

APPROVED BUDGET FY2020

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ADMINISTRATION

Mark S. Sanchez
Executive Director



Albuquerque Bernalillo County
Water Utility Authority



*Albuquerque Bernalillo County
Water Utility Authority*

Albuquerque, New Mexico

*Approved
Operating Budget
FY20*

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Albuquerque Bernalillo County Water Utility Authority

April 17, 2019

To: Debbie O'Malley, Chair

From:  Mark S. Sanchez, Executive Director

Subject: Resolution Appropriating Funds for the Operation of the Water Authority for the Fiscal Year Beginning July 1, 2019 and Ending June 30, 2020

Presented to the Board for review and consideration is the budget for the Albuquerque Bernalillo County Water Utility Authority (Water Authority) for Fiscal Year 2020 (FY20). This submittal is the Water Authority's financial plan for FY20. The development of this financial plan has been guided by the Water Authority's Five-year Goals, One-year Objectives, Performance Plan and the Guiding Principles. In the development of this budget, the Water Authority has taken a conservative financial approach to provide effective and efficient water and wastewater services balanced against projected resources. This budget is based upon the 10-year Financial Plan. It is balanced, fiscally conservative and sound.

The Water Authority has developed the budget according to the utility's projected estimated revenues. General Fund revenue for FY20 is estimated to be \$231.3 million, representing an increase of \$5.5 million from the FY19 revised budget amount. There is no rate increase proposed for FY20.

The General Fund operating expenses for FY20 are \$231.3 million, representing an increase of \$15.7 million from the FY19 revised budget, including interfund transfers. This is comprised of an increase of \$1.6 million for salaries and benefits, an increase of \$1.9 million for operating expenses, and an increase of \$12.2 million for interfund transfers to the capital and debt service funds. In February 2019, the Water Authority amended the budget for \$0.5 million for the increased operating and maintenance expenses for the San Juan-Chama project and for a one-time \$0.6 million increase in the transfer from the General Fund to the Debt Service Fund for the 2018 revenue bond interest payment. In June 2019, the Water Authority amended the budget for \$0.5 million for a one-time increase in Risk for payment of prior year insurance claims. Personnel expenses include a 2.0% step increase in wages and a 12.0% increase in health benefit costs. The most significant expense continues to be debt service payments, which comprise 34.3% of the total General Fund operating expense in FY20.

For FY20, General Fund revenues, including an addition of \$4.8 million from fund balance, are expected to be equal to proposed expenses. This amount will bring the Working Capital or Fund Balance to \$39.9 million at June 30, 2020, net of the rate reserve fund balance. The Water Authority's target is to maintain its Fund Balance at 1/12 of the annual budgeted operating expenses as defined by the Water Authority's Rate Ordinance. For FY20, the Rate Reserve fund is \$9.0 million.

Also submitted in a separate resolution is the Capital Improvement Program (CIP) budget for FY20. This budget reflects the Water Authority's commitment to spend \$250.0 million to upgrade its sewage treatment plant and an additional \$36.0 million per year to cover the costs of routine replacement of aging pipes, pumps and other infrastructure, as recommended in an asset management study commissioned by the Water Authority. The proposed CIP appropriation for FY20 is \$68.3 million. \$58.0 million is appropriated for the level one priority basic capital programs, \$4.0 million for growth-related projects, \$6.0 million for special projects, and \$0.3 million for Water 2120 projects. The \$6.0 million for special projects is comprised of \$2.0 million for

Automated Meter Infrastructure (AMI), \$1.0 million for steel water line replacement, \$0.4 million for various renewable energy projects, and \$2.6 million for various identified projects.

This budget represents the Water Authority's coordinative effort to bring to the Board a financial plan that will provide the necessary funding to perform all the varied operational and administrative functions, to provide customers with quality water and wastewater service and address the Water Authority's priorities for FY20 to improve services and gain operating efficiencies.



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Maggie Hart Stebbins
Pablo Rael, Ex Officio Member
Mark S. Sanchez, Executive Director



GOVERNMENT FINANCE OFFICERS ASSOCIATION

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Award*

PRESENTED TO

**Albuquerque Bernalillo Co. Water Utility Authority
New Mexico**

For the Fiscal Year Beginning

July 1, 2018

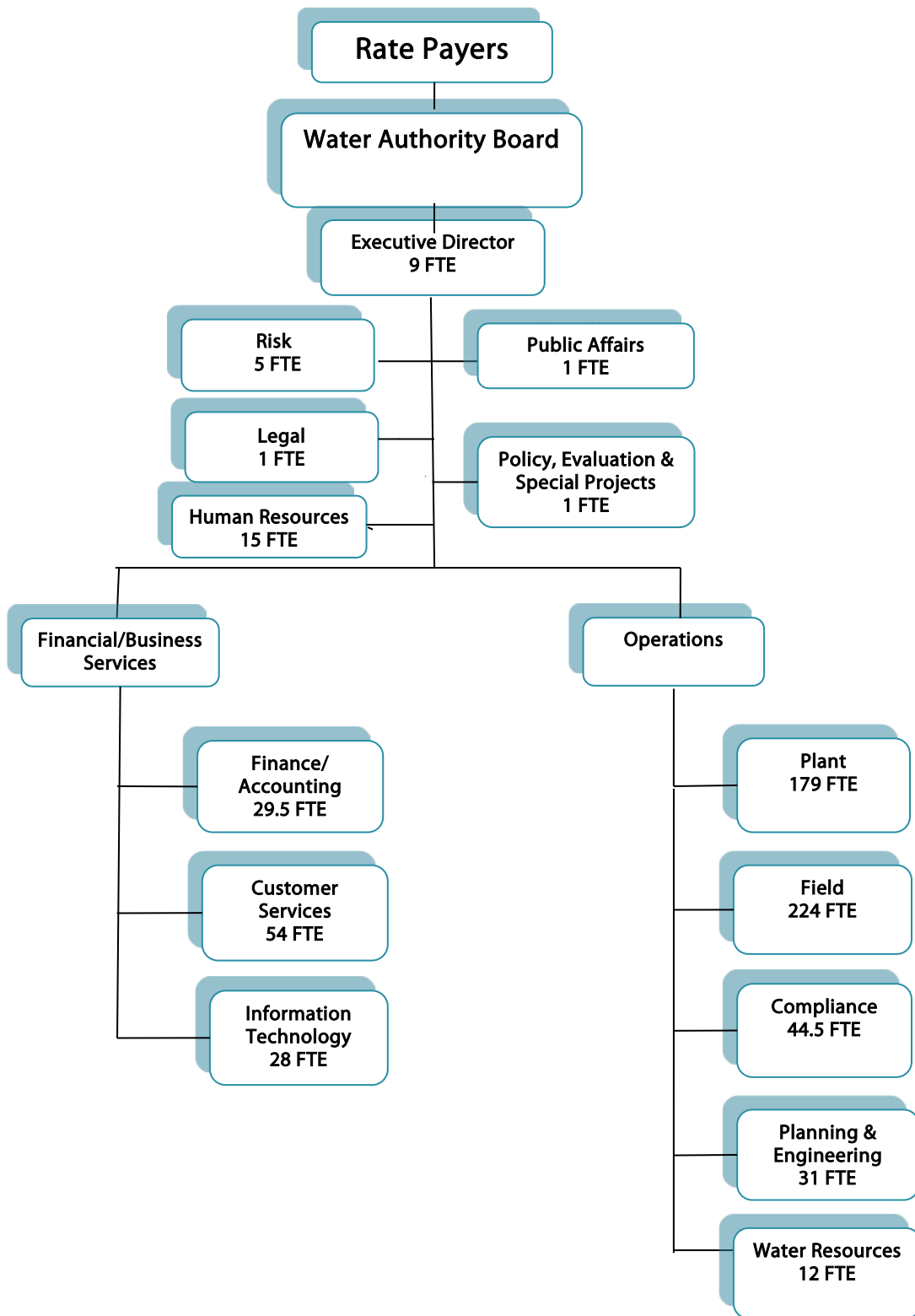
Christopher P. Morill

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to **Albuquerque Bernalillo County Water Utility Authority, New Mexico** for its annual budget for the fiscal year beginning July 1, 2018. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

ORGANIZATION CHART



READER'S GUIDE

The **Approved Budget** presents all funding issues by program strategy and division levels for all operating funds. The **Appendix** is the **Performance Plan**, which assesses the performance of the Water Authority using measures that are designed to help the Water Authority improve its operational efficiency and effectiveness. These performance measures help guide the operating and capital budgets in allocating the Water Authority's financial resources, thus making these budgets performance-based.

The **Approved Budget** has 9 major sections: Executive Summary, Five-Year Goals and One-Year Objectives, Approved Budget & Financial Consolidations, Revenue Analysis and Economic Outlook, Functional Units, Capital Budget, Debt Obligations, Statistical and Supplemental Information and Appropriations Legislation.

Executive Summary: This section is designed as an overview, explaining the policies as well as outlining the budget.

Five-Year Goals and One-Year Objectives: This section explains the Water Authority's five-year goals and details the current one-year priority objectives.

Approved Budget & Financial Consolidations: This section contains Resources, Appropriations, Fund Balance/ Working Capital Tables by fund group, and the financial plan. The funds are presented with estimated ending fund balances for both the current year and the budget year.

Revenue Analysis and Economic Outlook: This section contains detailed information on the projected revenue and the Economic Outlook to be addressed in the coming year. This section also looks at the Albuquerque economy as it relates to the budget.

Functional Units: This section contains personnel information and functional unit information.

Capital Budget: This section explains the Water Authority's capital process which is prepared on an annual basis. Anticipated capital projects and the expected operating impacts are discussed as well.

Debt Obligations: This section provides tables and schedules of the Water Authority's debt obligations.

Statistical and Supplemental Information: This section contains statistical information that is useful to understand the budget and Water Authority operations. There is a brief explanation of the methodology used in budget preparation, a listing of acronyms, and a selected glossary of terms.

Appropriations Legislation: This section contains copies of the legislation that has been approved by the Water Authority Board.

The Appendix contains the **Performance Plan**, which contains performance measures organized by the Water Authority's Five-Year Goal areas. Each goal area is described by a goal statement which explains the long-term desired result for that goal. The purpose of these performance measures is to help the Water Authority understand how it is meeting its goals and to answer some of the basic questions: 1) Are we improving year to year? 2) How do we compare with the industry standard? 3) Are we increasing customer satisfaction?

The FY20 Approved Budget can be found at the Water Authority's website:

<http://www.abcwua.org/Finances.aspx>

The FY20 Performance Plan can be found at the Water Authority's website:

<http://www.abcwua.org/Finances.aspx>

BUDGET POLICIES AND PROCESSES

Budget Policies and Procedures Ordinance

NMSA 1978, Section 72-1-20, which created the Albuquerque Bernalillo County Water Utility Authority (Water Authority), along with the Water Authority's Budget Policies and Procedures Ordinance, requires the Executive Director to formulate the operating budget for the Water Authority. The Executive Director shall propose the budget to the Board at the April regularly scheduled meeting each year. The Water Authority Board then will approve or amend and approve the Executive Director's proposed budget, after the Board has received the budget and has deliberated on it, provided public notice and allowed for public input at or before the May regularly scheduled meeting.

Process for Preparing, Reviewing, and Adopting the Budget

Prior to issuing budget instructions, the Water Authority's Ten Year Financial Plan is revised to determine the revenue and appropriation levels that are projected for the budgeted fiscal year as well as how future years will be impacted by these financial decisions. Details of the assumptions, challenges, one-year objectives and working capital estimates used in the preparation of the FY20 budget are contained in the Executive Summary of this document. Once revenue and appropriation levels are determined, budget instructions are issued in January. A salary forecast is completed for review by the Executive Director. Expense data is accumulated at the current level and totals are reviewed to determine if other actions or changes in budget instructions must be made in order to achieve a balanced budget. Budget meetings are held with the Executive Director and Water Authority Senior Staff. During this process, divisions may request program expansions, offer plans for reducing costs, or propose revenue enhancements. One-year objectives and the Performance Plan for the fiscal year are submitted to the Board in March for April approval. The performance plan contains performance measures that guide the operating and capital budgets in allocating the Water Authority's financial resources and is driven by the five-year goals and one-year objectives. The Executive Director submits the proposed operating and capital budgets to the Water Authority Board on or before the 1st of April. This proposal includes the budgets, capital

program, and rate proposal which may recommend changes in rates and fees. After receiving the budget proposal from the Executive Director, the Water Authority Board schedules at least two public hearings on it. As a result of its deliberations and the information gathered at the public hearings, the Water Authority Board may amend the budget proposal at any time prior to approval at the May regularly scheduled meeting.

Process for Amending the Budget after Adoption

In accordance with the Water Authority's Budget Policies and Procedures Ordinance, the Water Authority Board, upon its own initiative or upon a recommendation by the Executive Director, may amend the operating and/or capital budget during the fiscal year to which it applies. No amendment to the operating budget shall result in total authorized expenses that exceed resources to be available for the fiscal year to which the budget is applicable. During the fiscal year, the Executive Director is authorized to transfer funds or change expense authority within and among line-item authority, as established by the annual appropriation resolution and other approved appropriations for operating purposes, if the transfer or change does not result in the increase or decrease in that line-item expense authority in excess of the cumulative amount of \$100,000 or 5% of the line-item authority, whichever is lower. Actions taken by the Executive Director to transfer funds or change expense authority within and among line-item authority shall be reported in detail to the Water Authority Board at its next regularly scheduled meeting. The Executive Director may transfer funding of up to 10% of an existing capital project within adopted projects as approved by the Board provided that the change does not significantly alter the project's scope. Any change which exceeds this amount requires Water Authority Board approval.

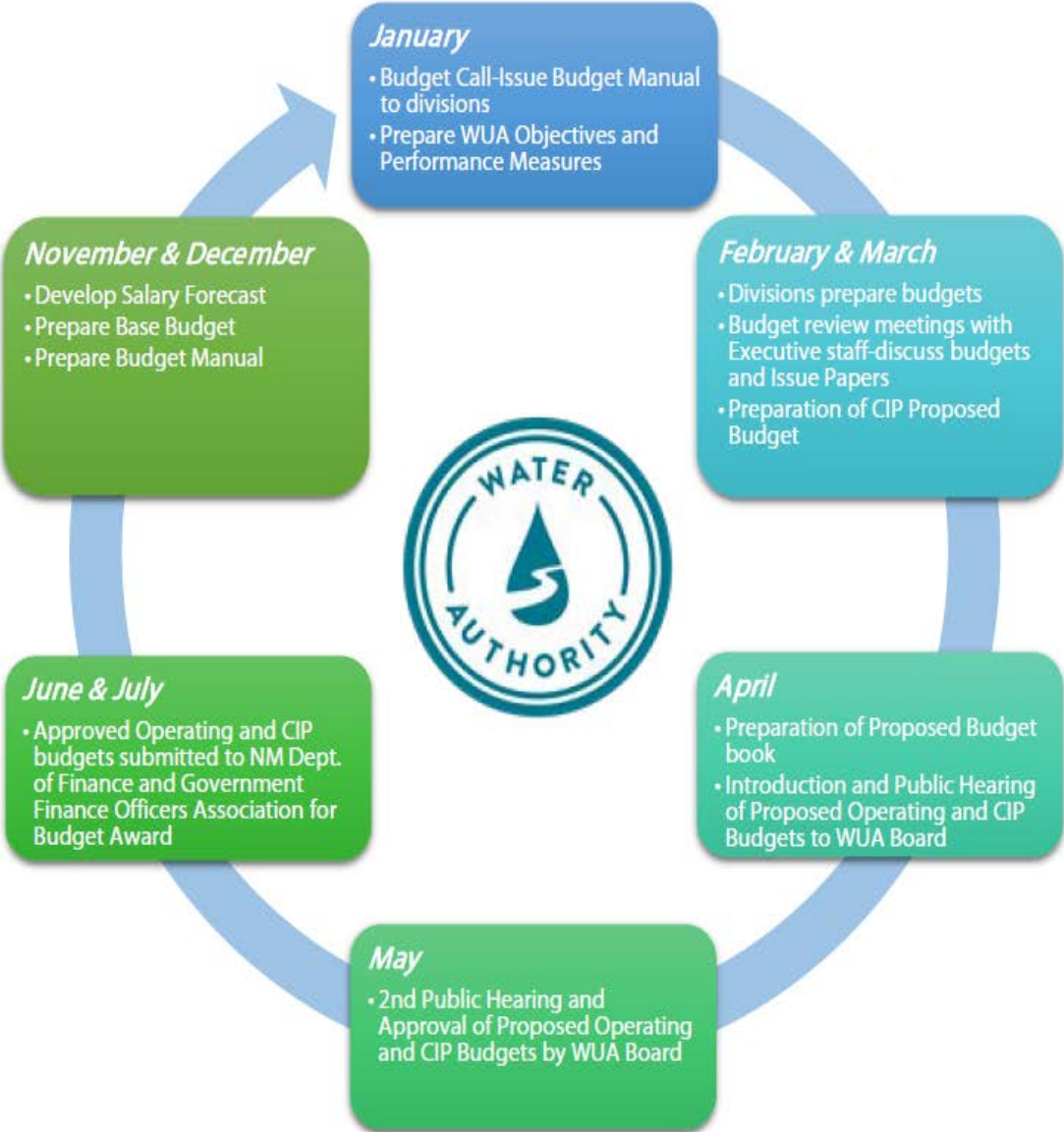
BUDGET POLICIES AND PROCESSES

Budgetary and Accounting System Requirements

The Water Authority uses the accrual method for both the budget and accounting basis. Revenues are recognized when earned, and expenses are recognized as they are incurred. The Water Authority is operated as an enterprise fund, which is an accounting entity with a self-balancing set of accounts established to record the financial position and results that pertain to a specific governmental activity. Appropriations are at the

fund level, the level at which expenses may not legally exceed appropriations. Budgetary control is maintained by a formal appropriation and encumbrance system. Appropriations may be made or modified during the year by a legally adopted resolution. Appropriations revert to fund/working capital balance to the extent they have not been expended or encumbered at fiscal year-end.

BUDGET PROCESS FLOW CHART



BUDGET CALENDAR OF EVENTS

Jan	Begin discussion on Water Authority's Performance Plan
Jan - Mar	Divisional preparation of FY20 Operating Budget request. Meetings between Water Authority Executive Director, Chief Operating Officer, Chief Financial Officer and Division Managers
Jan-Mar	Preparation of FY20 CIP Budget request. Meetings between Water Authority Executive Director, Chief Operating Officer, Chief Financial Officer and Division Managers
Jan – Feb	Preparation of Water Authority Objectives and Performance Measures
Jan 28	Budget Call to Operating Divisions
Feb – Mar	Budget review with Executive Director, Chief Operating Officer, Chief Financial Officer and Division Managers
Feb 28	Proposed budgets due to Finance Division, Includes all Issue Papers and Organization Changes
Mar 20	CIP Budget Due to Finance Division
Mar 20	Approval of Water Authority Objectives at Water Authority Board Meeting
Apr 1	Proposed Operating and CIP Budget Documents Prepared and Printed
Apr 1	Proposed Operating and CIP Budget Documents submitted to Water Authority Staff
Mar 28	Technical Customer Advisory Committee Presentation
Apr 17	Introduction and Public Hearing of Proposed Operating and CIP Budgets at Water Authority Board Meeting
May 22	2 nd Public Hearing and Approval of Proposed Operating and CIP Budgets at Water Authority Board Meeting
June 1	Proposed Operating and CIP Budgets due to NM Department of Finance and Administration (DFA)
July 31	Approved Operating and CIP Budgets due to DFA and submission to GFOA



EXECUTIVE SUMMARY

*Approved
Operating Budget
FY20*

MISSION, FY20 HIGHLIGHTS, AND FUND BALANCE

The Albuquerque Bernalillo County Water Utility Authority (Water Authority) identifies resources to provide quality water in sufficient quantity, collect and treat wastewater to acceptable standards, provide professional utility engineering services, and provide utility customer services. The Water Authority operates and maintains water pump stations, reservoirs, wells, water lines, the San Juan-Chama Drinking Water Treatment Plant, the Southside Water Reclamation Plant, the Soil Amendment Facility, sewage lift stations, odor control facilities, and sanitary wastewater lines. The Water Authority also works to secure the region with a safe, adequate, and sustainable water supply.

Mission

The mission of the Albuquerque Bernalillo County Water Utility Authority is to:

Assure responsive Customer Service. Provide reliable, high quality, affordable and sustainable water supply, wastewater collection treatment, and reuse systems. Support a healthy, environmentally-sustainable, and economically-viable community.

FY20 Budget Highlights

The FY20 Executive Director's Approved Budget establishes the Water Authority's financial plan and uses the Goals, Objectives and the Performance Plan as guides for the appropriation of funds. The Water Authority, in conjunction with the operating divisions, developed this budget by determining those essential costs necessary to successfully run the utility operation.

Assumptions

In the preparation of the FY20 budget, certain assumptions were made related to the operations of the Water Authority, the economic climate and system growth within Bernalillo County and the City of Albuquerque.

- **Water and Wastewater Revenues.** Budgeted total operating revenues were projected using a 5-year historical trend based upon growth and consumption. The trend was structured by class of customer as well as by service size of each class. The projections also

take into account the Water Authority's continued conservation efforts.

- **System Growth.** System growth is based on a 2% growth factor; however, this growth is offset by estimated water conservation of 1%.
- **Utility Expansion Charges.** Utility Expansion Charges decreased by \$1.5 million, reflecting the current trend in the development of residential housing.
- **Wage Adjustments.** There is a 2% cost of living adjustment for FY20.
- **Fringe Benefits.** Fringe Benefits reflect an increase of 12%.
- **Target Fund Balance/Working Capital Balance.** The target fund balance/working capital balance for the General Operating Fund will be equal to 1/12th of the annual budgeted operating expenses.
- **Conservative Projection of Revenues and Expenses.** The budget is based on conservative revenue and expense estimates.

Challenges

Among the challenges facing the Water Authority in FY20 are managing the increasing costs of chemicals and electricity for water treatment. The Water Authority operates and maintains two water systems, the well/aquifer system and the surface water treatment system. Although the well system usage will be reduced as the surface water system increases capacity, the well system will still have to be fully operational to supplement the surface water, as necessary. The operation of these systems represents a dual cost for the Water Authority. The increasing costs associated with chemicals and electricity also impact the operation of the Southside Water Reclamation Plant which continues undergoing extensive renovations begun in FY10.

The Water Authority also operates the Southside Re-use Program which uses treated wastewater from the Southside Water Reclamation Plant to irrigate turf at parks, fields and other recreational areas. The projected costs of the reuse project have been included in the approved budget.

MISSION, FY20 HIGHLIGHTS, AND FUND BALANCE

One Year Objectives FY20

The One-Year Objectives are categorized by the Water Authority's Five-Year Goal areas. The Water Authority has developed guiding goal statements for each goal area which explains the long-term desired result for that goal. The continuous performance programs help the Water Authority to identify gaps in service delivery or performance. The Water Authority's performance measures are used to help monitor the Water Authority's performance and to develop performance targets. With the performance measures being used to identify gaps, the One-Year Objectives, which are policy directives from the Water Authority Board, are used to close performance or service delivery gaps and improve performance levels.

Some objectives are related to completing projects or improving programs. Some of the FY20 objectives are tied to resources contained in the FY20 Approved Budget. A few of the objectives are carried over from FY19 either because they require more time to complete or are ongoing issues. Some of the objectives are tied to the Performance Plan in order to improve operations and/or customer service.

Fund Balance/Working Capital

In the FY20 budget, revenues are projected to equal expenses in the General Operating Fund. Surplus revenue will be added to the balance to achieve a Fund Balance/Working Capital equal to 1/12th of the annual budgeted operating expenses.

FY19 ACCOMPLISHMENTS

As we look forward to FY20, we also reflect on the utility's successes in the preceding year. These included:

- Receipt of a triple-A bond rating from Standard & Poors (S&P), which cited the Water Authority's "strong financial management policies and practices...robust planning efforts...[and] strong levels of pay-as-you-go funding" in its rating decision.
- A Platinum Award for Utility Excellence from the Association of Metropolitan Water Agencies (AMWA). AMWA noted the utility's focus on delivering affordable, high-quality water while tackling infrastructure rehabilitation and resource management challenges.
- Earmarking additional funding to continue a project to extend municipal water service to the historic South Valley neighborhood of Los Padillas, a 300-year-old semirural enclave where shallow domestic wells are associated with potential public health problems.
- A cooperative agreement with the federal government to use surface water owned by the utility to maintain flows in the Rio Grande during a persistent drought that threatened to dry the river.
- The Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award.
- GFOA Certificates of Achievement for Excellence in Financial Reporting (both Popular and Comprehensive).
- The Water Authority sent both a men's and women's team to participate in the Rocky Mountain American Water Works Association water line tapping competition. The Water Authority's fastest tapping time was just over 2 minutes, which garnered 3rd place in the competition.

Operations

The Southside Water Reclamation Plant (SWRP) is on track to finish the fiscal year with just 1 NPDES Permit Exceedance (there were none in FY18). The SWRP facility generated approximately 27% of its power requirements using digester gas and another 2% using renewable solar power from an on-site solar array. The plant was able to process 20-25% of the Surface Water Treatment Plant (SWTP)'s iron sludge solids; this provided odor

control benefits in the collection system and at SWRP, significant reductions in digester gas, and lower capital expenses for the new SWTP solids handling system. The Soil Amendment Facility is averaging 66% of all bio-solids being composted.

In calendar year 2018, the Surface Water Treatment Plant (SWTP) produced a 53% of all water for the Water Authority; the drought had a huge impact on the volume produced. The treatment plant also met the Partnership for Safe Water turbidity goal over 99.5% of the time during the year and submitted the Phase III Self-Assessment for the program. During the fiscal year, plant staff completed and issued a Facility Operation and Maintenance Plan; a 1-stop document for how the facility works.

Groundwater Operations performed a pilot test of the Powervent system at Pajarito Reservoir. This test, along with active management of system water quality, eliminated 30 million gallons of water that had to be flushed. Groundwater also completed in-house asset renewal/upgrades/maintenance work to pump control valves, chlorine residual measurement, volt/amp test stations, large diameter valve exercising at 7 pump station & reservoir sites and started a pilot program to refurbish 40-year old motor control center pump starter equipment at 3 well sites.

Field Distribution crews installed 12,000 additional Automated Meter Infrastructure (AMI) meter devices. The division received 30,000 line locate requests from New Mexico 811 for excavations during the fiscal year; of these, 15,000 requests required onsite investigation by a line locator. Remote monitoring of pressure reducing valves was incorporated at select sites throughout the service area. The monitoring has increased response times and supported the preventative maintenance program of the division. The Los Padillas water line extension continued throughout the year. The constructed water lines have been tested for compliance and are available for domestic connection and fire suppression.

FY19 ACCOMPLISHMENTS

Large (3" and larger) meter maintenance is recurrent to ensure accurate consumption tracking for the utility's largest users. 290 meters were tested for accuracy, 35 were repaired, 86 were replaced and 15 complete rehabilitations (complete vault and/or lid) were completed.

Wastewater Collections continued to implement the Capacity Management Operations and Maintenance (CMOM) program. As part of the program, staff inspected unlined large diameter interceptors, developed a prioritized rehabilitation plan based on actual conditions observed and communication with entities potentially impacted by public or private sewage spills continued to be enhanced and documented in the Overflow Emergency Response Plan (OERP), which is a portion of the CMOM.

Combined efforts of Collections and SWRP Plant Maintenance staff, along with contractors, installed carbon filters at Lift Stations 20 and 24, addressing odor concerns, 6 vacuum stations and 1 interceptor. Staff also responded to the simultaneous loss of PNM power to three vacuum stations. By utilizing the Standard Operating Procedures developed, portable generators were brought to the two stations without a standby generator and power was restored without loss of service to the public.

Collections staff developed a WATS model for the study of the wastewater collection system. This model will allow analysis of odor and corrosion rates under various operational and chemical addition approaches.

Planning & Engineering Maps & Records section updated the Water Systems Map and is close to completing the Field Asset Global Positioning System (GPS) Project to map over 50,000 valves into the system. One Stop Shop is progressing with the draft Guide to Development and has created an availability statement transparency site. Central Engineering managed major CIP projects including the Southside Water Reclamation Plant Renewal Program, Interceptor Renewal Program and Small Diameter Sewer Renewal.

Water Resources updated their education activities to align with NextGen Science standards, which were adopted by NM schools in 2018. This allows staff to go to the schools and provide various educational opportunities to the students. Other

accomplishments include: 650 acre-feet of water was infiltrated into the Bear Canyon Arroyo; leasing of 20,000 acre-feed of San Juan-Chama water to the Bureau of Reclamation; hiring a new Irrigation Specialist position; planting of 1,287 desert-friendly trees and developing agreements with Bernalillo County and City of Albuquerque parks departments on the planting of desert-friendly trees; and finalizing the Rivers and Aquifers Protection Plan (RAPP).

Compliance

The Compliance division submitted comments on the National Pollutant Discharge Elimination System (NPDES) permit draft. Customer conversations were held to engage ratepayers on water quality issues and to optimize the annual Water Quality Report. This information will be used to make the Water Quality Report easier to read while maintaining the regulatory requirements of a consumer confidence report. Sampling in drinking water began for the fourth Unregulated Contaminant Monitoring Rule (UCMR4). The Water Quality Laboratory completed an audit from the American Association for Laboratory Accreditation (A2LA) and received accreditation from the association. Sampling for Pharmaceuticals and Personal Care Products (PPCPs) was performed. This sampling will be used to create a report that will compare monitoring from this year to the previous PPCP report of 2011.

Administration, Employee Relations and Development

The Risk/Safety program developed emergency action plans and conducted fire drills at various locations. Staff developed a policy for "sharps" (i.e. needles) handling and disposal, provided respirable dust and noise monitoring for various employees, revised the Audiogram policy, and conducted activities for National Safety Month. The Risk Manager developed insurance coverage for Underground Storage Tank pollution to meet State requirements and conducted a Request for Proposal (RFP) for the insurance Broker of Record.

Human Resources Wellness staff coordinated the annual Employee Safety picnic and offered various wellness/fitness challenges and programs. Human Resources staff rolled out a new applicant online system which was named AuthorityWorks from a contest among employees. The new system will

FY19 ACCOMPLISHMENTS

allow the public to create profiles and select categories of jobs to be notified for when they become available. Consequently, AuthorityWorks will allow promotion of our application site through job fairs and other media. In addition, it allows for continuous recruitment and “advertisement until filled”. The system will be much simpler for the applicant, will assist HR in qualifying applicants and interface with hiring managers.

The certification training programs continue to develop employees’ knowledge and skills in various positions, including water and wastewater operations and maintenance, dispatch, and customer service. Sixty-six employees were promoted throughout the Water Authority training programs; fifty-five employees received Train-the-Trainer certification; twenty-four employees completed the 40-hour New Supervisor class; and fifty-five employees received a total of \$66,552 in tuition assistance.

Budget, Finance and Business Management

The Finance Accounting section submitted the FY18 Comprehensive Annual Financial Report (CAFR) to the Government Financial Officers Association (GFOA) for the Certificate of Achievement for Excellence in Financial Report program and the Popular Annual Financial Report (PAFR) program. With the Maximo Phase II implementation, staff completed a policy related to the disposition of assets, drafted the resolution to assign an Asset Disposition Committee in accordance with State statute, and assisted in the development of written processes and procedures for the addition and deletion of assets in Maximo. Purchasing implemented the new procurement code that went into effect the beginning of the fiscal year, revised and implemented property disposition procedures, completed a final draft of Warehouse Ordering and Inventory Policies and Procedures, and oversaw the Maximo Phase II implementation for Purchasing and Inventory related functions. Budget staff submitted the FY19 Approved Budget to GFOA for the Distinguished Budget Presentation Award.

Customer Services successfully implemented and upgraded the Customer Care & Billing (CC&B) system. The upgrade provides users with increased functionality and efficiency and streamlined internal processes that ultimately benefit the ratepayers. Another feature of the upgrade is the Water Authority Virtual Education System (WAVES). This feature provides users quick access to business process topics, procedures, work instructions and frequently used forms. In the Customer Care Training Program, 28 staff members received over 1,200 hours of training and 4 employees advanced to the next level in the program.

Information Technology (ITD) continued to support the organization by utilizing a service desk ticketing system, implemented the Asset Onboarding procedures for all IT assets, inventoried and labeled all IT computer-related assets, and implemented email phishing simulations & training program. Infrastructure accomplishments include: implemented security tools, virtualized SCADA hardware infrastructure creating cost savings, automated software pushes and patching and provided necessary infrastructure for the enterprise system upgrades. Network accomplishments include: upgraded the network at the Soil Amendment Facility (SAF), eliminated managed services for network equipment/services, upgraded the call center software and installed infrastructure to migrate from the 800Mhz radios to push-to-talk. The Applications group completed Phase II of the Maximo upgrade, completed the CC&B upgrade, installed Splunk for Water Quality, implemented AuthorityWorks applicant online system, and created a GIS-Fire Hydrant inspection process.

Security continues to be a major concern. To address security concerns, ITD submitted an Information Security Plan (National Institute of Standards & Technology compliant) and related security policies, installed security tools, and upgraded the credit card readers to be PCI compliant.

FY20 HIGHLIGHTS

The FY20 Executive Director's Approved Budget establishes the Water Authority's financial plan and uses the Goals, Objectives and the Performance Plan as guides for the appropriation of funds. The Water Authority, with input from the operating divisions, developed the budget by determining those essential costs necessary to successfully run the utility operation.

Helping to guide this effort is *Water 2120*, the Water Authority's 100-year water resources management strategy, adopted in September 2016. *Water 2120* incorporates the latest science regarding the effect of climate change on the availability of surface water supplies. Using climatic hydrologic simulation models from the Office of the State Engineer, Sandia National Laboratories and the U.S. Bureau of Reclamation and Geological Survey, among other agencies, it takes climate variability into account and for the first time looks at a 100-year time horizon for the greater Albuquerque area. Three different demand scenarios along with three supply alternatives are used to examine the need for new supplies while maintaining a ground water resource for future generations. A portfolio of supply options is used to fill the gaps to meet future demand over the next 100 years. A key component going forward will be the shift from acquisition of water rights to the development of reuse facilities to have a more resilient supply.

Operations

The operational cornerstone of *Water 2120* is the San Juan-Chama Drinking Water Project (DWP), which will continue to have a major positive impact on the ground water resources in the Middle Rio Grande. After ten years of operation, the DWP – along with conservation and other resource management efforts – has resulted in rising aquifer levels throughout the service area as documented by the U.S. Geological Survey. A video documenting this success is available for viewing at:
<https://www.youtube.com/watch?v=Z6stQZw2L1M&feature=youtu.be>

The Water Authority will continue to operate two potable water supply systems, the surface water and the ground water systems. This dual system operation will continue into the future with the

primary source of supply being treated surface water from the DWP. The DWP provided 53% of all water distributed to Water Authority customers in calendar year 2018. The Water Authority's goal is to have the DWP supply 70-75% of all customer demand in calendar year 2019. Flow conditions in the Rio Grande may limit the ability to fully realize this goal on a consistent basis.

The Water Authority began a major renovation of the Southside Water Reclamation Plant (SWRP) in FY10 called the Reclamation Rehabilitation and Asset Management Plan (RRAMP). The RRAMP is a multi-year program to renew the treatment processes at the plant. Several key improvement projects in this program have been completed, including the Preliminary Treatment Facility (PTF), aeration basin and air piping renovations, final clarifier renovations, and major renovations and improvements to the Solids Dewatering Facility (SDF). Improvements will also be made to the Anaerobic Digesters, Primary Clarifiers, Secondary Sludge Thickening Facilities, plant-wide electrical systems, and other SWRP facilities.

Plans are to continue to increase the amount of wastewater bio-solids that are composted and sold while not "over-saturating" the regional market for bio-solids compost and sell at least 30% of the total quantity of bio-solids. SWRP staff will focus on completing work on the 9 areas selected for focused improvement from the AWWA Partnership for Clean Water Phase III Self-Assessment. Staff will also continue updating plant asset records, preventative maintenance, and preventative maintenance routes in Maximo.

In FY20, the SWTP will focus on construction of a dewatering system for iron sludge and managing the sludge discharges to the collection system. The permanent fluoride addition facility will be completed during the fiscal year. SWTP staff will complete work on the 8 areas selected for focused improvement from the AWWA Partnership for Safe Water-Treatment Phase II Self-Assessment.

FY20 HIGHLIGHTS

For FY20, Groundwater Operations will fine-tune system operations to the State Drinking Water Act (SDWA) standards for arsenic and the prescribed range for fluoride. Staff will be renovating/replacing aging motor control centers and renovate interior piping and valves at several pump stations, replacing older ClorTec disinfection systems with new PSI systems, renovating the Charles Wells Reservoir, and repairing/replacing reservoir hatches in advance of the 2020 Sanitary Survey.

Wastewater Collections continues to implement the CMOM program and prepare the CMOM Program Self-Assessment during FY20. Staff will clean small diameter lines in major intersections that have not been cleaned in the last 10 years, televise and assess the condition of 5% of the small diameter system and develop and implement a process to capture new construction CCTV for inclusion in both Maximo and IT Pipes Repository after GIS unique identifiers are established.

Water Distribution Field will continue the Automated Meter Infrastructure (AMI) Pressure Monitoring project and assess opportunities for operational efficiency within pressure one 4ER and the Paseo Del Norte/Eagle Ranch interconnection. To support the water loss audit and strategic water loss plan, staff will conduct a statistically significant number of small meter tests. Staff will continue implementation of the AMI project by modernizing aging meter infrastructure with smart meters to increase revenue, support conservation efforts and provide better customer service.

Water Resources will expand their conservation program by launching the 505Outside website to all customers, develop a program to assist low-income customers with water efficiency efforts, and end the rebates for pressure reduction valves and add rebates for organic mulch and flow and moisture sensors. Education efforts will continue with the design and implementation of a water project to engage high-risk middle school students, partner with Explora on the new STEAM Science Center water exhibits and create a new puppet show and coloring book for the 2019-20 school year. Water Resources will identify the location and type of the next ASR project and begin well capture zone analysis to identify the

areas most in need of protection surrounding well heads. To further environmental goals, Water Resources will fund and collaborate on a study to age larval Rio Grande silvery minnow to tie life history events to hydrologic events, perform maintenance on the La Orilla and Paseo del Norte restoration sites in partnership with CABQ Open Space and fund and participate in the Executive Committee of the Rio Grande Water Fund.

Planning & Engineering will complete the Guide to Development, complete the Field Asset GPS Coordinates Program, and prepare a list of recommended modifications to the Expansion Ordinance in coordination with the Guide to Development. Staff will be developing a proposed fee schedule for Utility Development deliverables and begin work on a Construction Inspection Manual. Maps/Records staff will develop GIS layers for SAD Interceptor Flows and tapping permits.

Compliance

Water and Wastewater Operations are regulated by a myriad of federal, state, and local environmental permits, regulations, and rules. The Compliance Division continues to maintain a matrix that is updated quarterly of regulatory requirements to monitor regulatory initiatives to define operational impacts and develop compliance strategies.

In FY20, the NPDES program will work with the EPA on obtaining a final NPDES permit. The new permit may require changes to the sampling plan. The report on Pharmaceuticals and Personal Care Products will be issued. UCMR4 sampling will continue on drinking water. The Water Quality Lab will continue optimizing LabVantage and move towards updated laboratory standards required by accreditation.

FY20 HIGHLIGHTS

Administration, Employee Relations and Development

The Water Authority will continue to conduct periodic activities to engage, educate, and provide updates to customers, legislators and neighborhood associations regarding Water Authority activities and initiatives, and offer opportunities for dialogue and feedback.

In FY20, Risk/Safety will research defensive & over-the-road driving programs, develop safety posters for various Water Authority locations including hazard/exposure information, chemicals in buildings and safety gear required posters and develop the use of Informacast for safety use.

Human Resources wellness staff will continue offering wellness challenges for individuals and departments. At least two fitness challenges per quarter will be offered in conjunction with nutrition, physical activity and weight loss tips as well as disease and injury prevention topics to employees.

Human Resources staff will be distributing an Employee Satisfaction and Engagement Survey in the fall of 2019. Staff will then prepare a report on the results and distribute by the spring of 2020. With the new AuthorityWorks online application system, staff will create new recruitment brochures and a new benefits flyer for interviewees. Other areas of focus for FY20 include: new and improved employee incentives, improve the intern programs, continue with succession planning and knowledge transfer efforts and continue to update procedures and administrative instructions.

The budget also includes nonrecurring funding for an employee safety incentive program. This program will reward employees for cost savings that result from a decrease in work-related losses. Funding for this program is contingent on the Water Authority generating the same or a greater amount in savings. This incentive program has been an effective tool in the reduction of the Water Authority's Workers Compensation expense.

Budget, Finance and Business Management

Finance will submit to GFOA the FY20 Approved Budget for the Distinguished Budget Presentation Award, the FY19 Comprehensive Annual Financial Report (CAFR) for the Certificate of Achievement for Excellence in Financial Reporting and the FY19 Popular Annual Financial Report (PAFR) for the Popular Annual Financial Reporting Award. The division believes that all three financial documents meet or exceed the recommended requirements to successfully receive each award and to also be nationally recognized by GFOA for these accomplishments.

In FY20, Accounting Services will continue the Maximo implementation with the inventory of all assets, updating the data for each asset, updating install dates, purchase price and replacement cost, updating depreciation schedules and developing risk/insurance management reports of the assets.

Purchasing will fully implement the new Warehouse Ordering and Inventory Management Policy, complete the implementation and go-live of the new online bidding/proposal evaluation tool, prepare for moving all inventory and staff from the Pino Warehouse location to the new warehouse at Surface Water and solicit and award new on-call construction/engineering agreements and implement new administrative procedures to improve the effectiveness of those contracts.

Budget will continue to provide budget and ERP system training to utility staff and schedule monthly budget update meetings with staff.

In FY20, Treasury will complete the transition of banking services per the RFP issued in FY19, partner with CSD, ITD and Public Affairs to update bill presentment and payment navigation on the Authority's website and maintain a diversified investment portfolio.

In FY20, dispatching functions will transfer from WA Field Operations to Customer Services. CSD staff will utilize the increased functionality of the upgraded CC&B system to expand the use of templates, known as campaigns, to convert

FY20 HIGHLIGHTS

existing business processes and to convert current rates to the new rate engine and to implement the Water Resources Charge. CSD will issue an RFP and award a contract with a vendor to implement a meter data management (MDM) system to store and manage data from AMI and non-AMI meters. CSD staff will participate in the AWWA Rate Study.

ITD Quality Assurance staff will upgrade utility desktop operating systems to Windows 10, identify and document all IT assets into Maximo, support the buildout of the new administration building and develop enterprise training initiatives.

ITD Infrastructure objectives for FY20 include upgrading the card key and video surveillance system to build in redundancy, implement backup and recovery solutions for SCADA and enterprise and support the buildout of the new administration building.

ITD Network staff will upgrade the SCADA fiber and network equipment at the Surface Water Treatment Plant, upgrade core network

equipment for the new administration building and upgrade end-of-life network equipment from previously leased equipment.

ITD Application staff will continue the Maximo upgrade, including: training, life cycle accounting, asset onboarding, storeroom, barcoding and mobile assessment. Staff will also perform a CC&B archive and purge, report standardization for Splunk-AVL and MeterSense applications, and lead upgrades to various enterprise applications: OneSolution, Kronos, Cognos and GIS.

IT Security will be a major focus in FY20. Staff will be: completing security awareness training videos for all Water Authority staff including a New Employee Orientation/Supervisor training security video, completing security policies and procedures, and reducing the overall risk assessment scores.

The rate reserve fund is \$9.0 million. The Water Authority will also provide deferred UEC collections on up to 50 affordable housing units developed by non-profit housing developers.

BUDGET, FINANCIAL AND DEBT POLICIES

Long-term financial policies are contained in state statute, and Albuquerque Bernalillo County Water Utility Authority ordinances. Five major policies are described by the various laws and instructions cited below. A final policy regarding the need to match nonrecurring revenue with nonrecurring appropriations is described but is not found in law or formal rule.

1. The adopted budget is balanced, and subsequent action will preserve the balance. Balance is defined as resources equal to or in excess of expenses for each fiscal year.

STATE STATUTES:

6-6-6. Approved budgets; claims or warrants in excess of budget; liability. "When any budget for a local public body has been approved and received by a local public body, it is binding upon all officials and governing authorities, and no governing authority or official shall allow or approve claims in excess thereof, and the allowances or claims or checks or warrants so allowed or paid shall be a liability against the officials so allowing or paying those claims or checks or warrants, and recovery for the excess amounts so allowed or paid may be had against the bondsmen of those officials."

BUDGET ORDINANCE PROVISIONS:

§ 2-1-3 BUDGET CONTENTS AND FORMAT.

"(A) The Executive Director's budget proposal submitted to the Board shall include: The Executive Director's budget message; An annual appropriation resolution recommended by the Executive Director for operating and capital; A complete statement of the non-capital project financial operation of the Authority for the fiscal year last completed; A comparable statement for the current fiscal year including expenditures to date and anticipated expenditures to the end of that year; A financial plan in comparable form for the fiscal year commencing on July 1 of the year in which the budget proposal is submitted.

The Financial Plan for the ensuing fiscal year shall include: All proposed expenditures for the administration, operation and maintenance and capital projects of the Authority; All interest and debt redemption charges; All anticipated revenues and other available resources by source and amount; The proposed means of financing all proposed expenditures.

A performance plan for the fiscal year commencing on July 1 of the year in which the budget proposal is submitted. The performance plan shall be connected to the five-year goals and contain performance measures that help guide the operating and capital budgets in allocating the Authority's financial resources."

"(B) The Authority budget shall be fund based."

"(C) The budget proposal shall be balanced and not propose expenditures in excess of resources anticipated to be available to the Authority for the fiscal year for which the budget is proposed."

BUDGET, FINANCIAL AND DEBT POLICIES

§ 2-1-8 BUDGET AMENDMENTS BY BOARD DURING FISCAL YEAR.

Upon its own initiative or upon a recommendation by the Executive Director, the Board may amend the operating and/or capital budget during the fiscal year to which it applies. No amendment to the operating budget shall result in total authorized expenditures that exceed resources to be available for the fiscal year to which the budget is applicable.

2. Authority goals and objectives are established and integrated into the budget process.

BUDGET ORDINANCE PROVISIONS:

§ 2-1-1 INTENT.

“(A) Laws 2003, Chapter 437, codified as NMSA 1978, Section 72-1-10 created the Albuquerque Bernalillo County Water Utility Authority (“Authority”) and provides for the administration and operation of the Authority. As part of the administrative responsibilities of the Authority, it shall establish and adopt five-year goals and one-year objectives, which goals and objectives shall be reviewed and revised annually by the Albuquerque Bernalillo County Water Utility Authority Board (“Board”). The Authority operating budget shall be formulated by the Authority’s Executive Director and be consistent with the goals and objectives as established and approved by the Board. In order to maintain uniformity, other legislation and policies of the Authority are to be consistent with these goals and objectives as well. The Executive Director shall propose the budget to the Board at the April regularly scheduled meeting each year with the Board to approve the budget as proposed or amend and approve it at or before the May regularly scheduled meeting.”

“(B) To adopt a goals and objectives process that encourages active citizen participation, that is linked to the budget process, that encourages performance measurement, and that is consistent with the desired conditions of the Authority’s service area, the Authority shall coordinate its goal setting with the City of Albuquerque and Bernalillo County governments.”

“(C) The Board’s adoption of goals and objectives, which will be valuable in themselves, will be major factors in determining funding for Authority programs and improvements in the operating budget and the capital improvements budget.”

“(D) This ordinance shall apply to all expenditures made by and approved by the Authority and shall supersede any existing policies governing the operating and capital budgets.”

BUDGET, FINANCIAL AND DEBT POLICIES

3. ABCWUA Board participates in the development of the Executive Director's proposed budget.

BUDGET ORDINANCE PROVISIONS:

§ 2-1-2 PREPARATION OF AUTHORITY BUDGET PROPOSAL.

"(A) The Authority shall prepare a proposed operating and capital budget taking into consideration the needs of the Authority's operations, and the resources anticipated to be available to the Authority for the fiscal year for which the budget is prepared."

"(B) The Executive Director shall propose an operating and capital budget to the Board at the April meeting of each year. This proposal shall include the budgets, capital program, and rate proposal which may propose changes in rates and fees." The public reviews and has an opportunity to comment on the proposed budget.

BUDGET ORDINANCE PROVISIONS:

§ 2-1-5 CONSIDERATION OF BUDGET PROPOSAL BY THE BOARD.

"(A) After receiving the budget proposal from the Executive Director the Board shall schedule at least two public hearings on it. As a result of its deliberations and the information gathered at the public hearings, the Board may amend the budget proposal at any time prior to the May regularly scheduled meeting."

4. Total revenues minus the expenses of the system shall be 133% or more of the debt service requirement.

RATE ORDINANCE PROVISIONS:

§ 1-1-2 COMPUTATION OF REVENUES, EXPENSES AND DEBT SERVICE; DETERMINATION OF DEBT COVERAGE; REQUIRED MONTHLY FIXED CHARGE.

"(B) Computation of Revenues, Expenses and Debt Service. At the end of each quarter of the fiscal year a determination will be made as to the total revenues, expenses and current debt service requirements of the system in accordance with definitions in §1-2(A). The determination will be made by the end of the first month following the end of each quarter. The results of the determination will be transmitted to the Water Authority."

"(C) Increasing Minimum Monthly Fixed Charges. So long as there are Senior Obligations outstanding, if the determination of §1-1-2(B) above shows that the net revenues are less than 133% of the debt service requirements on the outstanding Senior Obligations, the fixed monthly charge will be increased for water and sewer accounts. So long as there are Subordinate Obligations outstanding, if the determination of §1-1-2(B) above shows that the Net Revenues are less than 120% of the Debt Service Requirements on the outstanding Senior Obligations and outstanding Subordinate Obligations, the fixed monthly charge will be increased for water and sewer accounts. The increase in the fixed monthly charge will be a percentage of the established fixed monthly charges that produce additional revenues so that if the adjusted charges had been effective the

BUDGET, FINANCIAL AND DEBT POLICIES

previous quarter, the total Net Revenues would have been sufficient to meet the requirements of this paragraph. If the determination of §1-1-2(B) above shows that the Net Revenues are insufficient to meet the requirements above, it shall be determined if the revenue loss is due to efforts of Water Authority Customers to conserve water by reviewing usage patterns. If the usage study shows that the reduced revenues are due to conservation efforts, the Executive Director shall analyze the Utility's operations for the purpose of determining whether or not corresponding expense reductions can be effected and shall present any such expense reduction proposals to the Water Authority."

5. Nonrecurring revenue should not be used to support recurring expense. Nonrecurring revenue is produced from a one-time event, such as a change in reserve policy. Nonrecurring expenses include studies, capital projects, capital outlay, computer equipment, buildings, land and one-time expenses to pay off a loan, prior year litigation expenses or other similar expenses.

§ 2-1-11 FINANCIAL AND MANAGEMENT REPORTS.

"(B) Reports shall be received by the Board on a timely basis according to the following schedule:

(4) The midyear report shall be received for introduction at the Board meeting in February. The midyear report shall be accompanied by a midyear appropriation resolution for those programs which are projected to be overspent and which the Executive Director determines that expenditure controls cannot bring the programs within the limits of administration expenditure authority, \$100,000 or 5% of the line-item authority, whichever is lower. Mid-year appropriation adjustments shall be proposed only when caused by unexpected circumstances such as a natural disaster, unforeseen shifts in the national economy, and other events that constitute an emergency. Except as otherwise provided, the Executive Director and Board shall confine budget adjustments to the midyear resolution. The midyear report and midyear appropriation resolution shall be reviewed by the Board at a minimum of one public hearing."

The Authority's Debt and Capital Improvement Plan spending is integrated in the budget process and is mandated by ordinance.

§ 1-1-7 WATER AND SEWER SYSTEM AND UTILITY FINANCIAL POLICIES.

"(A) The term of each and every instrument of debt shall be 12 years or less; except for sustainable water supply projects. This policy shall not apply to the possible acquisition of other operating water and wastewater utility systems or to mitigate short term rate impacts."

"(B) At a minimum, an average of 50% of the cost of capital projects which constitute the normal capital program of the water and sewer system including the rehabilitation and replacement of existing facilities, and the construction of water wells, pump stations, reservoirs, service lines, other water lines, gate valves, revenue meters and meter boxes, sewer lines, odor control stations, and pumping stations, and treatment facilities shall be paid with cash rather than borrowed funds. The normal capital program excludes special capital projects such as the expansion of the wastewater treatment plants, arsenic mitigation, state and federal grant projects, state and federal mandated projects, and related to water resources management to achieve a sustainable supply of water. This

BUDGET, FINANCIAL AND DEBT POLICIES

policy shall not apply to the possible acquisition of other operating water and wastewater utility systems or to mitigate short term rate impacts.”

“(C) At a minimum, 25% of the cost of capital projects not included in the normal capital program of the water and sewer system shall be paid with cash rather than borrowed funds. This policy shall not apply to the possible acquisition of other operating water and wastewater utility systems sustainable water supply or to mitigate short term rate impacts.”

“(D) Utility Expansion Charge (UEC) revenues or those of successor development fees in excess of \$6 million per year shall be transferred to the Joint Water and Sewer Capital Funds. The transfer of these funds shall be made in the fiscal year following the most recent audited Comprehensive Annual Financial Report.”

“(E) Utility Expansion Charge rates shall be based on adopted policies of the Water Authority.”

“(F) Appropriations of cash transfers from water and sewer utility operating funds or debt service funds to a Joint Water and Sewer Capital Fund shall be made in the amounts appropriated during the year for which the appropriations have been made.”

§ 1-1-6 WATER AND SEWER REHABILITATION FUND.

“(C) Committed expenditures for the rehabilitation of water wells, pump stations, reservoirs, service lines, other water lines, gate valves and the committed expenditures for rehabilitation of sewer lines, odor control stations, pumping stations and treatment facilities from revenues in the Water and Sewer Rehabilitation Fund shall not be less than \$40 million dollars per year.”

DEBT POLICIES

The Water Authority’s Debt Management Policy & Guidelines provides for the following:

- Full and timely payment of principal and interest on all outstanding debt
- System revenue bonds shall be used as a source of funding, after considering alternative funding sources, such as federal and state grants and pay as you go financing
- Debt shall be incurred to finance capital improvements and long-term assets associated with the water and wastewater system. Types of projects include, but not limited to, constructing, acquiring, enlarging, extending, bettering, repairing or improving the water and wastewater system facilities. For a more detailed list refer to chapter 72, article 1 section 10K NMSA 1978 as amended
- Capital improvements plans should be developed, approved and financed in accordance with Rate Ordinances and the Decade Plan
- The Water Authority will evaluate the impact of debt amounts and debt service requirements of any new proposed debt within the overall context of outstanding debt
- Principal and interest retirement schedules shall be structured to: (1) meet available cash flow available to service debt, (2) achieve a low borrowing cost for the Water Authority, (3) accommodate the debt service payments of existing debt and (4) respond to perceptions of market demand. Level debt payments and shorter maturities shall always be encouraged to demonstrate to ratepayers, investors and rating agencies that debt is being managed and retired prudently

BUDGET, FINANCIAL AND DEBT POLICIES

- Debt incurred shall generally be limited to obligations with serial and term maturities but may be sold in the form of other structures if circumstances warrant
- The term of each and every instrument of debt shall be 12 years or less; except for sustainable water supply projects. This policy shall not apply to the possible acquisition of other operating water and wastewater utility systems or to mitigate short term rate impact
- Debt incurred may be issued, at the discretion of the Water Authority, on either Senior, Subordinate or Super Subordinate liens on the System's net revenues
- The average life of the debt incurred should be no greater than the projected average life of the assets being financed
- The payment of debt shall be secured by net revenues of the joint water and wastewater system ("net system revenues")
- Maintain Post Issuance Compliance Guidelines that formalize post issuance compliance controls and procedures related to the Water Authority's financial and legal obligations (see Appendix)
- Inter-fund borrowing may be used as an alternative to conventional borrowing
- The Water Authority shall not pledge any Water Authority revenues to any conduit bond financings or guarantee indebtedness of others
- The Water Authority may use the services of qualified internal staff and outside advisors, including bond counsel, tax counsel, disclosure counsel, underwriters and financial advisors, to assist in the analysis, evaluation, and decision process
- The Water Authority shall select a method of sale that achieves the financial goals of the Water Authority and minimizes financing costs. Such sales can be competitive, negotiated or private placement, depending upon the project and market conditions. The recommendation by the Water Authority's Financial Advisor will be considered in the decision as to the most appropriate sale method
- The Water Authority shall make every attempt to earn and maintain the highest investment grade rating achievable
- Finance team members and Underwriters should be selected in accordance with the Water Authority Purchasing Procedures and the Debt Management Policy & Guidelines ("Debt Policy"). The selection should maximize the quality of services received while minimizing the cost to the Water Authority. Any subtractions or additions to the finance team members shall be subject to the Water Authority's Chief Financial Officer's ("CFO") approval. Selected underwriters and financial advisors shall adhere to the Municipal Securities Rule-making Board ("MSRB") and the Securities and Exchange Commission ("SEC") rules and regulations
- The Water Authority shall maintain good communications with bond rating agencies to ensure complete and clear understanding of the credit worthiness of the Water Authority
- Financial reports and bond official statements shall follow a policy of full, complete and accurate disclosure of financial conditions and operating results. All reports shall conform to guidelines issued by the Government Finance Officers Association ("GFOA"), Securities and Exchange Commission ("SEC") and the Internal Revenue Service ("IRS") to meet the disclosure needs of rating agencies, underwriters, investors and taxpayers.
- Federal income tax laws restrict the ability to earn arbitrage in connection with tax-exempt bonds. Every attempt shall be made to eliminate or minimize negative arbitrage.



*FIVE-YEAR GOALS AND
ONE-YEAR OBJECTIVES*

*Approved
Operating Budget
FY20*

MISSION AND OVERVIEW OF GOAL DEVELOPMENT

The Albuquerque Bernalillo County Water Utility Authority (Water Authority) identifies resources to provide quality water in sufficient quantity, collect and treat wastewater to acceptable standards, provide professional utility engineering services, and provide utility customer services. The Water Authority operates and maintains water pump stations, reservoirs, wells, water lines, the Southside Water Reclamation Plant, the Soil Amendment Facility, sewage lift stations, odor control facilities, and sanitary sewer lines. The Water Authority also works to secure the region with a safe, adequate, and sustainable water supply.

Mission

The mission of the Albuquerque Bernalillo County Water Utility Authority is to:

Assure responsive Customer Service.

Provide reliable, high quality, affordable and sustainable water supply, wastewater collection treatment, and reuse systems.

Support healthy, environmentally-sustainable, and economically-viable community.

Overview of Goal Development

The Water Authority Budget Ordinance requires that a Performance Plan be connected to the Five-Year Goals and contain performance measures that help guide the operating and capital budgets in prioritizing and allocating the Water Authority's financial resources. The Water Authority uses these measures to help improve its operational efficiency and effectiveness by identifying areas of improvement. The measures also provide a mechanism to conduct comparative analyses in order to implement quality improvement processes and enhance decision-making.

The Water Authority utilizes the *American Water Works Association's (AWWA) Benchmarking Performance Indicators Survey* (Survey) in developing its Performance Plan. The Survey provides utilities an opportunity to collect and track data from already identified and tested performance measures, based on the same collection process and definitions. The most recent survey data was compiled in 2018 by AWWA from 157 different utilities. The Performance Plan uses the survey data as a basis for its performance measures to track the Water Authority's performance with that of other utilities.

The FY20 Performance Plan can be found in the Appendix section of this budget document and on the Water Authority's website:

<http://www.abcwua.org/Finances.aspx>

FIVE-YEAR GOAL DEVELOPMENT

The Water Authority's Performance Plan is organized by its Five-Year Goal areas which are modeled after AWWA's business model. This model is based on fifteen successful quality achievement programs, including the Malcolm Baldrige National Quality Award Program, the Deming Award, and the International Standards Organization series of quality standards. The model characterizes the work of the typical water and wastewater utility around five business systems. The figure below shows the Water Authority's Five-Year Goals which parallels the AWWA model. The Water Authority also developed guiding goal statements for each goal area which explains the long-term desired result for each goal.

The Performance Plan contains 27 key performance measures. The performance measures are organized by the Five-Year Goal areas. The performance measures are linked to the Goal areas in that the tracking of the metric is used to achieve the long-term desired result for that goal.

Water Authority's Five-Year Goals & Guiding Goal Statements



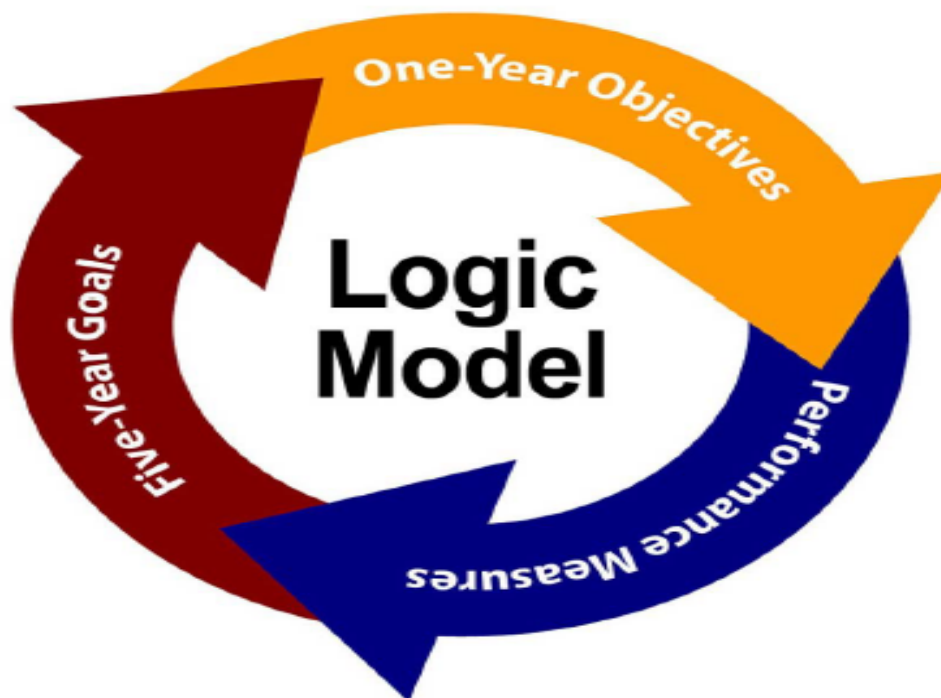
PERFORMANCE PLAN LOGIC MODEL

The Performance Plan presents each performance measure through an *evaluation logic model*. The logic model is a systematic and visual method that shows how performance measures quantify what is being done (inputs), how well it is being done (outputs), and why it is being done (outcomes). *Inputs* are the specific data needed to construct and calculate each performance measure. These resources may include dollars, hours, people or material resources used to produce an output. *Outputs* are the product of the calculation of the inputs and describe the level of effectiveness of each performance measure. The outputs are the metrics that are benchmarked with other utilities. *Outcomes* are the desired result of the performance measure that the Water Authority would like to achieve in connection with its long-range goals and with its shorter-term objectives. The logic model is used to show where the organization wants to be and how it can get there.

Simply stated, the performance measures identify gaps in service delivery or performance. They are used to help monitor the Water Authority's performance and to develop performance targets. The Water Authority sets performance targets that are aligned with the desired outcomes to determine how effective or efficient the utility is in achieving the desired outcome. The Water Authority uses the desired outcomes to create an ongoing discussion with its stakeholders and show why decisions are made in prioritizing and allocating financial resources.

The Five-Year Goals and One-Year Objectives are incorporated into the logic model. The figure below shows the alignment between the goals, objectives and performance measures in the logic model. With the performance measures being used to identify gaps, the One-Year Objectives, which are policy directives from the Water Authority Board, are used to close performance or service delivery gaps and improve performance levels. It should be noted that not all One-Year Objectives are tied to performance measures or have a measurable component. Some Objectives are related to completing projects or improving or implementing programs.

Logic Model Alignment of Goals, Objectives and Performance Measures



FY20 GOALS AND ONE-YEAR OBJECTIVES

The Performance Plan may be viewed on the Authority's website at: www.abcwua.org/Finances.aspx

Below is a summary of the Goals and One-Year Objectives for FY20, as approved by the Water Authority Board.

Goal 1: Water Supply and Operations

Provide a reliable, safe, affordable, and sustainable water supply by transitioning to renewable supplies and minimizing long term environmental impacts on the community and natural resources while ensuring the ability of the community to grow in a responsible manner.

- Complete Ground Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 60% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.
- Complete Surface Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 60% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.
- Submit annual distribution and treatment data to the Partnership for Safe Water program for inclusion in the program's annual report of aggregated system water quality data; continue work on items identified from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20
- To improve energy efficiency and reduce operation and maintenance costs, continue the Automated Meter Infrastructure Pressure Monitoring project and assess opportunities for operational efficiency within pressure zone 4ER and the Paseo Del Norte/Eagle Ranch interconnection by the end of the 4th Quarter of FY20.
- To ensure the accessibility of valves and reduce interrupted service, create a systemic approach to preventative and corrective valve maintenance by the end of the 4th Quarter of FY20.
- To improve the validated water audit inputs for apparent water loss, conduct a statistically significant number of small meter tests to support the water audit and strategic water loss plan by the end of the 4th Quarter of FY20.
- Implement water loss control strategies by targeting real and apparent water losses by conducting an apparent loss forensic analysis and evaluating leak detection survey reports; by the end of the 2nd Quarter of FY20, identify areas of improvement and provide recommendations for reducing water loss.
- Continue distribution water loss program by locating water leaks from surveying 650 miles of small diameter water lines through conventional leak detection methods and 2,200 miles of small diameter water lines through acoustic leak detection by the end of the 4th Quarter of FY20; track, evaluate, and report on pilot-scale Echologics acoustic leak detection system on a quarterly basis in FY20.
- Maintain water use at or below 127 gallons per capita per day thru the end of the 4th Quarter of FY20.
- Introduce rebates for organic mulch and flow and moisture sensors by the end of the 2nd Quarter of FY20.
- Develop a program to assist low-income customers with water efficiency efforts by the end of the 2nd Quarter of FY20.
- Utilizing the NM Bureau of Geology and Minerals study, select the next Aquifer Storage and Recovery project and begin permitting studies by the 4th Quarter of FY20.
- Create a new puppet show and coloring book for use in the elementary school education program by the end of the 3rd Quarter of FY20.
- Track and report conservation education outreach to service area customers and meet the following targets: 1) 100 Irrigation Audits; 2) 45 Meetings with Landscapers; 3) 30 Meetings with Property Managers; and 4) 2

FY20 GOALS AND ONE-YEAR OBJECTIVES

Water Conservation Open House Meetings by the end of the 4th Quarter of FY20.

- To better educate children on the importance of water and resource planning, collaborate with ¡Explora! To design interactive water exhibits for the new STEM center which is planned to open in FY21.
- Continue work with the Water Protection Advisory Board through administrative, policy, and technical support through the end of the 4th Quarter of FY20.
- Complete a capture zone analysis for Water Authority wells to identify the area most in need of protection surrounding well heads by the end of the 4th Quarter of FY20.

Goal 2: Wastewater Collection and Operations

Provide reliable, safe and affordable wastewater collection, treatment and reuse systems to protect the health of the Middle Rio Grande Valley by safeguarding the regional watershed, minimizing environmental impacts, and returning quality water to the Rio Grande for downstream users.

- Limit overall permit excursions to no more than 5 operating discharge permit violations through the end of the 4th Quarter of FY20.
- Beneficially reuse biosolids by diverting 30% to compost thru the end of the 4th Quarter of FY20.
- Complete Waste Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 45% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.
- Continue work on the Partnership for Clean Water program for the water reclamation treatment to optimize system operations and performance; continue work on outstanding items from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20.
- Televise and assess the condition of approximately five percent of the small diameter sanitary sewer system by the end of the 4th Quarter of FY20.
- Complete the Capacity Management Operations Maintenance (CMOM) Program Self-Assessment by the end of the 2nd Quarter of FY20.
- Develop and implement a process to capture new construction for inclusion in Maximo and ITpipes Repository after GIS unique identifiers are established; complete process by end of 4th Quarter FY20.
- Monitor compliance with the Water Authority's Cross Connection Prevention and Control Ordinance. Obtain a compliance rate goal of 75%.
- Monitor compliance with the Water Authority's Sewer Use and Wastewater Control Ordinance by continuing to inspect, monitor, and take enforcement action for permitted industrial users, septage waste haulers, food service establishments, and dental offices. Compliance rate goal is 87% for each category.
- Implement the Fats, Oils, and Grease (FOG) Policy to reduce impacts on the sewer system by inspecting each Food Service Establishment (FSE) once every three years, working with the Collections section with Sanitary Sewer Overflow (SSOs) investigations, and convene FOG Task Force of other governmental entities to coordinate efforts to reduce FOG discharges. Track and report the number of SSOs due to FOG compared with previous years.

FY20 GOALS AND ONE-YEAR OBJECTIVES

Goal 3: Customer Services

Provide quality customer services by communicating effectively, billing accurately, and delivering water and wastewater services efficiently based on understanding the needs and perceptions of our customers and the community at large.

- Improve customer satisfaction and operational efficiency in achieving the four call-center targets through the 4th Quarter of FY20: 1) Average Wait Time of less than 1:00 minute; 2) Average Contact Time of less than 4:00 minutes; 3) Abandoned Call Ratio of less than 3; and 4) First Call Resolution of greater than 95%.
- Improve customer satisfaction by achieving a billing accuracy ratio of less than 8 through the 4th Quarter of FY20.
- Continue implementation of the Automated Meter Infrastructure (AMI) project by modernizing aging meter infrastructure with smart meters to increase revenue, support conservation efforts, and provide better customer service by the end of the 4th Quarter of FY20.
- Provide communications support for high-priority Water Authority programs and initiatives and conduct public outreach regarding Water Authority services, policies and projects through the end of the 4th Quarter of FY20.
- Complete Customer Conversation meetings to engage customers and obtain input from customers on the Water Authority's activities through the end of the 4th Quarter of FY20.
- Conduct a customer opinion survey in order to assess the Water Authority's performance from the customer's viewpoint from previous surveys by the end of the 4th Quarter of FY20.

FY20 GOALS AND ONE-YEAR OBJECTIVES

Goal 4: Business Planning and Management

Maintain a well-planned, managed, coordinated, and financially stable utility by continuously evaluating and improving the means, methods, and models used to deliver services.

- Expend \$58 million in water and wastewater capital rehabilitation and replacement programs to replace aging, high risk assets that are past their useful life by the end of the 4th Quarter of FY20. \$1 million shall be dedicated and used for identifying steel water pipes in critical or poor condition by the end of the 4th Quarter of FY20.
- Continue implementation of the Reclamation Rehabilitation Asset Management Plan by planning, designing and constructing reclamation facility improvements through the end of the 4th Quarter of FY20.
- Implement one planned Interceptor Rehabilitation project in FY20, and complete three interceptor design packages by the 4th Quarter of FY20; implement one planned Small Diameter Sanitary Sewer Rehabilitation project in FY20; complete design of Grit Collection Station near 12th Street/Interstate 40 by end of the 2nd Quarter of FY20.
- Complete an update to the 2011 Comprehensive/Utility Wide Asset Management Plan to provide a detailed gap analysis of the Water Authority's asset registry by the end of the 4th Quarter of FY20.
- In order to provide a central location for processes and procedures, finalize a complete draft of the Utility Development Guide by the end of the 2nd Quarter of FY20; update System Expansion Ordinance to align to the Guide; review fee structure for Utility Development deliverables.
- Continue construction of the Los Padillas water system through the end of the 4th Quarter of FY20
- Begin implementing Phase 1 of the Water Authority's Final Security Plan based on vulnerability assessments that were performed to reduce physical security and cyber security risks with a goal of completing hardware countermeasures selected for

adoption by the end of the 4th Quarter of FY20. Update the Water Authority's Emergency Response Plan by the end of the 4th Quarter of FY20. Complete the AWWA risk and resilience certificate program to demonstrate compliance with America's Water Infrastructure Act of 2018.

- Update the Comprehensive Information Technology Security Plan and related policies that are aligned with the standards, guidelines, and best practices of the National Institute of Standards and Technology Cybersecurity Framework to protect the utility's critical infrastructure from cyber-attacks by the end of the 2nd Quarter of FY20.
- Complete a needs assessment of the Supervisory Control and Data Acquisition (SCADA) system; implement recommendations of the assessment for the updated platform to align with the asset management program by the end of the 1st Quarter of FY20.
- Complete the Maximo upgrade to provide better service, better decision making, and stewardship of its resources by the end of the 4th Quarter of FY20; upgrade utility Enterprise Applications and expand usage of Splunk data analytics tool to implement functions for cyber security, water quality and telemetry/vehicle location solutions; and replace all 800 MHz radios with push to talk technology.
- Apply artificial intelligence and machine learning to assess current water quality management strategies using predictive early warning intelligence to see occurrences in real-time; develop and implement a pilot program that combines live data from water delivery operations with a hydraulic model to provide real-time water quality indicators by the end of the 4th Quarter of FY20.
- Maintain the Compliance Division Regulatory Compliance Permit Matrix and the Regulatory Matrix Status Report to respectively maintain schedules for permit submittals and monitor and report emerging Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) regulations, New Mexico Water Quality Control Commission and Environmental Improvement Board regulations, and local laws ordinances, etc. to identify and assess potential impacts on

FY20 GOALS AND ONE-YEAR OBJECTIVES

the Water Authority. Provide quarterly reports through the end of the 4th Quarter of FY20.

- Collect, monitor, and report weekly, monthly and quarterly key laboratory performance metrics to include: WQL results approved and reported for each laboratory section (chemistry, microbiology, metals, and external labs), laboratory productivity (results reported per productive hour), and the percentage of results reported late (turnaround time (TAT)). Compare to industry benchmarks.
- Continue to develop LabVantage application system throughout FY20 to increase the automation of data entry to reduce data entry errors and reduce the amount of paper used at the laboratory. Develop dashboards to help analysts and management manage samples and reagents. Expand the collection of electronic data to field analytics, balances, probes, and spectrophotometry instruments stored in the Database of Compliance.
- Continue to develop the Environmental Monitoring Program to improve the reliability of results from field instrumentation and sample collection techniques. Develop a program plan based on designated International Organization for Standardization (ISO) standard to address accreditation requirements to include standard operating procedures, document control and records

management plans, and a process for demonstration of staff capability. Develop a program-wide audit plan to monitor compliance with standard operating procedures in the field and the laboratories. Implement program plan by the end of the 4th Quarter of FY20.

- Transition to ISO and the International Electrotechnical Commission (IEC) ISO/IEC 17025:2017. Prepare for the American Association for Laboratory Accreditation (A2LA) biennial on-site assessment of the Water Quality Laboratory including completing required internal audits and annual review and revision of Standard Operating Procedures.
- Track external subcontract laboratory costs that are processed by the Water Quality Laboratory. Improve how the laboratory manages sample submissions to external laboratories and make available the cost of external subcontract laboratory analysis for reporting.
- Monitor for Pharmaceuticals and Personal Care Products (PPCPs) in the source water, drinking water and wastewater. Report the findings of voluntary monitoring by the end of the 2nd Quarter of FY20. Compare the results to historical monitoring performed in 2009-2010.

Goal 5: Organizational Development

Sustain a well-informed, trained, motivated, safe, organized, and competitive work force to effectively meet the expectations of the customers, community, and Board in accordance with adopted policies and mandates.

- Continue to emphasize Employee Recognition through several initiatives including supervisor training, employee incentive awards, on-the-spot awards, and years of service awards.
- Conduct Employee Engagement and Satisfaction Survey by the end of the 2nd Quarter of FY20; assess and communicate the survey results to employees by the end of the 4th Quarter of FY20.
- Consistent with the EPA's Utility of the Future (UOTF), develop a program that focuses on employee and leadership development to achieve sustainability, including actions such

as hiring and retaining motivated, participative employees, creating a collaborative organization and positive workplace environment, and providing a positive environmental and community impact; the program may examine potential sources of purpose and meaning for employees and encourage projects and communication efforts that enhance a sense of meaning and purpose.

- Complete two employee wellness challenges per fiscal quarter focusing on nutrition, physical activity and weight loss, and disease

FY20 GOALS AND ONE-YEAR OBJECTIVES

- and injury prevention to employees by the end of the 4th Quarter of FY20.
- Maintain an average utility-wide vacancy rate of no greater than 5% through the end of FY20.
- Reduce injury hours to 2,625 hours or less to improve productivity and reliability of services provided by employees by the end of the 4th Quarter of FY20.



*APPROVED BUDGET
AND
FINANCIAL CONSOLIDATIONS*

*Approved
Operating Budget
FY20*

ABCWUA FUNDS

The Water Authority accounts for all activities to provide water and wastewater services for the residents of both the City of Albuquerque and Bernalillo County. These activities include, but are not limited to, administration, operation, maintenance, financing and related debt service, billing and collection. This proprietary type Water Authority provides services which are intended to be financed primarily through user charges or activities where periodic determination of net income is appropriate.

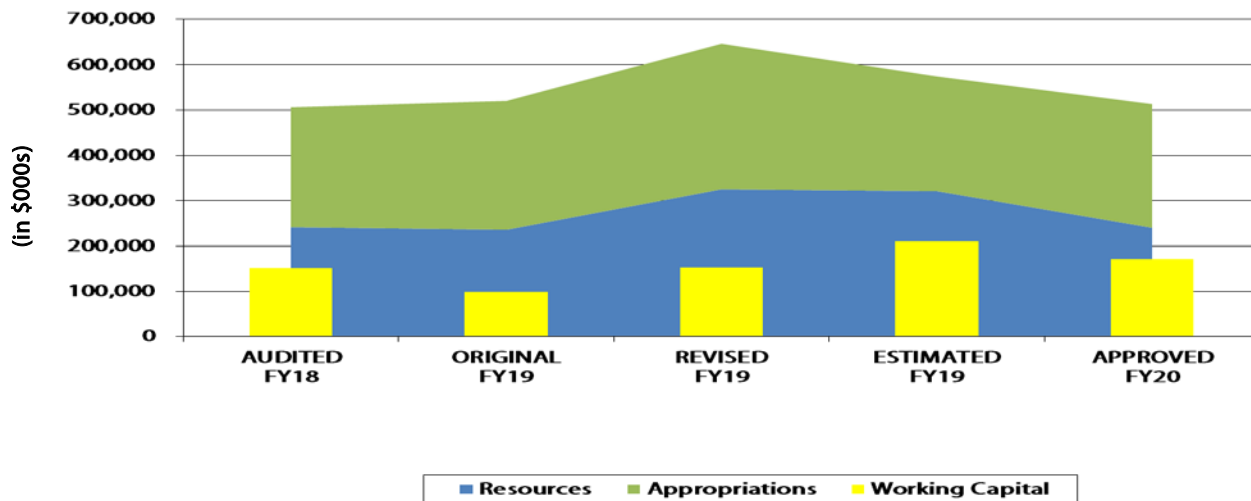
Fund 21 - General Fund - To account for the general operations of providing water and wastewater services in the Water Authority's service area.

Fund 27 – Water 2120 Projects/ Fund 28 – Capital Rehab Fund/ Fund 29 – Capital Growth Fund - To account for the operations of the Water Authority's Capital Improvement program.

Fund 31 - Debt Service Fund - To accumulate the monies to pay the debt service associated with water and wastewater services.

CONSOLIDATED RESOURCES, APPROPRIATIONS AND WORKING CAPITAL BALANCE

(\$000's)	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
RESOURCES:						
Proceed Revenues	670	-	87,363	85,255	-	(87,363)
Miscellaneous Revenues	17,186	15,017	17,763	18,722	14,242	(3,521)
Enterprise Revenues	223,968	220,326	220,326	217,524	220,326	-
Transfers from Other Funds	108,101	103,220	103,856	103,856	115,029	11,173
Interfund Adjustments	(108,101)	(103,220)	(103,856)	(103,856)	(115,029)	(11,173)
Total Current Resources	241,823	235,344	325,452	321,501	234,568	(90,884)
Add from Working Capital	-	-	-	-	4,800	4,800
Beginning Working Capital Balance	174,943	158,099	158,099	158,099	219,689	61,590
TOTAL RESOURCES	416,765	393,443	483,551	479,600	459,057	(24,494)
APPROPRIATIONS:						
Enterprise Operations	110,381	115,789	116,789	114,189	120,318	3,529
Debt Service	70,189	80,730	81,366	80,861	84,496	3,130
CIP Water 2120, Basic Rehab & Growth	83,600	88,368	123,139	57,267	68,341	(54,798)
Transfers to Other Funds:	108,101	103,220	103,856	103,856	115,029	11,173
Interfund Adjustments	(108,101)	(103,220)	(103,856)	(103,856)	(115,029)	(11,173)
TOTAL APPROPRIATIONS	264,170	284,887	321,294	252,317	273,155	(48,139)
Adj to Working Capital Balance	5,504	3	-	(7,594)	(4,800)	(4,800)
ENDING WORKING CAPITAL BALANCE	158,099	108,559	162,257	219,689	181,102	18,845
Rate Reserve	(7,000)	(9,000)	(9,000)	(9,000)	(9,000)	-
ENDING WORKING CAPITAL BALANCE (NET OF THE RATE RESERVE)	151,099	99,559	153,257	210,689	172,102	18,845

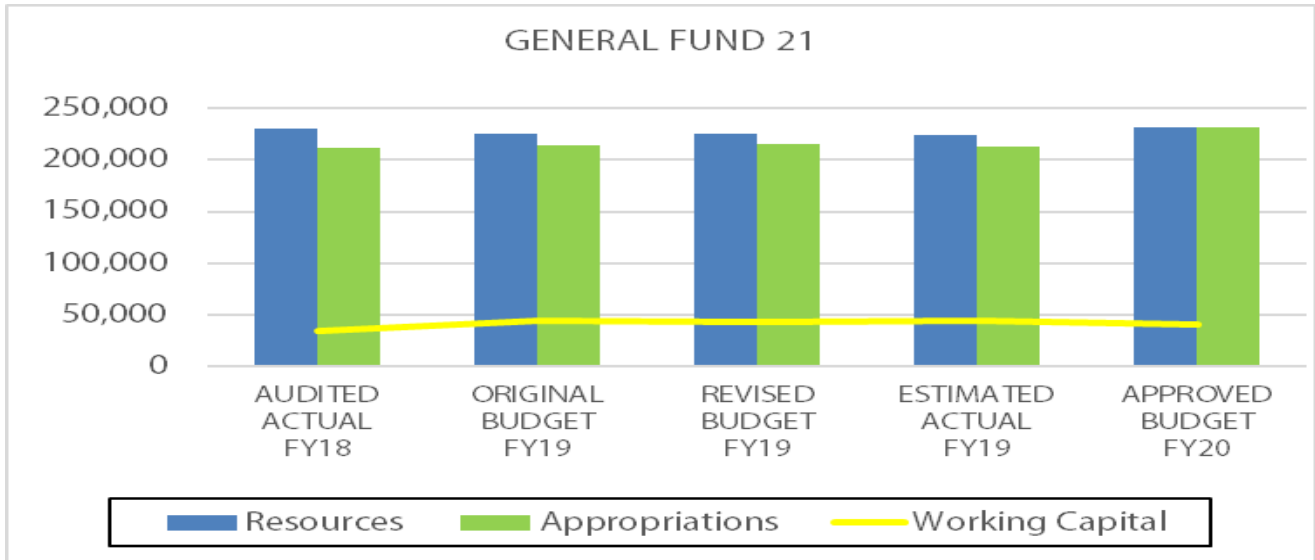


COMBINED FY20 FUNDS BUDGET

	FUND FUND 21	SERVICE FUND 31	FUNDS 27/28/29	FY20 TOTALS
RESOURCES				
Interest	1,000			1,000
Miscellaneous	3,109			3,109
Water	123,355			123,355
Water Resources Management	4,500			4,500
Wastewater	92,471			92,471
Solid Waste Admin Fee	1,637			1,637
DMD Admin Fee	496			496
Utility Expansion Charges		8,000		8,000
Transfers	-	79,411	35,618	115,029
TOTAL CURRENT RESOURCES	<u>226,568</u>	<u>87,411</u>	<u>35,618</u>	<u>349,597</u>
Add from Working Capital	4,800	-	-	4,800
TOTAL RESOURCES	<u>231,368</u>	<u>87,411</u>	<u>35,618</u>	<u>354,397</u>
APPROPRIATIONS				
Wages	40,601			40,601
Fringe Benefits	18,611			18,611
Professional and Other Services	19			19
Utilities	12,789			12,789
Supplies	11,895			11,895
Travel, Training, and Dues	618			618
Repairs and Maintenance	14,600			14,600
Vehicle Maintenance	2,861			2,861
WC, Insurance, Tort, and Other Liab	3,506			3,506
NM Water Conservation Fee	656			656
Interest	159			159
Principal	1,243			1,243
Admin Svcs/OPEB	683			683
Contractual Services	12,077		68,341	80,418
Capital Outlay	-			-
Transfer to Capital Fund	31,618	4,000		35,618
Transfer to Debt Service	79,411			79,411
Transfer to General Fund				-
Debt Service Payments		84,496		84,496
TOTAL APPROPRIATIONS	<u>231,347</u>	<u>88,496</u>	<u>68,341</u>	<u>388,184</u>
Revenue Over (Under) Expenditures	22	(1,085)	(32,723)	(33,787)
Adjustment to Fund Balance	(4,800)	-	-	(4,800)
Beginning Fund Balance	44,634	49,939	116,116	210,689
Rate Reserve	9,000	-	-	9,000
ENDING FUND BALANCE (NET OF THE RATE RESERVE)	<u>39,855</u>	<u>48,854</u>	<u>83,393</u>	<u>172,102</u>

GENERAL FUND – 21 RESOURCES, APPROPRIATIONS AND WORKING CAPITAL BALANCE

The General Fund budget provides quality water and wastewater removal to its ratepayers. This fund handles all operating dollars for the Water Authority. Transfers to the debt service fund and capital funds are also maintained in this fund.



Resources

General Fund revenue budget for FY20 is \$231.3 million, including an addition of \$4.8 million from working capital. Of the total revenue, 95.2% is comprised of charges for water and wastewater services. FY20 revenue is estimated to be \$5.5 million above the FY19 revised budget. In FY19, the CIP Funded positions (Transfers from Other Funds) were re-allocated to the General Fund operating departments.

Approved issue papers submitted by divisions total \$2.9 million.

Working Capital

The Water Authority continues to strive to achieve a Fund Balance equal to 1/12th of the annual budgeted operating expenses. The Working Capital balance at June 30, 2020 is projected to be \$39.9 million, net of the Rate Reserve.

Appropriations

General Fund appropriation budget for FY20 is \$231.3 million. Operating expenses contain a net increase of \$15.7 million from the FY19 revised budget. This includes an increase of \$1.6 million in salaries and benefits, an increase of \$1.9 million in operating expenses and an increase of \$12.2 million for the Debt Service and Capital transfers. Personnel expenses include a 2% cost of living adjustment, as per labor agreements and a 12% increase in benefits primarily due to the Affordable Health Care Act.

GENERAL FUND – 21

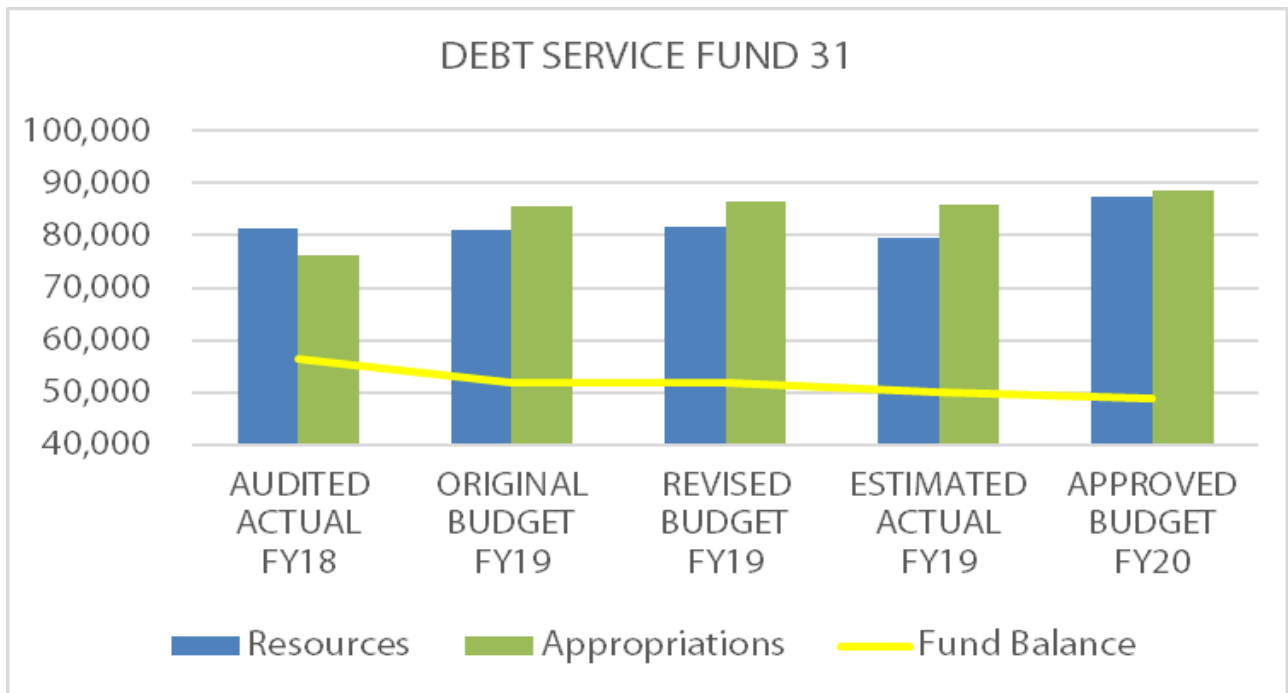
RESOURCES, APPROPRIATIONS AND WORKING CAPITAL BALANCE

(\$000's)	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
RESOURCES:						
Rate Revenues:						
Water Service	105,696	90,578	90,578	99,926	90,578	-
Water Facilities Rehab	37,326	32,402	32,402	36,616	32,402	-
Wastewater Service	42,622	64,869	64,869	42,442	64,869	-
Wastewater Facilities Rehab	33,456	27,602	27,602	34,095	27,602	-
Contr/Aid/Hookups	450	375	375	326	375	-
Water Resources Management	4,418	4,500	4,500	4,119	4,500	-
Total Rate Revenue	223,968	220,326	220,326	217,524	220,326	-
Other Revenues:						
Solid Waste Admin Fee	1,480	1,509	1,509	1,509	1,637	128
DMD Admin Fee	348	359	359	359	496	137
CIP Funded Positions	943	-	-	-	-	-
Interest on Investments	322	540	540	2,539	1,000	460
Miscellaneous Revenue	2,826	3,109	3,109	2,628	3,109	-
Total Other Revenue	5,919	5,517	5,517	7,035	6,242	725
Total Current Resources	229,887	225,843	225,843	224,559	226,568	725
Add from Working Capital	-	-	-	-	4,800	-
Beginning Working Capital Balance	13,667	41,204	41,204	41,204	53,634	12,429
TOTAL RESOURCES	243,553	267,047	267,047	265,763	285,002	17,955
APPROPRIATIONS:						
Programs:						
Administration	3,140	2,684	2,718	2,799	2,224	(494)
Risk	3,616	4,534	4,911	5,096	4,397	(514)
Legal	863	760	760	890	790	30
Human Resources	1,473	1,588	1,588	1,466	1,799	211
Finance	3,867	4,184	4,020	3,817	4,124	104
Customer Services	8,682	9,050	9,050	8,980	5,192	(3,858)
Information Technology	6,998	7,096	7,239	6,923	7,370	131
Wastewater Plant	10,978	11,426	11,351	11,474	11,786	435
San Juan-Chama Water Treatment Plant	3,479	3,971	4,142	4,040	4,285	143
Groundwater Operations	6,288	6,629	6,512	6,242	6,614	102
Wastewater Collection	6,824	6,701	6,701	7,272	7,077	376
Water Field Operations	18,154	19,595	19,651	17,444	23,824	4,173
Compliance	4,242	5,261	5,261	4,931	5,424	163
Planning & Engineering	2,960	3,899	3,899	3,751	4,008	109
Water Resources	3,631	3,861	3,936	3,851	4,675	739
Power & Chemicals	20,566	20,236	19,987	19,986	21,487	1,500
Taxes	262	656	656	421	656	-
Overhead	2,247	1,410	1,660	2,091	1,839	179
San Juan-Chama	2,109	2,247	2,747	2,716	2,747	-
Total Enterprise Appropriations	110,381	115,789	116,789	114,189	120,318	3,529
Transfers to Other Funds:						
Rehab Fund - 28	30,250	26,589	26,589	26,589	31,618	5,029
Debt Service Fund - 31	70,908	71,631	72,267	72,267	79,411	7,144
Total Transfers	101,158	98,220	98,856	98,856	111,029	12,173
TOTAL APPROPRIATIONS	211,539	214,009	215,645	213,045	231,347	15,702
Adjustment to Working Capital	9,190	-	-	917	(4,800)	(4,800)
ENDING WORKING CAPITAL BALANCE	41,204	53,038	51,402	53,634	48,855	(2,547)
Rate Reserve	(7,000)	(9,000)	(9,000)	(9,000)	(9,000)	-
ENDING WORKING CAPITAL BALANCE (NET OF THE RATE RESERVE)	34,204	44,038	42,402	44,634	39,855	(2,547)

DEBT SERVICE FUND - 31

RESOURCES, APPROPRIATIONS AND FUND BALANCE

The Debt Service Fund is used to accumulate monies for payment of principal and interest on revenue bonds secured by pledge of water and wastewater revenues. It is the Water Authority's policy to allocate the annual amount of Utility Expansion Charge (UEC) revenues as follows: \$6 million would remain in this fund and the remainder would be transferred to the capital funds to be used for cash financing of growth projects.



Resources

Debt Service resources approved for FY20 are \$87.4 million; an increase of \$5.6 million. The current resources are comprised of revenue from Utility Expansion Charges (UEC) and transfers from the General Fund. UEC revenue decreases \$1.5 million based on the current trend in residential development. The transfer from the General Fund increases \$7.1 million based on the Water Authority's debt service schedule.

Appropriations

Appropriations total \$88.5 million, of which \$84.5 million is principal and interest payments for outstanding debt and \$4.0 million is a transfer to the Growth Capital fund. Debt service payments increase in FY20 \$3.1 million, based on the Water Authority's debt service schedule, and the transfer to the capital fund decreases \$1.0 million.

Fund Balance

Fund Balance at June 30, 2020 is projected to be \$48.9 million.

DEBT SERVICE FUND - 31

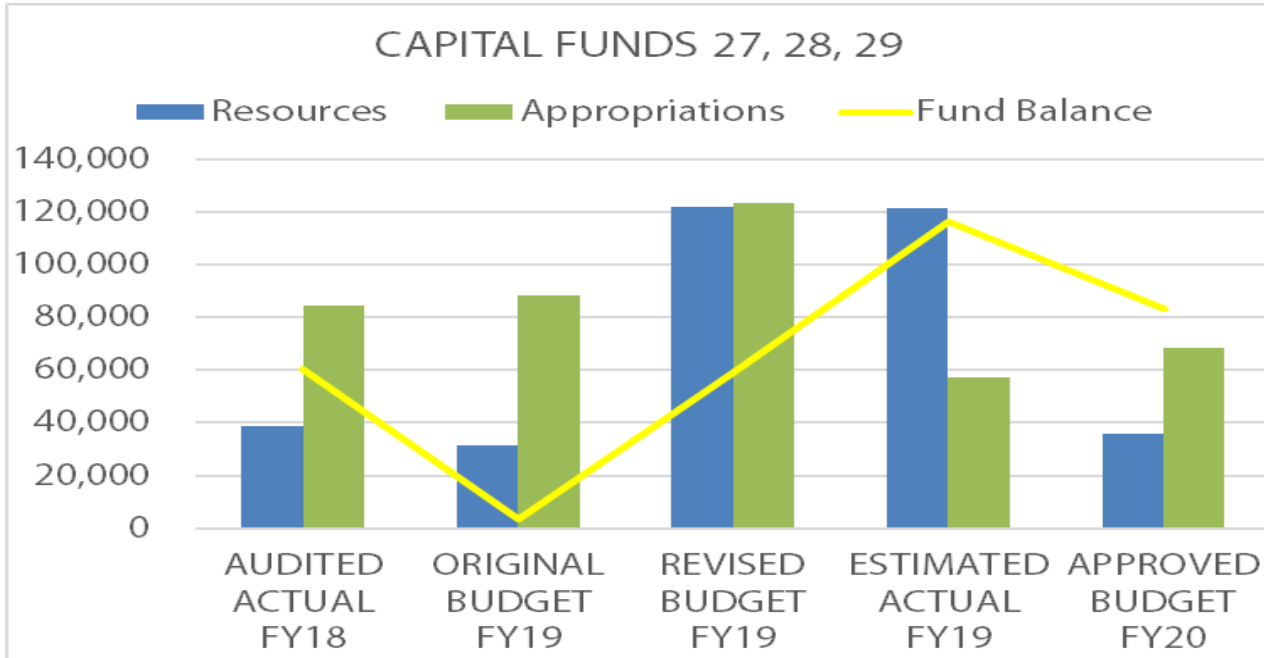
RESOURCES, APPROPRIATIONS AND FUND BALANCE

(\$000's)	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
RESOURCES:						
Miscellaneous Revenues:						
Miscellaneous Revenue	-	-	3	2	-	(3)
Expansion Charges (UEC)	<u>10,398</u>	<u>9,500</u>	<u>9,500</u>	<u>7,268</u>	<u>8,000</u>	<u>(1,500)</u>
Total Miscellaneous Revenues	10,398	9,500	9,503	7,270	8,000	(1,503)
Transfer from Other Funds:						
General Fund - 21	<u>70,908</u>	<u>71,631</u>	<u>72,267</u>	<u>72,267</u>	<u>79,411</u>	<u>7,144</u>
Total Transfers	70,908	71,631	72,267	72,267	79,411	7,144
Total Current Resources	81,306	81,131	81,770	79,537	87,411	5,641
Beginning Fund Balance	<u>52,819</u>	<u>56,420</u>	<u>56,420</u>	<u>56,420</u>	<u>49,939</u>	<u>(6,481)</u>
TOTAL RESOURCES	<u>134,125</u>	<u>137,551</u>	<u>138,190</u>	<u>135,957</u>	<u>137,350</u>	<u>(841)</u>
APPROPRIATIONS:						
Debt Service	70,189	80,730	81,366	80,861	84,496	3,130
Transfers to Other Funds						
Growth Fund - 29	<u>6,000</u>	<u>5,000</u>	<u>5,000</u>	<u>5,000</u>	<u>4,000</u>	<u>(1,000)</u>
Total Transfers	6,000	5,000	5,000	5,000	4,000	(1,000)
TOTAL APPROPRIATIONS	<u>76,189</u>	<u>85,730</u>	<u>86,366</u>	<u>85,861</u>	<u>88,496</u>	<u>2,130</u>
ADJUSTMENTS:						
Adjustment to Fund Balance	<u>(1,516)</u>	<u>3</u>	<u>-</u>	<u>(157)</u>	<u>-</u>	<u>-</u>
TOTAL ADJUSTMENTS	(1,516)	3	-	(157)	-	-
ENDING FUND BALANCE	<u>56,420</u>	<u>51,824</u>	<u>51,824</u>	<u>49,939</u>	<u>48,854</u>	<u>(2,970)</u>

CAPITAL FUNDS – 27, 28, 29

RESOURCES, APPROPRIATIONS AND FUND BALANCE

The Capital Funds are used to fund the operations of the Water Authority’s Capital Improvement Program based on projects identified in the Water Authority’s Decade Plan. The resources for these funds are the transfers from the General and the Debt Service Funds.



Resources

Total current resources approved for FY20 are \$35.6 million. These resources are comprised of transfers from the General Fund (\$31.6 million) and the Debt Service Fund (\$4.0 million). CIP resources increase \$4.0 million in FY20 from the FY19 Original Budget.

Appropriations

FY20 appropriations total \$68.3 million. CIP appropriations decrease \$20.0 million from the FY19 Original Budget, based on the Water Authority’s FY19-FY28 Decade Plan.

Fund Balance

The Fund Balance at June 30, 2020 is projected to be \$83.4 million.

CAPITAL FUNDS – 27, 28, 29

RESOURCES, APPROPRIATIONS AND FUND BALANCE

(\$000's)	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
RESOURCES:						
Proceeds:						
Loan Proceeds	670	-	2,724	616	-	(2,724)
Bond Proceeds	-	-	84,639	84,639	-	(84,639)
Total Proceed Revenue	<u>670</u>	<u>-</u>	<u>87,363</u>	<u>85,255</u>	<u>-</u>	<u>(87,363)</u>
Miscellaneous Revenues:						
State Grants	1,023	-	743	860	-	(743)
Lease of Water Rights	79	-	2,000	2,285	-	(2,000)
Other	711	-	-	1,273	-	-
Total Miscellaneous Revenues	<u>1,812</u>	<u>-</u>	<u>2,743</u>	<u>4,417</u>	<u>-</u>	<u>(2,743)</u>
Transfer from Other Funds:						
General Fund - 21	30,250	26,589	26,589	26,589	31,618	5,029
Debt Service Fund - 31	6,000	5,000	5,000	5,000	4,000	(1,000)
Total Transfers	<u>36,250</u>	<u>31,589</u>	<u>31,589</u>	<u>31,589</u>	<u>35,618</u>	<u>4,029</u>
Total Current Resources	<u>38,731</u>	<u>31,589</u>	<u>121,695</u>	<u>121,262</u>	<u>35,618</u>	<u>(86,077)</u>
Beginning Fund Balance	108,457	60,475	60,475	60,475	116,116	55,641
TOTAL RESOURCES	<u><u>147,188</u></u>	<u><u>92,064</u></u>	<u><u>182,170</u></u>	<u><u>181,737</u></u>	<u><u>151,734</u></u>	<u><u>(30,436)</u></u>
APPROPRIATIONS:						
CIP Water 2120	24	300	2,300	47	300	(2,000)
CIP Basic Rehab	76,089	83,068	108,000	47,964	64,041	(43,959)
CIP Growth	7,487	5,000	12,839	9,256	4,000	(8,839)
Transfers to Other Funds	943	-	-	-	-	-
TOTAL APPROPRIATIONS	<u><u>84,543</u></u>	<u><u>88,368</u></u>	<u><u>123,139</u></u>	<u><u>57,267</u></u>	<u><u>68,341</u></u>	<u><u>(54,798)</u></u>
ADJUSTMENTS:						
Adjustment to Fund Balance	(2,170)	-	-	(8,354)	-	-
ENDING FUND BALANCE	<u><u>60,475</u></u>	<u><u>3,696</u></u>	<u><u>59,032</u></u>	<u><u>116,116</u></u>	<u><u>83,393</u></u>	<u><u>24,361</u></u>

FINANCIAL PLAN

The following table is the financial plan for Fund 21 (General Fund). The plan displays financial projections from FY19 thru FY28. This plan considers the Water Authority's Capital needs, Debt Service needs, revenue sources and expenses. The Financial Plan helps the Water Authority plan for future potential expense levels in both operating and capital and compare them to the estimated revenue resources for each projected fiscal year. The plan shows the effects of the budget on the Water Authority's future Working Capital and provides a tool to project future budget needs for the Utility.

FINANCIAL PLAN

Operating Fund

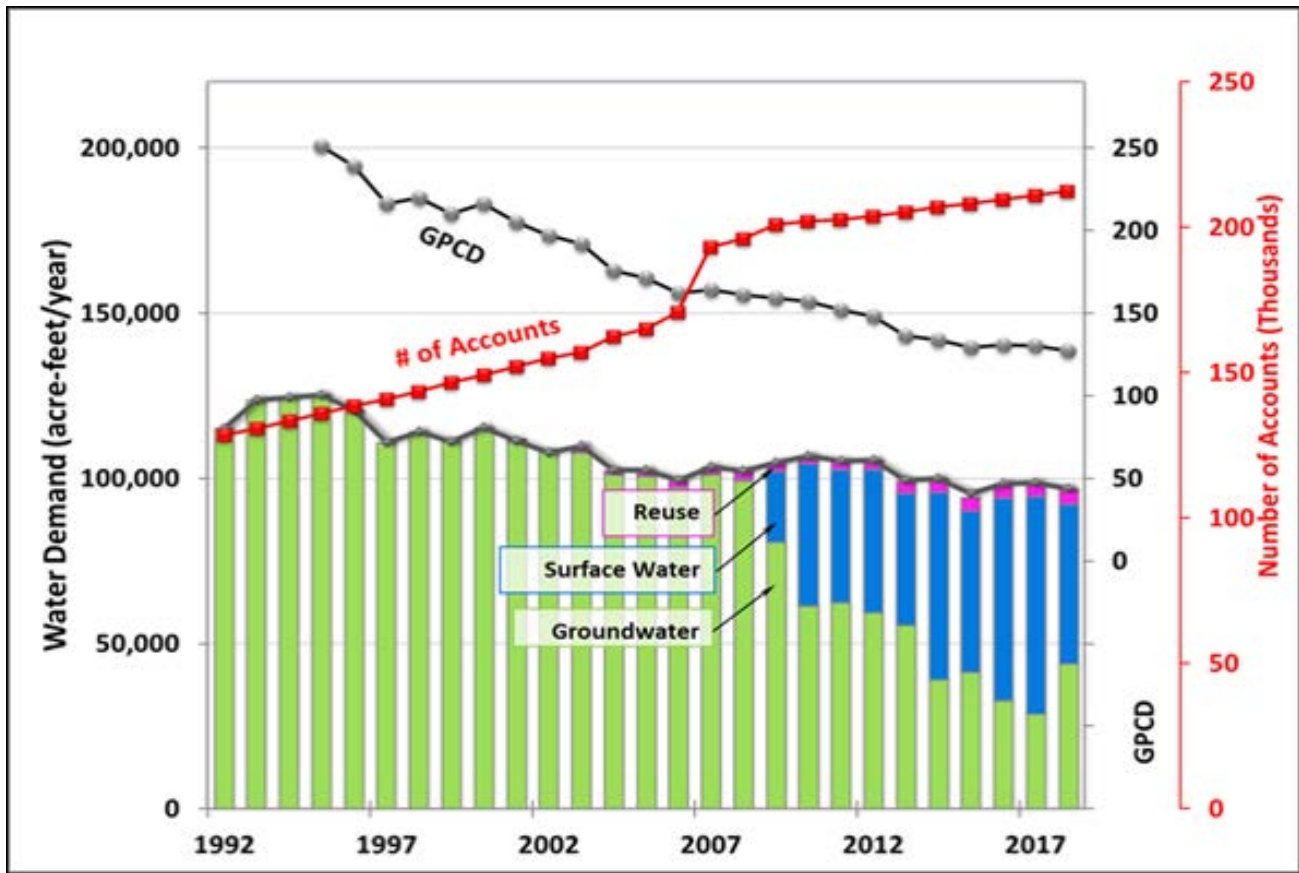
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Capital Funds										
Needs: Basic (Min 50% cash Tr	37000	37000	37000	37000	37000	37000	37000	37000	37000	37000
Increase for Rehab/Asset Mgt	12000	15000	18000	21000	24000	27000	30000	30000	30000	30000
Water Reclamation	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
Advanced Rehab	15000		20000		5000					
Steel Line	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
AMI	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
CC&B	1500	0	0							
Resources:										
Beginning Bal.	45688	16406	44124	14842	39560	10278	35997	7715	33434	5153
Trf. from Operating	27618	31618	33618	36618	39618	43619	46618	46619	46619	46619
Trf. from Debt Service	5500	4000	4000	4000	4000	4000	4000	4000	4000	4000
Bond Proceeds	15000	56000		54000		54000		54000		
Bond Proceeds Yucca/Central										
Adjustments										
First Year is 6mos. (y/n)	n	n	n	n	n	n	n	n	n	n
Subtotal	93806	108024	81742	109460	83178	111897	86615	112334	84053	55772
Interest on Above	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Total	94906	109124	82842	110560	84278	112997	87715	113434	85153	56872
Balance June 30	16406	44124	14842	39560	10278	35997	7715	33434	5153	-23128
Debt Service Fund										
Future Bond Interest=										
Resources:										
Interest Income	100	100	100	100	100	100	100	100	100	100
UECs	9500	8000	8000	8000	8000	8000	8000	8000	8000	8000
Transfer from 621	73781	79411	78967	85656	79247	80448	79386	79356	65437	55131
Adjustments/Misc										
Bg. Fund Balance	7188	4188	3188	3188	3188	3188	3188	3188	3188	3188
Total	90569	91699	90255	96944	90535	91736	90674	90644	76725	66419
Expenditures:										
Agent Fees	15	15	15	15	15	15	15	15	15	15
Trf to Capital	5000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Debt Service	81366	84496	83052	82941	76532	72033	70971	65441	51522	41216
Advanced Rehab										
FY/26 Bond Proceeds								5500	5500	5500
FY/24 Bond Proceeds						5700	5700	5700	5700	5700
FY/20 Bond Proceeds										
FY/22 Bond Proceeds				6800	6800	6800	6800	6800	6800	6800
Total	86381	88511	87067	93756	87347	88548	87486	87456	73537	63231
Fund Balance	4188	3188	3188	3188	3188	3188	3188	3188	3188	3188
Operating Fund Resources										
Rate Revenue	220326	220326	221428	221428	231392	231392	242961	244176	245397	246624
adj due to re-estimate										
Nonrate Revenue	5517	6242	5832	5832	5832	5832	6000	6000	6000	6000
Rate Stabilization Fund Franchise Fee										
Rate reserve										
Bg. Res over Comm	41203	52242	52506	50226	36163	33039	22538	19626	15705	24631
Total	267046	278810	279766	277486	273387	270263	271500	269802	267102	277255
Rate Stabilization Fund Expenditures										
Labor	57488	58638	59811	61007	62227	63471	64741	66036	67356	68703
Operations Exp	55617	56451	59844	60742	61957	62886	63829	64787	65758	66745
Savings										
Salary Savings1%		2886								
Issue Paper Incentive										
	300	300	300	300	300	300	300	300	300	300
Transf. to DS	73781	79411	78967	85656	79247	80448	79386	79356	65437	55131
Transf. to Cap.	27618	31618	33618	36618	39618	43619	46618	46619	46619	46619
Total	216804	231304	234540	246322	245348	252724	256874	259097	247471	239498
Rate Reserve	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000
Resources over Comm.	41242	38506	36226	22163	19039	8538	5626	1705	10631	28757
Res over Comm with Rate Res	52242	52506	50226	36163	33039	22538	19626	15705	24631	42757
Rate Increases	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	4.50%	0.00%	0.00%	0.00%
Accum. Inc. from 2004	26.0%	26.0%	26.0%	26.0%	30.0%	30.0%	34.5%	34.5%	34.5%	34.5%
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028



*REVENUE ANALYSIS
AND
ECONOMIC OUTLOOK*

*Approved
Operating Budget
FY20*

WATER USAGE GRAPH



RATE STRUCTURE AND MAJOR REVENUE SOURCES

The Water Authority's Rate Structure

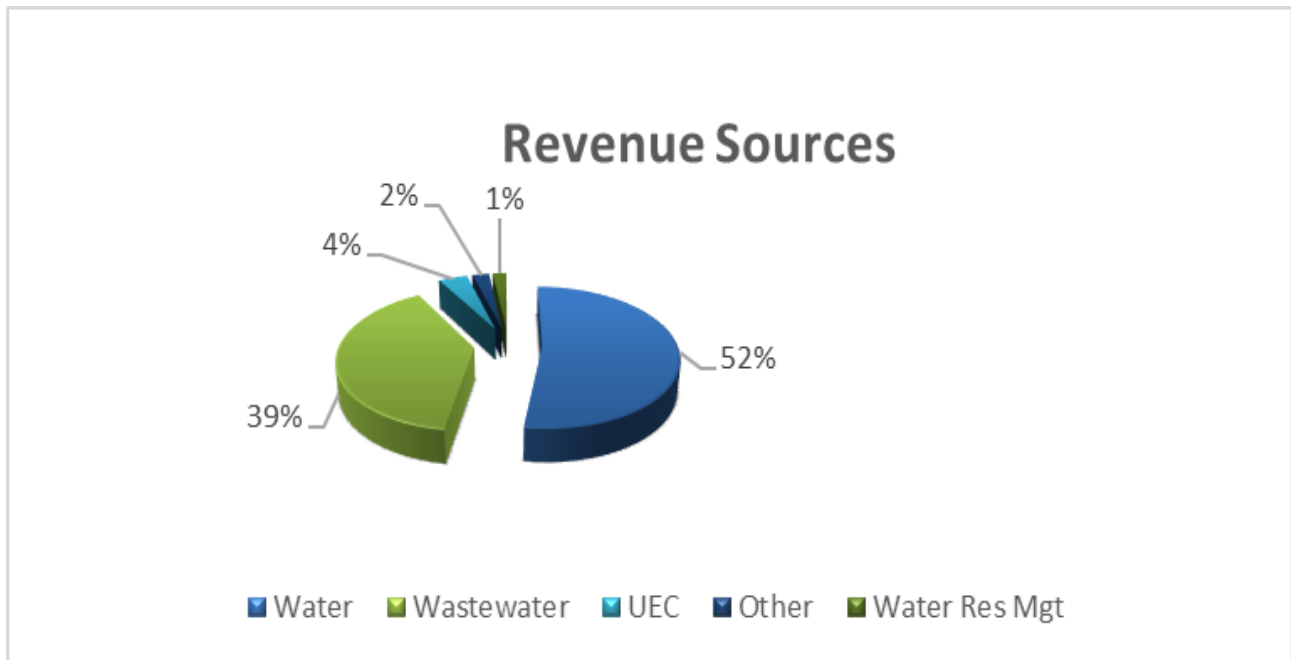
The Water Authority's rate structure is based upon Cost of Service Principles. It is evaluated every two years to ensure that there is equity amongst the different classes of customers and within the class of customers. During the summer months, the rate structure has a seasonal block rate structure to promote conservation. The base line is based upon the customer's winter usage. The Water Authority rate structure also has additional fees for those highest water users in the summer.

Major Revenue Sources

Water Sales (\$123.4 million, 52% of total revenue). The Water System provides water services to approximately 676,298 residents comprising approximately 95% of the residents of Bernalillo County. About one-third of unincorporated County residents are customers of the Water System. Service is provided to approximately 211,899 accounts, including 183,018 residential and 28,881 multi-family, commercial, institutional and industrial accounts. Approximately 50% of the water sales are for residential uses.

Wastewater (\$92.5 million, 39% of total revenue). Wastewater services are provided to virtually all homes, schools, and businesses within the Albuquerque city limits, as well as the Village of Tijeras, Kirtland Air Force Base, Sandia Heights, and other residential areas in Bernalillo County. In all, the Water Authority provides service to about 600,000 people, with 175,201 residential customer accounts, 16,501 multi-family and commercial accounts, 1,001 institutional accounts and 1,219 industrial and other customer accounts.

Utility Expansion Charges (\$8.0 million, 4% of total revenue). A Utility Expansion Charge is paid at the time of a meter sale or an application for service for all properties connecting to the water and/or wastewater system.



REVENUE

FY18 AUDITED ACTUAL REVENUES AND FY19 REVENUE PROJECTIONS

The Water Authority's revenue projections are summarized in the three tables included in this section. The first table, General Fund 21, presents the audited actual results for FY18, budgeted revenues and estimated actuals for FY19, and budgeted revenue for FY20. The second table, Debt Service Fund 31, and third table, CIP Funds 27, 28, 29, provide for the same comparison as the other table.

REVISED FY19 REVENUE ESTIMATES

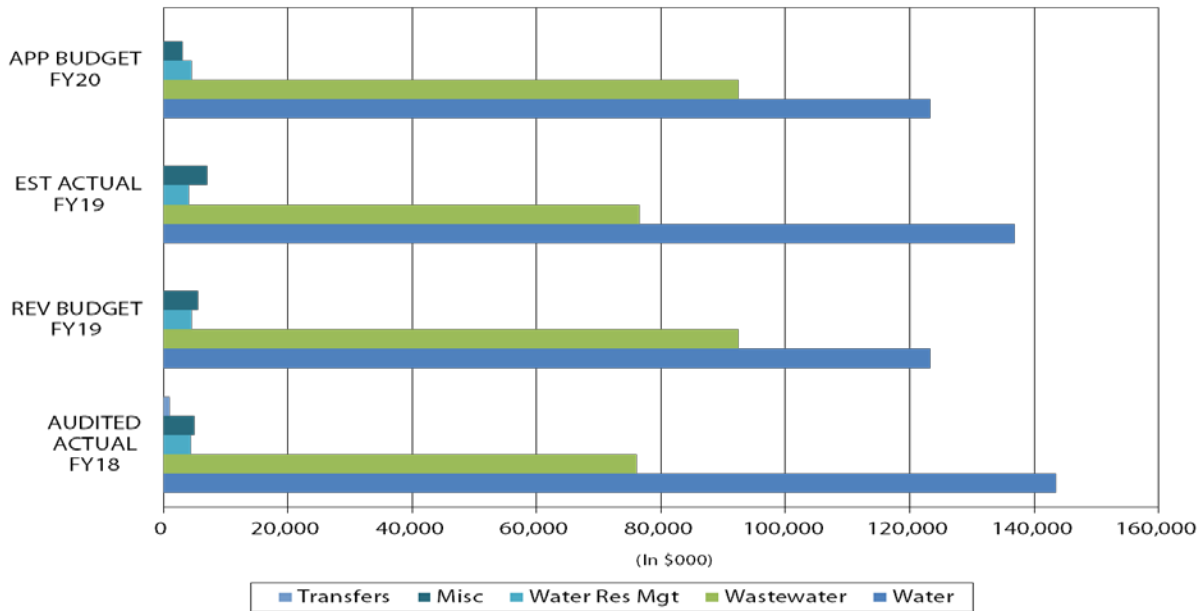
General Fund revenues for FY19 are anticipated to be \$224.6 million or \$5.3 million below FY18. This is a decrease of 2.0% and is attributed to a decrease in consumption due to both increased rainfall in FY19 and continued conservation efforts.

APPROVED BUDGET REVENUE ESTIMATES FOR FY20

Budgeted General Fund revenues for FY20 are \$231.3 million, representing an increase of \$5.5 million above the revised budgeted FY19 amount.

Revenue in the Debt Service Fund increases \$5.6 million in FY20. The decrease in UEC revenue of \$1.5 million is offset by the increase in the transfer from the General Fund of \$7.1 million.

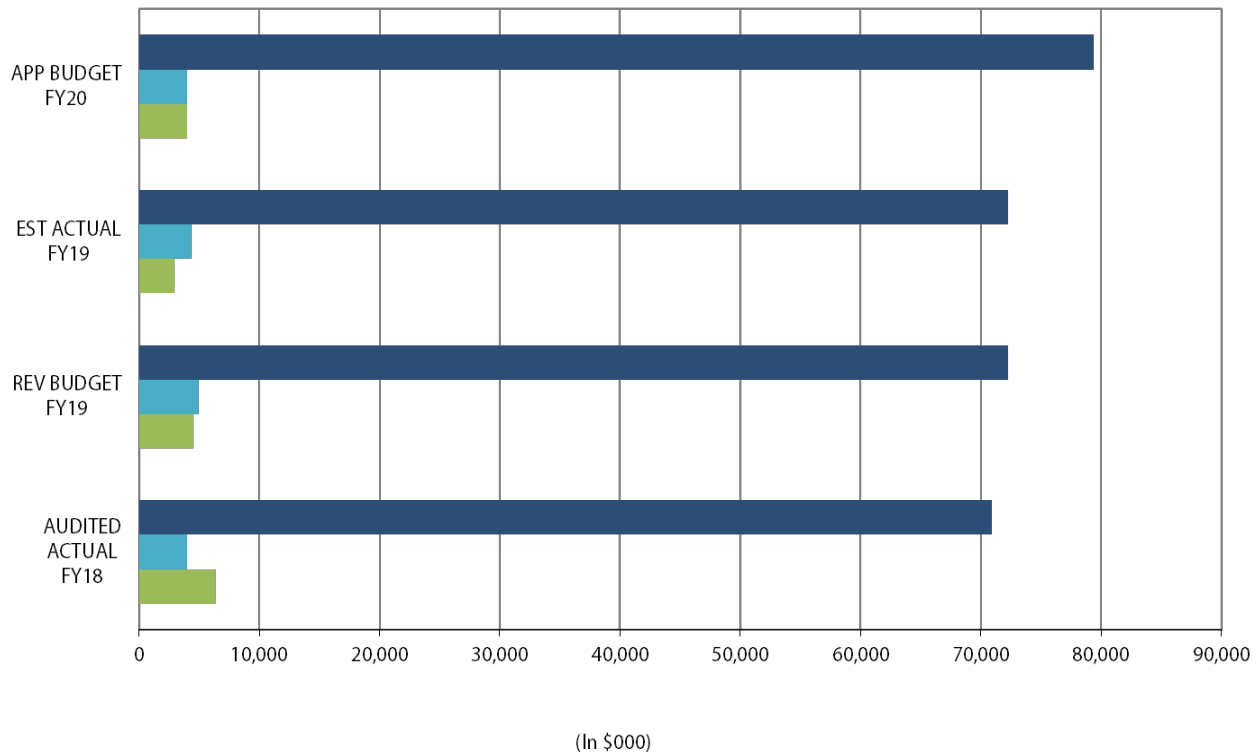
REVENUE – GENERAL FUND - 21



	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
	(\$000's)					
RESOURCES:						
Rate Revenue						
Water Service	105,696	90,578	90,578	99,926	90,578	-
Water Facilities Rehab	37,326	32,402	32,402	36,616	32,402	-
Wastewater Service	42,622	64,869	64,869	42,442	64,869	-
Wastewater Facilities Rehab	33,456	27,602	27,602	34,095	27,602	-
Contr/Aid/Hookups	450	375	375	326	375	-
Water Resources Management	4,418	4,500	4,500	4,119	4,500	-
Total Rate Revenue	223,968	220,326	220,326	217,524	220,326	-
Other Revenue						
Solid Waste Admin Fee	1,480	1,509	1,509	1,509	1,637	128
DMD Admin Fee	348	359	359	359	496	137
Interest on Investments	322	540	540	2,539	1,000	460
Miscellaneous Revenue	2,826	3,109	3,109	2,628	3,109	-
Total Other Revenue	4,976	5,517	5,517	7,035	6,242	725
Transfers from Other Funds						
CIP Funded Employees	943	-	-	-	-	-
Total Transfers	943	-	-	-	-	-
Total Current Resources	229,887	225,843	225,843	224,559	226,568	725
Add from Working Capital	-	-	-	-	4,800	4,800
Beginning Working Capital Balance	13,667	32,204	32,204	32,204	44,634	12,430
TOTAL RESOURCES	243,553	258,047	258,047	256,763	276,002	17,955

Note: The beginning working capital balance does not include GASB 45 or the rate reserve.

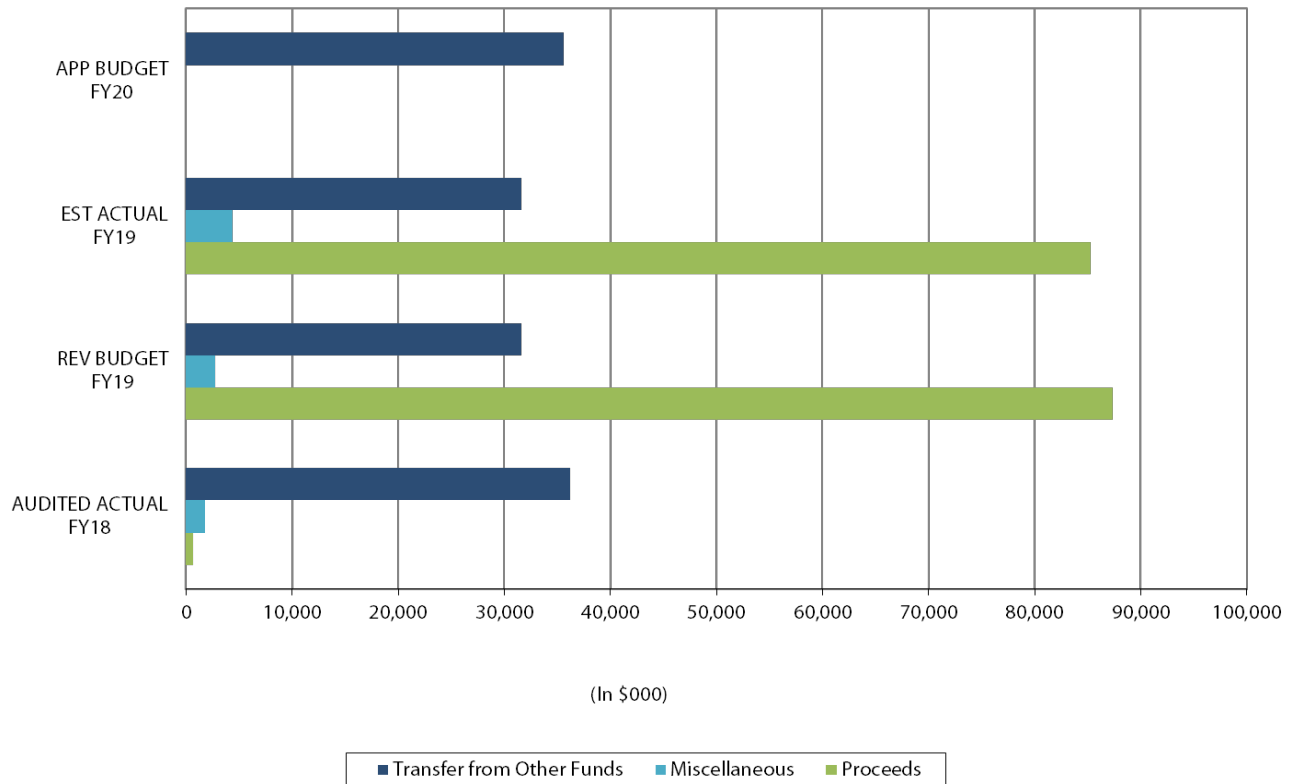
REVENUE – DEBT SERVICE FUND - 31



■ Transfer from Fund 21 ■ UEC-Wastewater ■ UEC-Water

(\$000's)	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
RESOURCES:						
Miscellaneous Revenues:						
Miscellaneous	-	-	3	2	-	(3)
Expansion Charges (UEC)	<u>10,398</u>	<u>9,500</u>	<u>9,500</u>	<u>7,268</u>	<u>8,000</u>	<u>(1,500)</u>
Total Miscellaneous Revenues	10,398	9,500	9,503	7,270	8,000	(1,503)
Transfer from Other Funds:						
General Fund - 21	<u>70,908</u>	<u>71,631</u>	<u>72,267</u>	<u>72,267</u>	<u>79,411</u>	<u>7,144</u>
Total Transfers	<u>70,908</u>	<u>71,631</u>	<u>72,267</u>	<u>72,267</u>	<u>79,411</u>	<u>7,144</u>
Total Current Resources	81,306	81,131	81,770	79,537	87,411	5,641
Beginning Fund Balance	<u>52,819</u>	<u>56,420</u>	<u>56,420</u>	<u>56,420</u>	<u>49,939</u>	<u>(6,481)</u>
TOTAL RESOURCES	<u>134,125</u>	<u>137,551</u>	<u>138,190</u>	<u>135,957</u>	<u>137,350</u>	<u>(841)</u>

REVENUE – CIP FUNDS – 27, 28, 29



	AUDITED ORIGINAL	REVISED ESTIMATED	APPROVED APPR 20/	APPR 20/
(\$'000's)	ACTUAL FY18	BUDGET FY19	BUDGET FY19	REV 19
				CHG

RESOURCES:

Other Revenues:

Bond/Loan Proceeds	670	-	87,363	85,255	-	(87,363)
Miscellaneous	1,812	-	2,743	4,417	-	(2,743)

Total Other Revenues 2,482 - 90,106 89,672 - (90,106)

Transfer from Other Funds:

General Fund - 21	30,250	26,589	26,589	26,589	31,618	5,029
Debt Service Fund - 31	6,000	5,000	5,000	5,000	4,000	(1,000)

Total Transfers 36,250 31,589 31,589 31,589 35,618 4,029

Total Current Resources	38,732	31,589	121,695	121,261	35,618	(86,077)
Beginning Fund Balance	108,457	60,475	60,475	60,475	116,116	55,641

TOTAL RESOURCES 147,188 92,064 182,170 181,737 151,734 (30,436)

ECONOMIC OUTLOOK

The following is based on the April 2019 forecasts from IHS Global Insight (IHS). Along with the baseline forecast, alternative forecasts are prepared with pessimistic and optimistic scenarios.

NATIONAL ECONOMY AND KEY POINTS FROM THE GLOBAL INSIGHT OUTLOOK

The national economy influences the Albuquerque and New Mexico economy in a variety of ways. Interest rates affect purchasing and construction. Federal government spending affects the local economy through spending and employment at the federal agencies, the national labs and military bases. Inflation affects prices of local purchases and wages and salaries of employees.

Baseline Scenario

This scenario reflects a probability of 60%. The key assumptions include:

- Gross Domestic Product (GDP) robust growth, at 3.0% in 2018 and 2.0% in 2019
- Consumer Spending, a key driver of growth, is up 2.6% in 2018 and 2.0% in 2019
- Business Fixed Investment growth peak at 7.0% in 2018 and slows to 3.4% in 2019
- Housing shows gradual improvement, with 1.3 million starts by late 2021
- Exports rise 4.8% in 2019 and 5.1% in 2020
- Fiscal Policy forecast incorporates the impacts of personal tax cuts extended, while entitlement spending will follow current program guidelines
- Monetary Policy Federal Reserve hikes the federal funds rate once in 2019, bringing the upper end of the target range to 2.75%
- Credit Conditions are gradually easing
- Productivity Growth averages 1.4% from 2019 through 2022
- Consumer Confidence drops in 1st quarter 2019 and peaks in 2nd quarter 2020
- Oil Prices have Brent crude oil averages at \$71/barrel in 2019 and \$66 in 2020
- Stock Markets have the S&P 500 recoups, gaining 18.5% in 2019
- Inflation Consumer Price Index (CPI) is 2.0% in 2019, and 2.2% in 2020 and 2021
- Foreign Growth Eurozone growth cools to 1.2%, while China's growth eases to 6.2%
- US Dollar real dollar holds steady until 2022 then slowly depreciates

Pessimistic Scenario

This scenario reflects a probability of 30%. The key assumptions include:

- Gross Domestic Product (GDP) moderate growth, at 3.0% in 2018; below baseline in 2019; 1.4% in 2020 with a recession running from the first quarter of 2020 to the third quarter of 2020
- Consumer Spending, a key driver of growth, rises 2.6% in 2018 and 1.4% in 2019 before declining 0.2% in 2020 amid broad-based loss of confidence
- Business Fixed Investment growth expands 7.0% in 2018, slows to 2.1% growth in 2019, then drops 5.0% in 2020 as businesses trim capex in the face of falling demand
- Housing starts drop below baseline levels in 2019 and never surpass 1.2 million units thereafter
- Exports increase 2.3% in 2018, then 4.8% in 2019, before slowing to 2.4% growth in 2020
- Fiscal Policy forecast incorporates the impacts of personal tax cuts extended, while entitlement spending will follow current program guidelines
- Monetary Policy Federal Reserve lowers rate from 3rd quarter 2019 to the 3rd quarter of 2020
- Credit Conditions have lending standards remaining high
- Productivity Growth averages 0.4% during 2019-22, 1.0% below baseline
- Consumer Confidence drops from 2nd quarter 2019; remains below baseline
- Oil Prices are modestly lower than the baseline for the forecast interval

ECONOMIC OUTLOOK

- Stock Markets have the S&P 500 increasing by 15.8% in 2019, before declining 9.0% in 2020
- Inflation Consumer Price Index (CPI) falls below baseline levels
- Foreign Growth slows during US recession period
- US Dollar depreciates quickly over recession period due to falling US rates

Optimistic Scenario

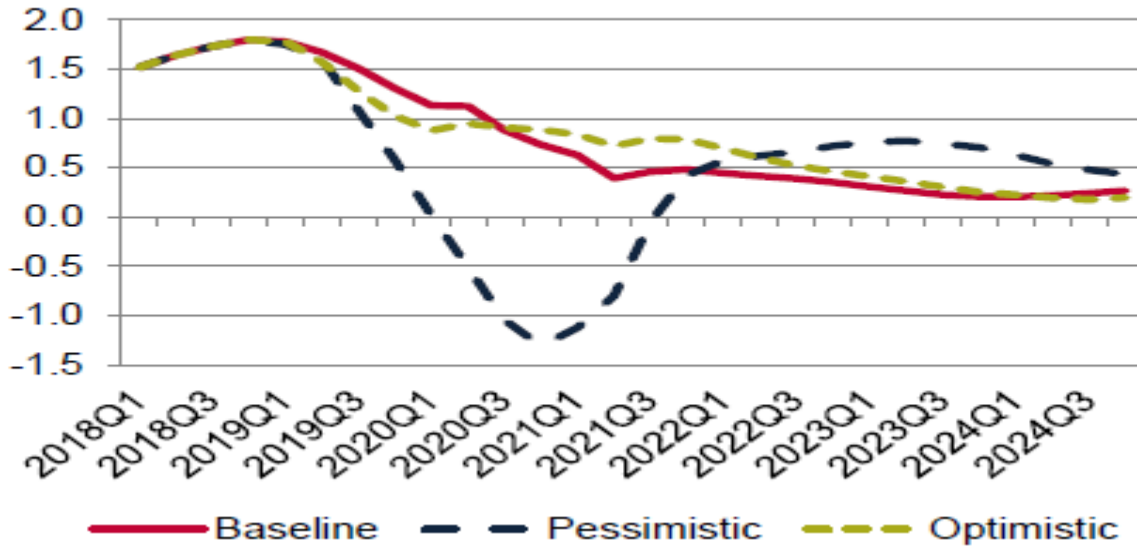
This scenario reflects a probability of 10%. The key assumptions include:

- Gross Domestic Product (GDP) growth hits 3.0% in 2018 and 2.5% in 2019 as productivity picks up; growth remains 1.0% higher than baseline over forecast interval
- Consumer Spending, a key driver of growth, is up 2.6% in 2018 and rises to 2.7% in 2019 due to faster real income growth
- Business Fixed Investment growth climbs 7.0% in 2018, before cooling to 3.9% growth in 2019
- Housing has young adults forming households in greater numbers due to strengthening economy, resulting in 1.45 million starts by mid-2026
- Exports increase 4.8% in 2019 and 2020
- Fiscal Policy forecast incorporates the impacts of personal tax cuts extended, while entitlement spending will follow current program guidelines
- Monetary Policy Federal Reserve rate settles at 3.25-3.50%, 0.50-0.75% higher than baseline
- Credit Conditions are rapidly easing
- Productivity Growth averages 2.2% during 2019-22, 0.8% above the baseline
- Consumer Confidence outperforms baseline for the entire forecast interval
- Oil Prices have Brent crude oil averages modestly higher than baseline for the forecast interval
- Stock Markets have the S&P 500 climbs 18.9% in 2019 and 6.0% in 2020
- Inflation Consumer Price Index (CPI) is lower than the baseline from early 2019 to 2027 due to the lower natural rate of unemployment
- Foreign Growth improves thanks to a rebound in productivity growth
- US Dollar eventually depreciates further than baseline due to wider current-account deficit

ECONOMIC OUTLOOK

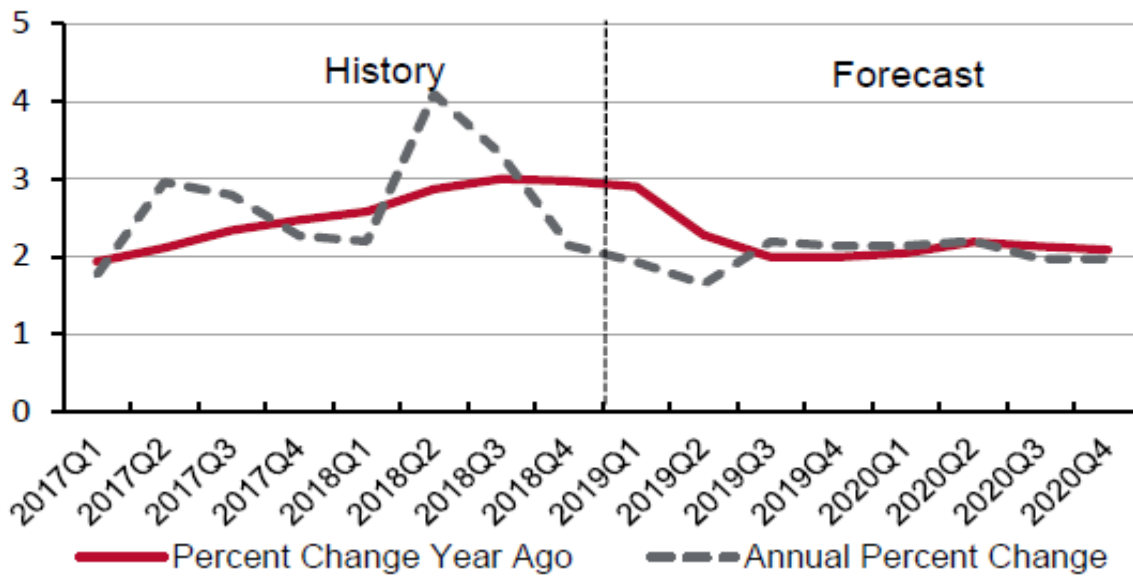
The following charts provide information on some of the key measures in the forecast.

US Total Employment Growth - 3 Scenarios



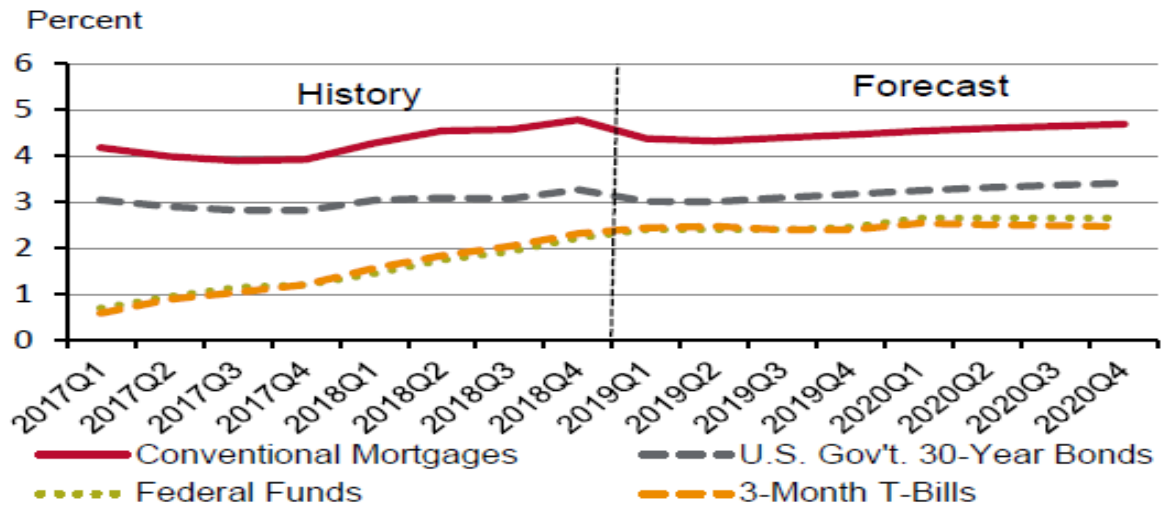
U.S. Real GDP Growth

Percent Change, Y/Y

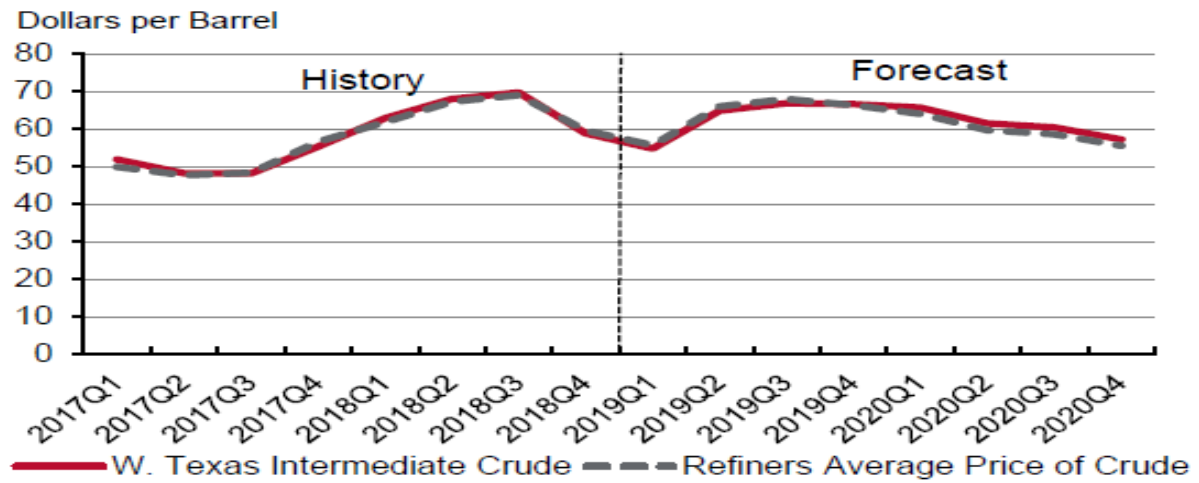


ECONOMIC OUTLOOK

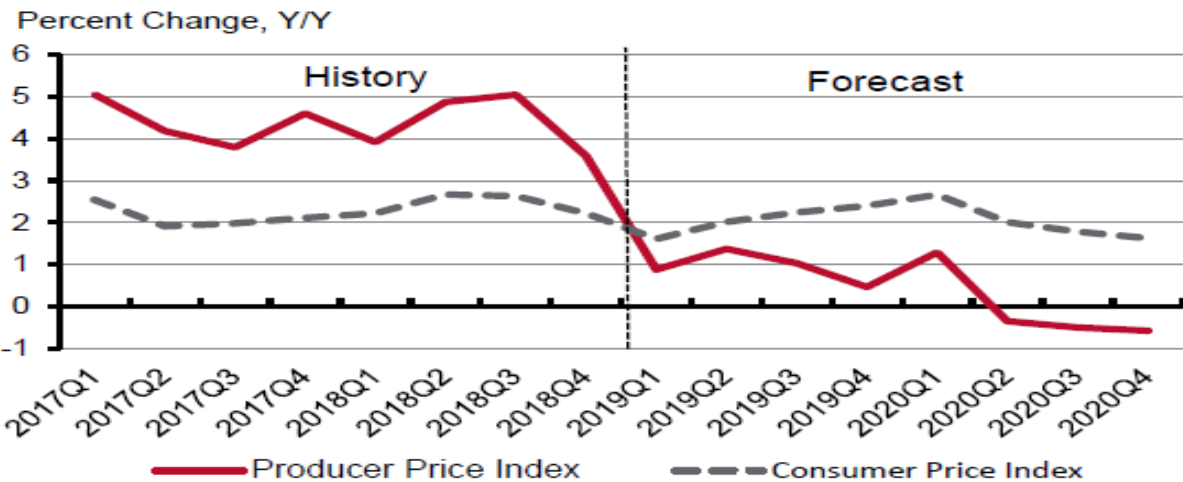
Interest Rates



Oil Prices



Inflation



ALBUQUERQUE ECONOMIC OUTLOOK

The outlook for the Albuquerque economy is developed by the Bureau of Business and Economic Research (BBER) at the University of New Mexico. They use national forecasts from IHS and local insights to develop forecasts of the state and local economy. The BBER FOR-UNM forecasting model for April 2019 provides the forecast of the Albuquerque economy that is presented in the following section.

Albuquerque MSA Employment

According to the most recent data from the Current Employment Statistics (CES), the Albuquerque MSA economy forecast points to growth of 1.2% for the remainder of the year.

Moving forward in 2019, the total employment in the Albuquerque MSA is forecasted to advance 1.0%. The private sector is forecasted to add 1.1% for the year and the government sector is expected to gain 0.6% in the year. Large contributors of growth include the healthcare and professional & technical services sector jobs.

The construction sector is forecasted to add 3.3% in 2019 for that sector's sixth consecutive year of expansion. In 2019 employment in this sector is only expected to average about 27,181 persons, which is below the 2006 peak of 31,181 persons. Construction was a sector that was hit harder than the rest, but it is slowly inching upwards.

Accommodation and food services has been one of the consistent sectors since the start of the current recovery. This sector should expand for the eighth consecutive year by 1.7%.

Administrative and waste services is projected to strengthen by 0.6% in 2019 due to call-center activity in the MSA.

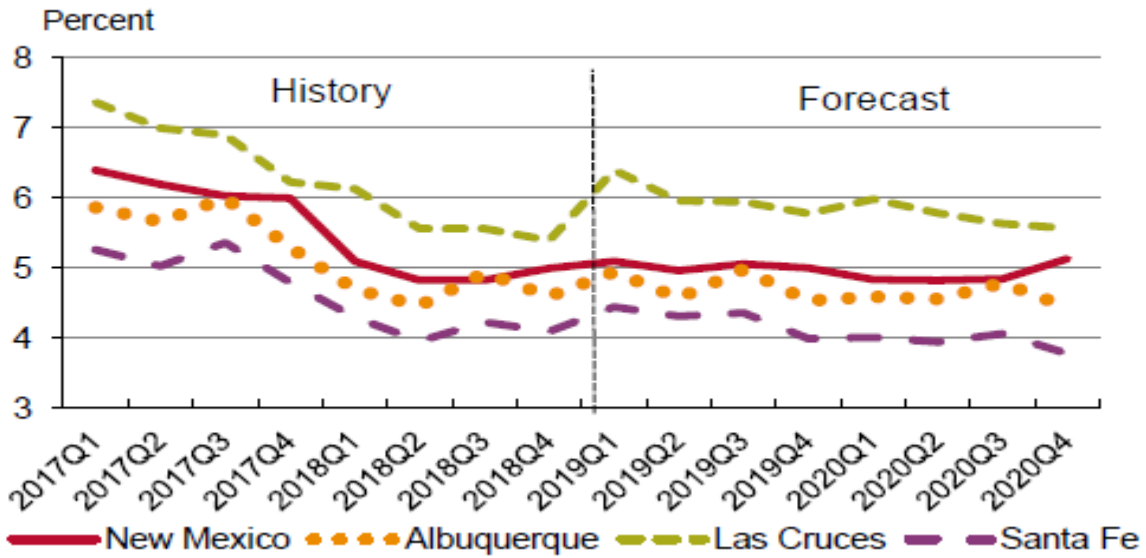
Retail trade is projected to add jobs by 0.3%. Like accommodation and food services, this sector has performed well during the recovery, however, retail trade is still projected to be well below its pre-recessionary employment level.

In the public sector, two of the three levels of government are expected to add jobs. While the federal government is projected to lose jobs (-1.4%), local government (1.2%) and state government (0.9%) are both projected to add jobs.

In the longer term, through 2024 the Albuquerque MSA economy is forecasted to add 17,852 jobs for 1.2% average annual growth (AAG). Most of the growth over the period will be concentrated in the private sector (1.3%), however, the government sector will also contribute (0.6%).

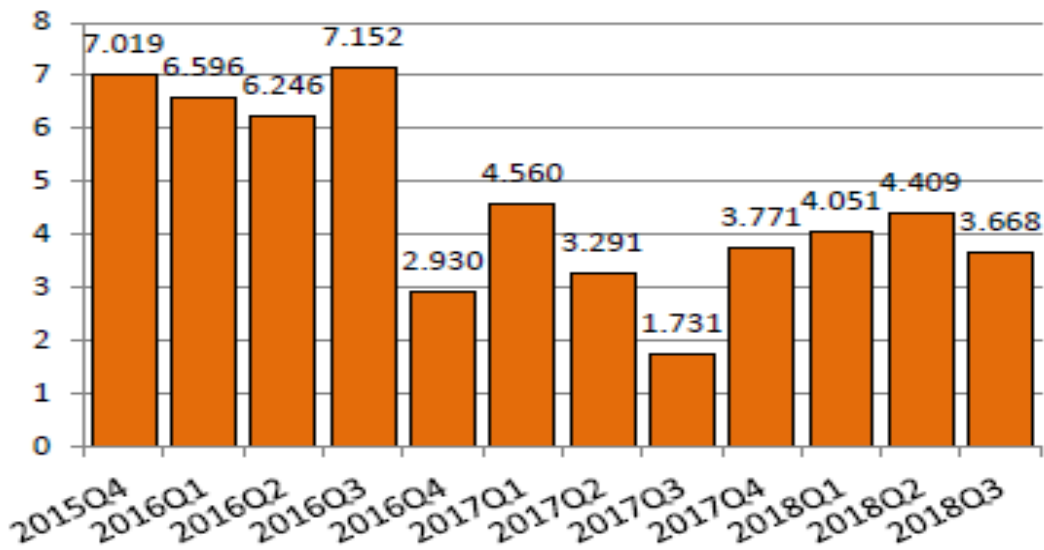
ALBUQUERQUE ECONOMIC OUTLOOK

Unemployment Rates - New Mexico & Metros



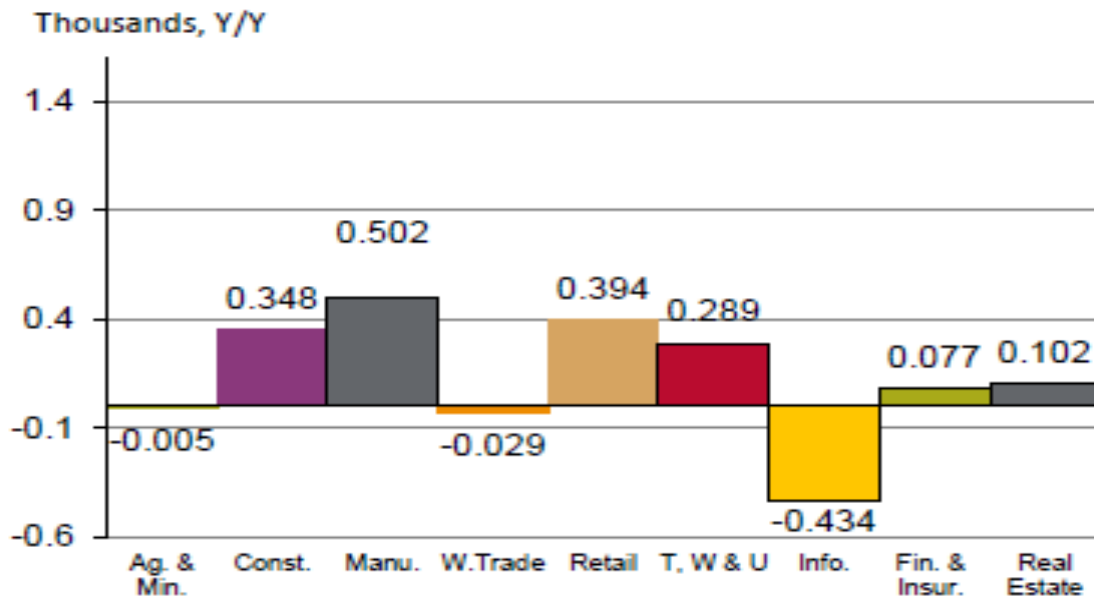
Albuquerque MSA Total Job Addition by Quarter

Thousands, Y/Y

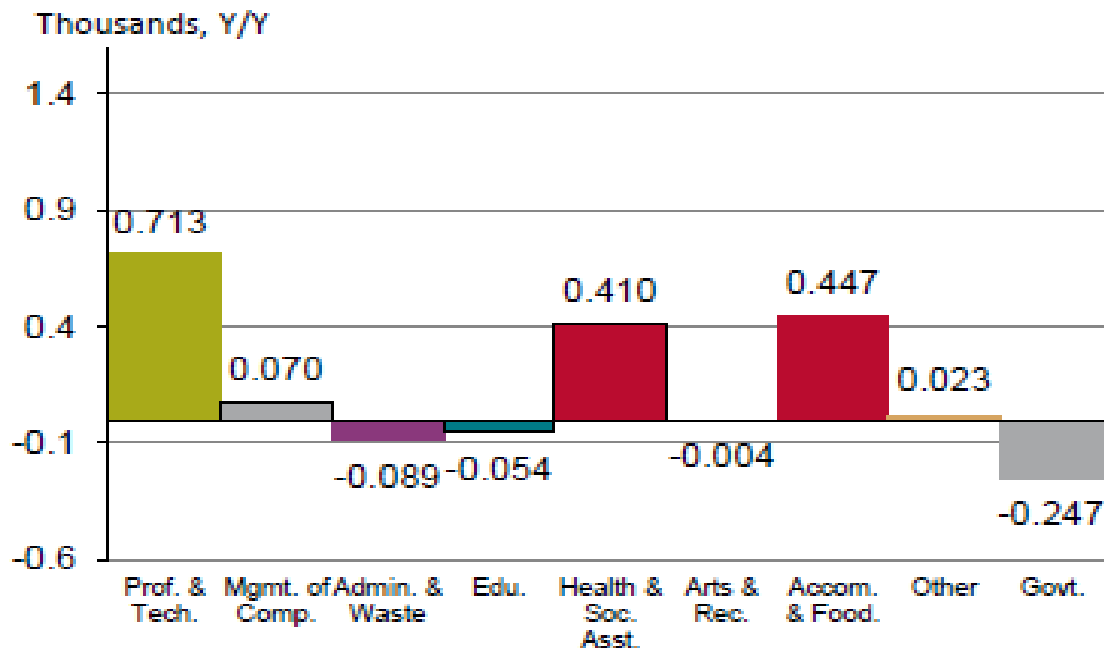


ALBUQUERQUE ECONOMIC OUTLOOK

Abq. MSA Job Addition by Sector: 2017Q3 - 2018Q3



Abq. MSA Job Addition by Sector: 2017Q3 - 2018Q3



ALBUQUERQUE ECONOMIC OUTLOOK

Housing & Construction

Construction permits show the trends in construction and the types of construction. Construction is categorized as new construction or additions, alterations, and repairs. New construction is further separated as residential and commercial.

Total housing permits in the City of Albuquerque are expected to slowly increase throughout the forecast. After coming in at 1,533 permits in 2018, permit activity should climb to 1,714 in 2019 and then 1,818 in 2020 before averaging about 2,000 permits per year thereafter.

Housing Permits – NM & Albuquerque Breakdown (Thousands)

Housing Permits - NM & Albuquerque Breakdown (Thousands)						
	2017	2018	2019	2020	2021	2022
NM Total Housing Units	4.805	4.948	5.381	5.741	6.063	6.238
% Change Year Ago	-6.4	3.0	8.7	6.7	5.6	2.9
NM Single-Family Housing Units	4.003	4.186	4.422	4.74	4.997	5.143
% Change Year Ago	8.4	4.6	5.6	7.2	5.4	2.9
NM Multi-Family Housing Units	0.802	0.762	0.959	1.000	1.066	1.095
% Change Year Ago	-44.4	-5.0	25.9	4.3	6.5	2.7
<hr/>						
City of Albuquerque Total Housing Units	1.563	1.533	1.714	1.818	1.983	2.051
% Change Year Ago	-17.9	-1.9	11.8	6.0	9.1	3.4
City of Albuquerque Single-Family Housing Units	1.122	1.115	1.258	1.284	1.376	1.436
% Change Year Ago	25.2	-0.6	12.8	2.1	7.1	4.4
City of Albuquerque Multi-Family Housing Units	0.441	0.418	0.457	0.533	0.608	0.615
% Change Year Ago	-56.3	-5.2	9.3	16.8	13.9	1.2

The construction sector is forecasted to continue to expand and finally begin to add jobs at a more rapid pace as this sector continues to dig itself out of the hole left from the Great Recession.

Construction Employment (Thousands)

Construction Employment - NM & Albuquerque (Thousands)						
	2017	2018	2019	2020	2021	2022
NM Construction Employment	45.508	47.112	48.737	50.711	51.994	53.192
% Change Year Ago	5.3	3.5	3.4	4.1	2.5	2.3
<hr/>						
Albuquerque MSA Construction Employment	22.623	23.514	24.289	25.171	25.56	26.035
% Change Year Ago	5.3	3.5	3.4	4.1	2.5	2.3



FUNCTIONAL UNITS

*Approved
Operating Budget
FY20*

PERSONNEL INFORMATION

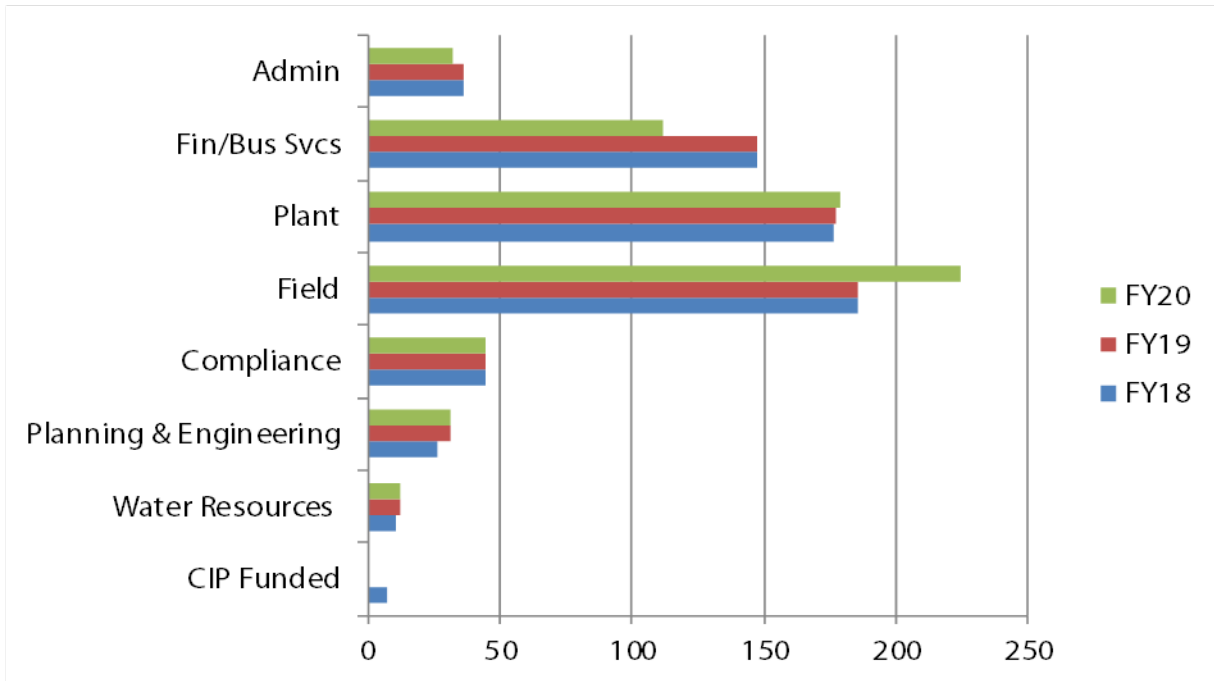
The FY20 budget is authorized and approved at 634 employees.

Three labor unions represent 496 of the 634 Authority employees. Local 2962 AFSME, AFL-CIO, CLC represents 56 clerical series employees, Local 624 AFSCME, AFL-CIO represents 314 blue collar employees and Local 3022 AFSCME, COUNCIL 18, AFL-CIO represents 129 management series employees.

Changes in Employment - The FY20 approved budget has an increase of one full-time equivalent position over the FY19 level; Communications Officer. In FY19, the positions in the CIP Funded department were reallocated to other programs. In FY20, Customer Services Field staff were moved to Water Field Operations and Dispatch staff were moved from Water Field Operations to Customer Services.

POSITIONS	AUDITED ACTUAL FY18	ORIGINAL BUDGET FY19	REVISED BUDGET FY19	ESTIMATED ACTUAL FY19	APPROVED BUDGET FY20	APPR 20/ REV 19 CHG
Administration						
Water Authority	14	14	15	15	11	(4)
Risk	6	6	5	5	5	0
Legal	1	1	1	1	1	0
Human Resources	15	15	15	15	15	0
Total Administration	36	36	36	36	32	(4)
Financial /Business Services						
Finance	30.5	31.5	29.5	29.5	29.5	0.0
Customer Services	91	91	91	91	54	(37)
Information Technology	26	26	27	27	28	1
Total Financial/Business Services	147.5	148.5	147.5	147.5	111.5	(36)
Plant						
Wastewater Treatment	92	92	91	91	92	1
San Juan-Chama Water Treat Plant	30	31	33	33	34	1
Groundwater	54	54	53	53	53	0
Total Plant	176	177	177	177	179	2
Field						
Wastewater Collection	62	62	62	62	62	0
Water Field Operations	123	123	123	123	162	39
Total Field	185	185	185	185	224	39
Compliance						
	44.5	44.5	44.5	44.5	44.5	0.0
Planning & Engineering						
	26	31	31	31	31	0
Water Resources						
	11	11	12	12	12	0
CIP Funded						
	7	0	0	0	0	0
TOTAL FULL TIME POSITIONS	633.0	633.0	633.0	633.0	634.0	1.0

CHANGES IN EMPLOYMENT BY FUNCTIONAL UNIT



Number of Employees

FY20 APPROVED ISSUE PAPERS

Approved issue papers and initiatives funded in FY20 total \$2,886,000. The list below identifies the issues and divisions that received additional funding.

Water Authority Approved Issue Papers - FY20	
Fund 21 - General Fund	2,886,000
Administration	
Executive Director - Communications Officer/Public Affairs	-
COO's Office - Re-assign Planner/Schedulers to Operating	-
Legal - Contract Mediation Services	25,000
HR - M-Series Certification Programs	180,000
Financial Services	
Finance - Finance Reorganization	-
CSD - Re-assign staff to WA Field	-
Field	
WW Collections - Lift Stations Repairs & Maintenance	150,000
WW Collections - Lift Stations Fuels & Lubrication	16,000
WW Collections - Lift Stations Vehicle Maintenance	8,000
WA Distribution Lines - Convert Utility Tech to GIS Specialist	-
WA Field Administration - Re-assign Dispatch staff to CSD	-
Planning & Engineering	
One Stop Shop - Contract Staff	72,000
Water Resources	
WR Planning - Explora STEM Exhibit	355,000
WA Conservation - Water Loss Control Strategies	25,000
GW Protection - Environmental Monitoring Services	150,000
GW Protection - Silver Minnow Refugium-COA MOU	165,000
General Government	
Chemicals	1,500,000
WAF Funding	150,000
Tuition Reimbursement & Incentive Programs	90,000
TOTAL	2,886,000

ADMINISTRATION

ADMINISTRATION

The work units under the Administrative umbrella include Executive Director, Chief Operating Officer's (COO's) Office, Risk, Legal, and Human Resources.

The Executive Director provides overall leadership for Water Authority operations. This program encompasses the Public Affairs operations as well as Policy, Evaluation and Special Projects. Policy, Evaluation and Special Projects provides policy design and development, development of legislation for Water Authority Board approval, staff evaluation of all proposed legislation from the administrative, operational and financial prospective and coordination and development of the Water Authority's annual budget including the Goals and Objectives and the Performance Plan. This unit monitors the Water Authority's progress in meeting the yearly objectives and financial performance. Quarterly progress reports are submitted to the Water Authority Board on the status of the objectives and the financial plan. The Technical Customer Advisory Committee (TCAC), an advisory group to the Water Authority, is coordinated by this unit.

The Chief Operating Officer provides leadership of the Water Authority's operations divisions: Plant, Field, Compliance, Planning & Engineering and Water Resources.

Risk consists of risk and safety compliance staff.

Legal consists of an attorney who functions as general counsel for the utility and provides advice and legal counsel on all aspects of the utility operation. This work includes: advising on labor and employment matters; drafting and reviewing agreements, contracts, legislation, policies and procedures; functioning as a liaison and primary contact for outside counsel; and overseeing and handling collection efforts.

Human Resources provides all human resource functions to the Water Authority. This includes hiring, training, disciplinary actions, benefits, labor relations and other personnel issues as they arise.

FY20 ADMINISTRATION OBJECTIVES

- Provide communications support for high-priority Water Authority programs and initiatives and conduct public outreach regarding Water Authority services, policies and projects through the end of the 4th Quarter of FY20.
- Complete Customer Conversation meetings to engage customers and obtain input from customers on the Water Authority's activities through the end of the 4th Quarter of FY20.
- Conduct a customer opinion survey in order to assess the Water Authority's performance from the customer's viewpoint from previous surveys by the end of the 4th Quarter of FY20.
- Apply artificial intelligence and machine learning to assess current water quality management strategies using predictive early warning intelligence to see occurrences in real-time; develop and implement a pilot program that combines live data from water delivery operations with a hydraulic model to provide real-time water quality indicators by the end of the 4th Quarter of FY20.
- Continue to emphasize Employee Recognition through several initiatives including supervisor training, employee incentive awards, on-the-spot awards, and years of service awards.
- Conduct Employee Engagement and Satisfaction Survey by the end of the 2nd Quarter of FY20; assess and communicate the survey results to employees by the end of the 4th Quarter of FY20.
- Consistent with the EPA's Utility of the Future (UOTF), develop a program that focuses on

ADMINISTRATION

employee and leadership development to achieve sustainability, including actions such as hiring and retaining motivated, participative employees, creating a collaborative organization and positive workplace environment, and providing a positive environmental and community impact; the program may examine potential sources of purpose and meaning for employees and encourage projects and communication efforts that enhance a sense of meaning and purpose.

- Complete two employee wellness challenges per fiscal quarter focusing on nutrition, physical activity and weight loss, and disease and injury prevention to employees by the end of the 4th Quarter of FY20.
- Maintain an average utility-wide vacancy rate of no greater than 5% through the end of FY20.
- Reduce injury hours to 2,625 hours or less to improve productivity and reliability of services provided by employees by the end of the 4th Quarter of FY20.

FY20 ADMINISTRATION HIGHLIGHTS

The Water Authority will continue to conduct periodic activities to engage, educate, and provide updates to customers, legislators and neighborhood associations regarding Water Authority activities and initiatives, and offer opportunities for dialogue and feedback.

In FY20, Risk/Safety will research defensive & over-the-road driving programs, develop safety posters for various Water Authority locations including hazard/exposure information, chemicals in buildings and safety gear required posters and develop the use of Informacast for safety use.

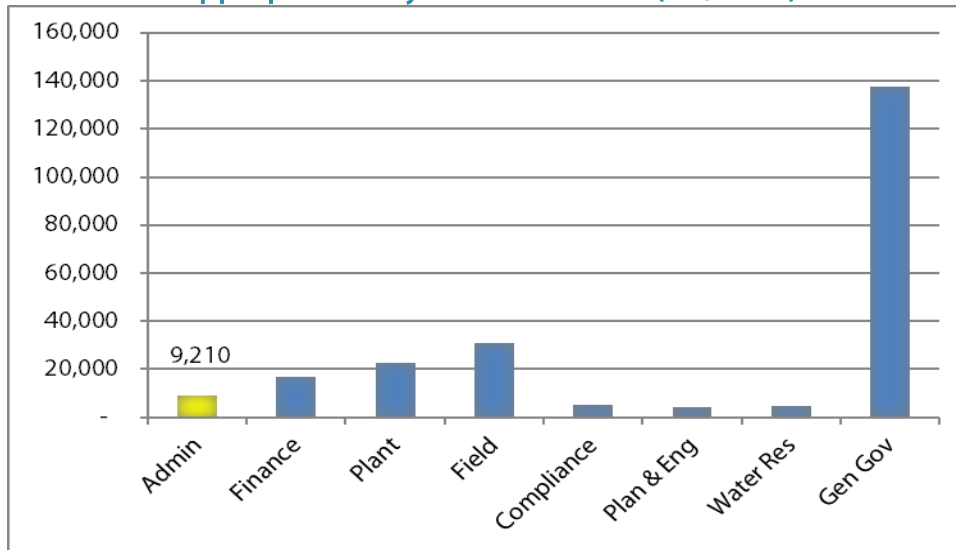
Human Resources wellness staff will continue offering wellness challenges for individuals and departments. At least two fitness challenges per quarter will be offered in conjunction with nutrition, physical activity and weight loss tips as well as disease and injury prevention topics to employees.

Human Resources will be distributing an Employee Satisfaction and Engagement Survey in the fall of 2019. Staff will then prepare a report on the results and distribute by the spring of 2020. With the new AuthorityWorks online application system, staff will create new recruitment brochures and a new benefits flyer for interviewees. Other areas of focus for FY20 include: new and improved employee incentives, improve the intern programs, continue with succession planning and knowledge transfer efforts and continue to update procedures and administrative instructions.

The budget also includes nonrecurring funding for an employee safety incentive program. This program will reward employees for cost savings that result from a decrease in work-related losses. Funding for this program is contingent on the Water Authority generating the same or a greater amount in savings. This incentive program has been an effective tool in the reduction of the Water Authority's Workers Compensation expense.

ADMINISTRATION

Appropriation by Functional Unit (in \$000's)



Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Apr 20/ Rev 19 Chg
Executive Director						
Personnel	712	662	662	678	777	115
Operating	<u>953</u>	<u>762</u>	<u>762</u>	<u>899</u>	<u>670</u>	-
Total	1,665	1,424	1,424	1,577	1,447	115
COO's Office						
Personnel	1,039	1,015	1,049	958	576	(473)
Operating	<u>437</u>	<u>245</u>	<u>245</u>	<u>264</u>	<u>201</u>	(44)
Total	1,475	1,260	1,294	1,222	777	(517)
Risk						
Personnel	484	581	458	473	444	(14)
Operating	<u>3,131</u>	<u>3,953</u>	<u>4,453</u>	<u>4,623</u>	<u>3,953</u>	(500)
Total	3,616	4,534	4,911	5,096	4,397	(514)
Legal						
Personnel	172	171	171	171	174	3
Operating	<u>691</u>	<u>589</u>	<u>589</u>	<u>719</u>	<u>616</u>	27
Total	863	760	760	890	790	30
Human Resources						
Personnel	1,329	1,431	1,431	1,347	1,461	30
Operating	<u>144</u>	<u>157</u>	<u>157</u>	<u>119</u>	<u>338</u>	181
Total	1,473	1,588	1,588	1,466	1,799	211
Total Division	9,092	9,566	9,977	10,251	9,210	(767)
Staffing (FTE)	36	36	36	36	32	(4)

FINANCIAL/BUSINESS SERVICES

FINANCIAL/BUSINESS SERVICES

The Financial/Business Services Division provides the Financial, Customer Services and Information Technology functions for the Water Authority.

Finance provides support and information to the Water Authority as well as outside entities such as bonding agencies, vendors, and local businesses. The section develops and administers rates, bonding functions, arbitrage calculations, budgeting, accounting, payroll, auditing and overall financial support.

Customer Services oversees the application for new services, utility billing, utility revenue collection as well as billing information to water and wastewater customers. In FY20, dispatch operations for the utility moved to Customer Services.

Information Technology maintains and supports the information technology services function of the Water Authority. This includes office automation, GIS applications, operation management systems, billing/collection systems, asset management and work order systems and communication systems.

FY20 FINANCIAL/BUSINESS SERVICES OBJECTIVES

- Improve customer satisfaction and operational efficiency in achieving the four call-center targets through the 4th Quarter of FY20: 1) Average Wait Time of less than 1:00 minute; 2) Average Contact Time of less than 4:00 minutes; 3) Abandoned Call Ratio of less than 3; and 4) First Call Resolution of greater than 95%.
- Improve customer satisfaction by achieving a billing accuracy ratio of less than 8 through the 4th Quarter of FY20.
- Begin implementing Phase 1 of the Water Authority's Final Security Plan based on vulnerability assessments that were performed to reduce physical security and cyber security risks with a goal of completing hardware countermeasures selected for adoption by the end of the 4th Quarter of FY20. Update the Water Authority's Emergency Response Plan by the end of the 4th Quarter of FY20. Complete the AWWA risk and resilience certificate program to demonstrate compliance with America's Water Infrastructure Act of 2018.
- Update the Comprehensive Information Technology Security Plan and related policies that are aligned with the standards, guidelines, and best practices of the National Institute of Standards and Technology Cybersecurity Framework to protect the utility's critical infrastructure from cyber-attacks by the end of the 2nd Quarter of FY20.
- Complete a needs assessment of the Supervisory Control and Data Acquisition (SCADA) system; implement recommendations of the assessment for the updated platform to align with the asset management program by the end of the 1st Quarter of FY20.
- Complete the Maximo upgrade to provide better service, better decision making, and stewardship of its resources by the end of the 4th Quarter of FY20; upgrade utility Enterprise Applications and expand usage of Splunk data analytics tool to implement functions for cyber security, water quality and telemetry/vehicle location solutions; and replace all 800 MHz radios with push to talk technology.

FY20 FINANCIAL/BUSINESS SERVICES HIGHLIGHTS

Finance will submit to GFOA the FY20 Approved Budget for the Distinguished Budget Presentation Award, the FY19 Comprehensive Annual Financial

Report (CAFR) for the Certificate of Achievement for Excellence in Financial Reporting and the FY19 Popular Annual Financial Report (PAFR) for the

FINANCIAL/BUSINESS SERVICES

Popular Annual Financial Reporting Award. The division believes that all three financial documents meet or exceed the recommended requirements to successfully receive each award and to also be nationally recognized by GFOA for these accomplishments.

In FY20, Accounting Services will continue the Maximo implementation with the inventory of all assets, updating the data for each asset, updating install dates, purchase price and replacement cost, updating depreciation schedules and developing risk/insurance management reports of the assets.

Purchasing will fully implement the new Warehouse Ordering and Inventory Management Policy, complete the implementation and go-live of the new online bidding/proposal evaluation tool, prepare for moving all inventory and staff from the Pino Warehouse location to the new warehouse at Surface Water and solicit and award new on-call construction/engineering agreements and implement new administrative procedures to improve the effectiveness of those contracts.

Budget will continue to provide budget and ERP system training to utility staff and schedule monthly budget update meetings with staff.

In FY20, Treasury will complete the transition of banking services per the RFP issued in FY19, partner with CSD, ITD and Public Affairs to update bill presentment and payment navigation on the Authority's website and maintain a diversified investment portfolio.

In FY20, dispatching functions will transfer from WA Field Operations to Customer Services. CSD staff will utilize the increased functionality of the upgraded CC&B system to expand the use of templates, known as campaigns, to convert existing business processes and to convert current rates to

the new rate engine and to implement the Water Resources Charge. CSD will issue an RFP and award a contract with a vendor to implement a meter data management (MDM) system to store and manage data from AMI and non-AMI meters. CSD staff will participate in the AWWA Rate Study.

ITD Quality Assurance staff will upgrade utility desktop operating systems to Windows 10, identify and document all IT assets into Maximo, support the buildout of the new administration building and develop enterprise training initiatives.

ITD Infrastructure objectives for FY20 include upgrading the card key and video surveillance system to build in redundancy, implement backup and recovery solutions for SCADA and enterprise and support the buildout of the new administration building.

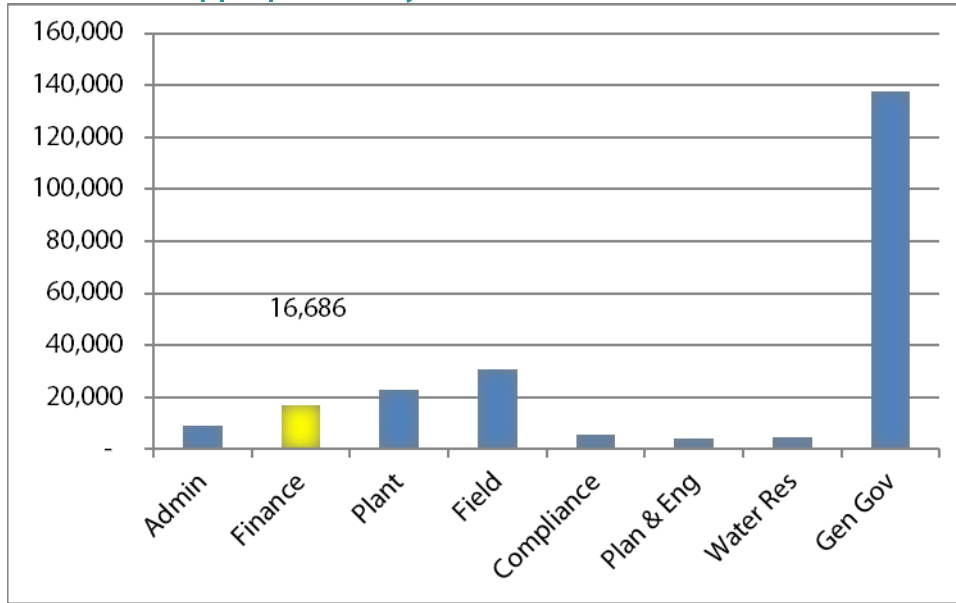
ITD Network staff will upgrade the SCADA fiber and network equipment at the Surface Water Treatment Plant, upgrade core network equipment for the new administration building and upgrade end-of-life network equipment from previously leased equipment.

ITD Application staff will continue the Maximo upgrade, including: training, life cycle accounting, asset onboarding, storeroom, barcoding and mobile assessment. Staff will also perform a CC&B archive and purge, report standardization for Splunk-AVL and MeterSense applications, and lead upgrades to various enterprise applications: OneSolution, Kronos, Cognos and GIS.

IT Security will be a major focus in FY20. Staff will be: completing security awareness training videos for all Water Authority staff including a New Employee Orientation/Supervisor training security video, completing security policies and procedures, and reducing the overall risk assessment scores.

FINANCIAL/BUSINESS SERVICES

Appropriation by Functional Unit (in \$000's)



Expenses by Department ((\$000's))	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Aprr 20/ Rev 19 Chg
Finance						
Personnel	2,597	2,768	2,604	2,505	2,708	104
Operating	<u>1,270</u>	<u>1,416</u>	<u>1,416</u>	<u>1,313</u>	<u>1,416</u>	<u>1</u>
Total	3,867	4,184	4,020	3,817	4,124	104
Customer Services						
Personnel	6,246	6,373	6,373	6,440	3,222	(3,151)
Operating	<u>2,436</u>	<u>2,677</u>	<u>2,677</u>	<u>2,540</u>	<u>1,970</u>	<u>(707)</u>
Total	8,682	9,050	9,050	8,980	5,192	(3,858)
Information Technology						
Personnel	3,021	3,165	3,309	3,359	3,439	131
Operating	<u>3,977</u>	<u>3,931</u>	<u>3,931</u>	<u>3,564</u>	<u>3,931</u>	<u>-</u>
Total	6,998	7,096	7,239	6,923	7,370	131
Total Division	19,547	20,330	20,309	19,720	16,686	(3,623)
Staffing (FTE)	147.5	148.5	147.5	147.5	111.5	(36.0)

PLANT

PLANT

The Plant Division is responsible for operating and maintaining the facilities required for providing a safe and sustainable water supply and treating and disposing of wastewater generated in the community.

Wastewater and Biosolids Management

The Southside Water Reclamation Plant provides preliminary screening, grit removal, primary clarification and sludge removal, advanced secondary treatment including ammonia and nitrogen removal, final clarification, and effluent chlorination and dechlorination prior to discharge to the Rio Grande River. Treatment plant capacity is based upon 76 MGD hydraulic capacity. The treatment plant has a 6.6 mega-watt cogeneration facility. This facility supplies 100% of the treatment plant's present electrical needs, along with providing heating of various buildings and sludge digesters. The engines are fueled by methane produced in the digesters and by natural gas purchased through a contract carrier. The plant currently generates electricity from the bio-gas produced in the digesters. This is no cost gas that qualifies the electricity generated for Renewable Energy Certificates (REC). These certificates have a value to other electrical energy producers and the Authority continues to research on how to sell its RECs to increase revenue.

Total beneficial reuse of biosolids is accomplished by a combination of land application on 5,000 acres of public-private range land (85% of sludge produced) and production of compost (15% of sludge *Non-potable Water Reuse*).

The existing North I-25 reuse and reclamation system is operated by the Plant Division. The system includes a Ranney type diversion structure on the Rio Grande that diverts a small portion of San Juan-Chama water that is combined with industrial effluent to provide a source of non-potable water for large irrigation sites in the north valley and northeast heights. Operational in April 2013, the Southside Re-use Program will use treated wastewater from the Water Authority's Southside Water Reclamation Plant, which includes domestic and industrial wastewater, to irrigate turf at parks, fields and other recreational areas. The project allows less reliance on unsustainable groundwater pumping and helps protect the aquifer.

Drinking Water

The Water Authority currently operates and maintains two different water systems capable of providing high quality drinking water to the community. The San Juan-Chama Drinking Water Project will supply 70-75% of the metropolitan area's future water. Surface water from the Rio Grande is diverted from the river through a high-tech, 620-foot-long adjustable height bladder dam. Eight miles of pipeline transports the diverted water to the new water treatment plant for purification. Thirty-six miles of new pipeline then transports the treated water to the existing reservoirs throughout the service area.

Groundwater from the middle Rio Grande basin aquifer provides supply during peak and drought and consists of 60 wells grouped in 17 well fields located throughout the metropolitan area. Total well production capacity is approximately 294 million gallons per day (MGD). A chlorination/fluoridation station associated with each well field satisfies the total required water treatment needs for the water produced in each well field. In addition, to the surface water facilities, the division is also responsible for operating and maintaining the arsenic treatment plant at the College Reservoir site, the water system that serves the Metropolitan Detention Center, and the Cordero Mesa Business Park.

Ground storage reservoirs provide for fire, peak hour and uphill transfer storage. Water is distributed from higher to lower elevations through a 115-foot vertical height pressure zone to provide minimum static pressures of 50 psi for consumers. Sixty-six reservoirs are located throughout the service area, with a total reservoir storage capacity of 245 million gallons. If demand requires, reservoir water can also be transferred uphill through a pressure zone to the next highest reservoir or in an east-west series of reservoirs by means of pump stations sited at the reservoirs. There are a total of 129 boosters, with a total capacity of 775 MGD, available for water transfers between reservoirs.

PLANT

FY20 PLANT OBJECTIVES

- Complete Ground Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 60% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.
- Complete Surface Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 60% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.
- Submit annual distribution and treatment data to the Partnership for Safe Water program for inclusion in the program's annual report of aggregated system water quality data; continue work on items identified from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20
- Limit overall permit excursions to no more than 5 operating discharge permit violations through the end of the 4th Quarter of FY20.
- Beneficially reuse biosolids by diverting 30% to compost thru the end of the 4th Quarter of FY20.
- Complete Waste Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 45% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.
- Continue work on the Partnership for Clean Water program for the water reclamation treatment to optimize system operations and performance; continue work on outstanding items from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20.

FY20 PLANT HIGHLIGHTS

The operational cornerstone of *Water 2120* is the San Juan-Chama Drinking Water Project (DWP), which will continue to have a major positive impact on the ground water resources in the Middle Rio Grande. After ten years of operation, the DWP – along with conservation and other resource management efforts – has resulted in rising aquifer levels throughout the service area as documented by the U.S. Geological Survey. A video documenting this success is available for viewing at: <https://www.youtube.com/watch?v=Z6stQZw2L1M&feature=youtu.be>

The Water Authority will continue to operate two potable water supply systems, the surface water and the ground water systems. This dual system operation will continue into the future with the primary source of supply being treated surface water from the DWP. The DWP provided 53% of all water distributed to Water Authority customers in calendar year 2018. The Water Authority's goal is to have the DWP supply 70-75% of all customer demand in calendar year 2019. Flow conditions in

the Rio Grande may limit the ability to fully realize this goal on a consistent basis.

The Water Authority began a major renovation of the Southside Water Reclamation Plant (SWRP) in FY10 called the Reclamation Rehabilitation and Asset Management Plan (RRAMP). The RRAMP is a multi-year program to renew the treatment processes at the plant. Several key improvement projects in this program have been completed, including the Preliminary Treatment Facility (PTF), aeration basin and air piping renovations, final clarifier renovations, and major renovations and improvements to the Solids Dewatering Facility (SDF). Improvements will also be made to the Anaerobic Digesters, Primary Clarifiers, Secondary Sludge Thickening Facilities, plant-wide electrical systems, and other SWRP facilities.

Plans are to continue to increase the amount of wastewater bio-solids that are composted and sold while not "over-saturating" the regional market for bio-solids compost and sell at least 30% of the total quantity of bio-solids. SWRP staff will focus on completing work on the 9 areas selected

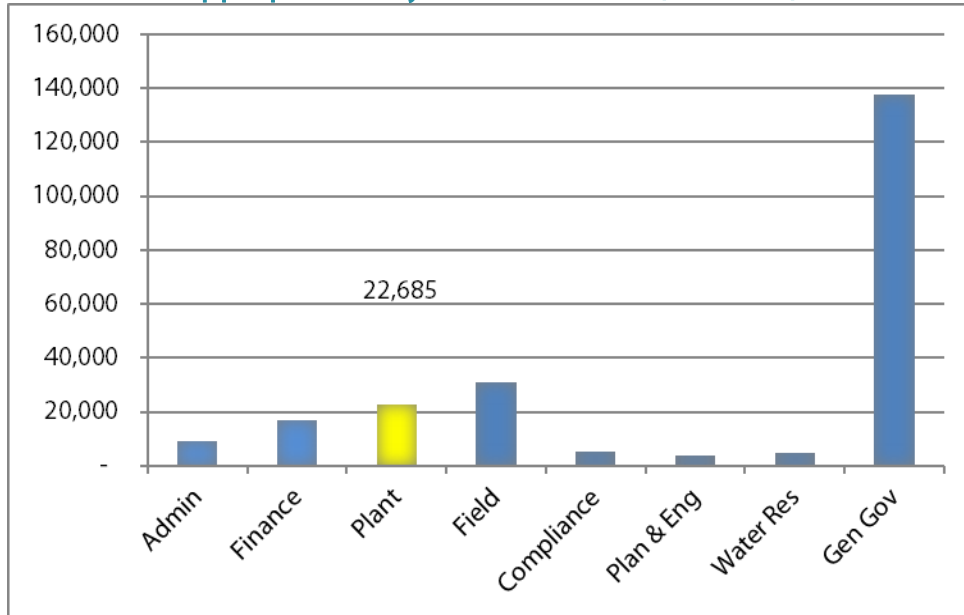
PLANT

for focused improvement from the AWWA Partnership for Clean Water Phase III Self-Assessment. Staff will also continue updating plant asset records, preventative maintenance, and preventative maintenance routes in Maximo.

In FY20, the SWTP will focus on construction of a dewatering system for iron sludge and managing the sludge discharges to the collection system. The permanent fluoride addition facility will be completed during the fiscal year. SWTP staff will complete work on the 8 areas selected for focused improvement from the AWWA Partnership for Safe Water-Treatment Phase II Self-Assessment.

For FY20, Groundwater Operations will fine-tune system operations to the State Drinking Water Act (SDWA) standards for arsenic and the prescribed range for fluoride. Staff will be renovating/replacing aging motor control centers and renovate interior piping and valves at several pump stations, replacing older ClorTec disinfection systems with new PSI systems, renovating the Charles Wells Reservoir, and repairing/replacing reservoir hatches in advance of the 2020 Sanitary Survey.

Appropriation by Functional Unit (in \$000's)



PLANT

Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Appr 20/ Rev 19 Chg
Wastewater Plant						
Personnel	8,231	8,350	8,275	8,327	8,720	444
Operating	<u>2,747</u>	<u>3,076</u>	<u>3,076</u>	<u>3,146</u>	<u>3,066</u>	<u>(9)</u>
Total	10,978	11,426	11,351	11,474	11,786	435
San Juan-Chama WTP						
Personnel	2,669	3,033	3,205	3,152	3,327	123
Operating	<u>809</u>	<u>938</u>	<u>938</u>	<u>888</u>	<u>958</u>	<u>20</u>
Total	3,479	3,971	4,142	4,040	4,285	143
Groundwater Operations						
Personnel	4,965	5,123	5,006	4,967	5,207	201
Operating	<u>1,323</u>	<u>1,506</u>	<u>1,506</u>	<u>1,275</u>	<u>1,407</u>	<u>(99)</u>
Total	6,288	6,629	6,512	6,242	6,614	102
Total Division	20,745	22,026	22,005	21,755	22,685	680
Staffing (FTE)	176	177	177	177	179	2

FIELD

FIELD

The Field division is responsible for operating and maintaining the water distribution system, wastewater collection and non-potable reuse distribution system. Drinking water is distributed to approximately 676,298 residents comprising approximately 95% of the residents of Bernalillo County. About one-third of unincorporated County residents are customers of the Water System. Service is provided to approximately 211,899 accounts, including 183,018 residential and 28,881 multi-family, commercial, institutional and industrial accounts. Approximately 50% of the water sales are for residential uses.

Wastewater Collection and Lift Stations

Wastewater Collections serves both customers connected to the collection system and those transporting wastewater to the treatment plant. The wastewater system consists of small diameter collector sewers, sewage lift stations, and large diameter interceptor sewers conveying wastewater flows by gravity to the Southside Water Reclamation Plant located south of the service area.

The wastewater collection system also includes lift stations that convey wastewater from lower to higher areas or across the Rio Grande. In the north and south valley, wastewater is collected in a vacuum system that includes valve pits, vacuum lines and a vacuum pump station that collects and conveys wastewater to gravity sewers to the Southside Water Reclamation plant for treatment and disposal.

The Field division provides contract operations for existing storm water lift stations. These lift stations move storm water from low lying areas to other facilities for ultimate discharge to the Rio Grande.

Water Distribution

The water distribution system consists of more than 3,130 miles of transmission and distribution pipelines that transport drinking water from the reservoirs to our customers throughout the service area. The water system takes advantage of the unique topography of the Water Authority's service area which allows ground level storage while simultaneously providing system pressure by gravity. Control of the water system is provided by remote telemetry units distributed throughout the system for control from a central control facility.

In addition, the Field division is responsible for water service lines, large and small diameter valves, pressure reducing and air relief valves and utility line locations. The division is responsible for main and service line repairs, street and sidewalk excavations/restoration, system shutdowns for construction coordination and radio dispatch functions. The Field division also includes the Fleet Maintenance department which provides all maintenance and repairs to the vehicles and equipment in the Water Authority's fleet. In FY20, water meter reading and meter boxes and meter installation were re-assigned to the Field division.

FY20 FIELD OBJECTIVES

- Submit annual distribution and treatment data to the Partnership for Safe Water program for inclusion in the program's annual report of aggregated system water quality data; continue work on items identified from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20
- To improve energy efficiency and reduce operation and maintenance costs, continue the Automated Meter Infrastructure Pressure Monitoring project and assess opportunities for operational efficiency within pressure zone 4ER and the Paseo Del Norte/Eagle Ranch interconnection by the end of the 4th Quarter of FY20.
- To ensure the accessibility of valves and reduce interrupted service, create a systemic approach to preventative and corrective valve

FIELD

maintenance by the end of the 4th Quarter of FY20.

- To improve the validated water audit inputs for apparent water loss, conduct a statistically significant number of small meter tests to support the water audit and strategic water loss plan by the end of the 4th Quarter of FY20.
- Televis and assess the condition of approximately five percent of the small diameter sanitary sewer system by the end of the 4th Quarter of FY20.
- Complete the Capacity Management Operations Maintenance (CMOM) Program Self-

Assessment by the end of the 2nd Quarter of FY20.

- Develop and implement a process to capture new construction for inclusion in Maximo and ITpipes Repository after GIS unique identifiers are established; complete process by end of 4th Quarter FY20.
- Continue implementation of the Automated Meter Infrastructure (AMI) project by modernizing aging meter infrastructure with smart meters to increase revenue, support conservation efforts, and provide better customer service by the end of the 4th Quarter of FY20.

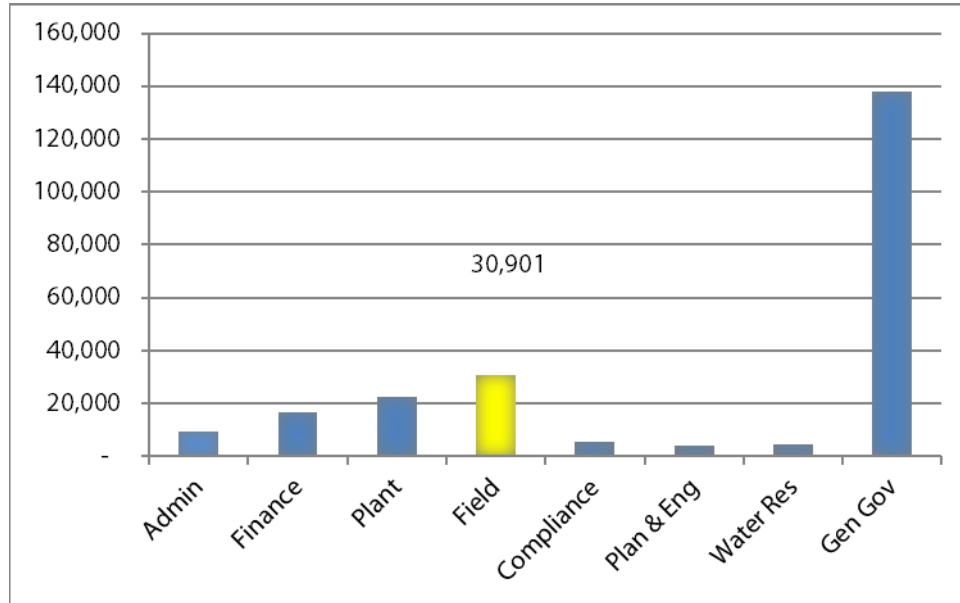
FY20 FIELD HIGHLIGHTS

Wastewater Collections continues to implement the CMOM program and prepare the CMOM Program Self-Assessment during FY20. Staff will clean small diameter lines in major intersections that have not been cleaned in the last 10 years, televis and assess the condition of 5% of the small diameter system and develop and implement a process to capture new construction CCTV for inclusion in both Maximo and IT Pipes Repository after GIS unique identifiers are established.

Water Distribution Field will continue the Automated Meter Infrastructure (AMI) Pressure Monitoring project and assess opportunities for operational efficiency within pressure one 4ER and the Paseo Del Norte/Eagle Ranch interconnection. To support the water loss audit and strategic water loss plan, staff with conduct a statistically significant number of small meter tests. Staff will continue implementation of the AMI project by modernizing aging meter infrastructure with smart meters to increase revenue, support conservation efforts and provide better customer service.

FIELD

Appropriation by Functional Unit (in \$000's)



Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Apr 20/ Rev 19 Chg
Wastewater Collection						
Personnel	5,412	5,431	5,431	5,618	5,622	191
Operating	<u>1,412</u>	<u>1,270</u>	<u>1,270</u>	<u>1,655</u>	<u>1,455</u>	<u>185</u>
Total	6,824	6,701	6,701	7,272	7,077	376
Water Field Operations						
Personnel	9,628	10,136	10,192	9,912	13,749	3,557
Operating	<u>8,527</u>	<u>9,459</u>	<u>9,459</u>	<u>7,531</u>	<u>10,075</u>	<u>616</u>
Total	18,154	19,595	19,651	17,444	23,824	4,173
Total Division	24,978	26,296	26,352	24,716	30,901	4,549
Staffing (FTE)	185	185	185	185	224	39

COMPLIANCE

COMPLIANCE

Water and wastewater operations are regulated by a myriad of federal, state, and local environmental permits, regulations, rules, etc. including Safe Drinking Water Act regulations and National Pollutant Discharge Elimination System permits, state Solid Waste Facility, Ground Water Discharge, and Underground Storage Tank Permits and Registration, and Bernalillo County Air Quality permits. The Compliance Division continues to develop and maintain a matrix to define requirements, index historical compliance reports and manage submittals to assure all regulatory requirements and procedures are met accurately and on time. Water Quality serves the water operations group to assure continued compliance with drinking water regulations, including monitoring for the San Juan-Chama Water Treatment Plant (SJCWTP), as well as to provide process control monitoring for all facilities and source water monitoring of known and suspected groundwater contamination and the Rio Grande surface water supply. NPDES monitors and regulates industrial discharges by Authority ordinance to assure quality of influent to the Southside Water Reclamation Plant (SWRP) for pollutants of concern: heavy metals, toxic organics, and extra strength discharges and monitors effluent and sludge quality. While drinking water customer complaints and inquiries are addressed expeditiously and an annual Water Quality Report is provided to consumers, the P2 program continues to assist regulated industrial waste discharge customers and the public to reduce potential pollution threats. The Water Quality Laboratory (WQL), an internationally accredited environmental laboratory, provides more than 18,500 sample analyses annually to support Plant and Field Operations and other client groups.

FY20 COMPLIANCE OBJECTIVES

- Monitor compliance with the Water Authority's Cross Connection Prevention and Control Ordinance. Obtain a compliance rate goal of 75%.
- Monitor compliance with the Water Authority's Sewer Use and Wastewater Control Ordinance by continuing to inspect, monitor, and take enforcement action for permitted industrial users, septage waste haulers, food service establishments, and dental offices. Compliance rate goal is 87% for each category.
- Implement the Fats, Oils, and Grease (FOG) Policy to reduce impacts on the sewer system by inspecting each Food Service Establishment (FSE) once every three years, working with the Collections section with Sanitary Sewer Overflow (SSOs) investigations, and convene FOG Task Force of other governmental entities to coordinate efforts to reduce FOG discharges. Track and report the number of SSOs due to FOG compared with previous years.
- Maintain the Compliance Division Regulatory Compliance Permit Matrix and the Regulatory Matrix Status Report to respectively maintain schedules for permit submittals and monitor and report emerging Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) regulations, New Mexico Water Quality Control Commission and Environmental Improvement Board regulations, and local laws ordinances, etc. to identify and assess potential impacts on the Water Authority. Provide quarterly reports through the end of the 4th Quarter of FY20.
- Collect, monitor, and report weekly, monthly and quarterly key laboratory performance metrics to include: WQL results approved and reported for each laboratory section (chemistry, microbiology, metals, and external labs), laboratory productivity (results reported per productive hour), and the percentage of results reported late (turnaround time (TAT)). Compare to industry benchmarks.
- Continue to develop LabVantage application system throughout FY20 to increase the automation of data entry to reduce data entry errors and reduce the amount of paper used at the laboratory. Develop dashboards to help analysts and management manage samples and reagents. Expand the collection of electronic data to field analytics, balances, probes, and spectrophotometry instruments stored in the Database of Compliance.
- Continue to develop the Environmental Monitoring Program to improve the reliability

COMPLIANCE

of results from field instrumentation and sample collection techniques. Develop a program plan based on designated International Organization for Standardization (ISO) standard to address accreditation requirements to include standard operating procedures, document control and records management plans, and a process for demonstration of staff capability. Develop a program-wide audit plan to monitor compliance with standard operating procedures in the field and the laboratories. Implement program plan by the end of the 4th Quarter of FY20.

- Transition to ISO and the International Electrotechnical Commission (IEC) ISO/IEC 17025:2017. Prepare for the American

Association for Laboratory Accreditation (A2LA) biennial on-site assessment of the Water Quality Laboratory including completing required internal audits and annual review and revision of Standard Operating Procedures.

- Track external subcontract laboratory costs that are processed by the Water Quality Laboratory. Improve how the laboratory manages sample submissions to external laboratories and make available the cost of external subcontract laboratory analysis for reporting.
- Monitor for Pharmaceuticals and Personal Care Products (PPCPs) in the source water, drinking water and wastewater. Report the findings of voluntary monitoring by the end of the 2nd Quarter of FY20. Compare the results to historical monitoring performed in 2009-2010.

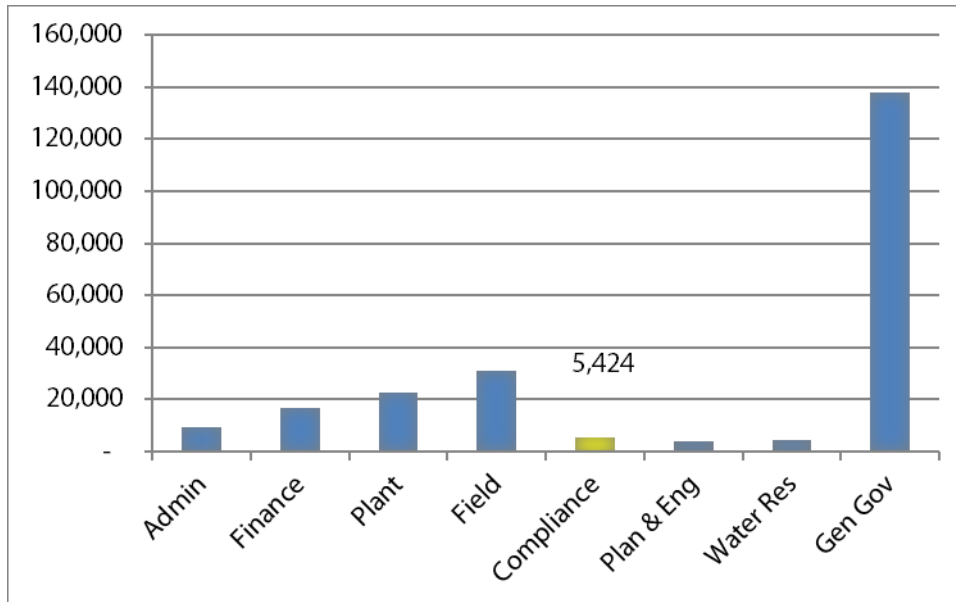
FY20 COMPLIANCE HIGHLIGHTS

Water and Wastewater Operations are regulated by a myriad of federal, state, and local environmental permits, regulations, and rules. The Compliance Division continues to maintain a matrix that is updated quarterly of regulatory requirements to monitor regulatory initiatives to define operational impacts and develop compliance strategies.

In FY20, the NPDES program will work with the EPA on obtaining a final NPDES permit. The new permit may require changes to the sampling plan. The report on Pharmaceuticals and Personal Care Products will be issued. UCMR4 sampling will continue on drinking water. The Water Quality Lab will continue optimizing LabVantage and move towards updated laboratory standards required by accreditation.

COMPLIANCE

Appropriation by Functional Unit (in \$000's)



Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Apr 20/ Rev 19 Chg
Laboratory						
Personnel	1,632	1,770	1,804	1,632	1,893	89
Operating	<u>257</u>	<u>513</u>	<u>513</u>	<u>465</u>	<u>516</u>	<u>3</u>
Total	1,889	2,283	2,317	2,097	2,409	92
NPDES						
Personnel	1,004	1,451	1,417	1,286	1,447	30
Operating	<u>97</u>	<u>147</u>	<u>147</u>	<u>125</u>	<u>148</u>	<u>1</u>
Total	1,101	1,598	1,564	1,411	1,595	31
Water Quality						
Personnel	832	906	906	913	946	40
Operating	<u>420</u>	<u>474</u>	<u>474</u>	<u>508</u>	<u>474</u>	<u>-</u>
Total	1,252	1,380	1,380	1,422	1,420	40
Total Division	4,242	5,261	5,261	4,931	5,424	163
Staffing (FTE)	44.5	44.5	44.5	44.5	44.5	-

PLANNING & ENGINEERING

PLANNING & ENGINEERING

The division coordinates and manages Capital Improvement Plan (CIP) line extensions and infrastructure design for water and wastewater system expansion, manages water and wastewater line rehabilitation and reviews and approves new water and wastewater utility development. The group also coordinates and manages small diameter water and wastewater rehabilitation and replacement to developed areas of the North and South Valley.

FY20 PLANNING & ENGINEERING OBJECTIVES

- Continue distribution water loss program by locating water leaks from surveying 650 miles of small diameter water lines through conventional leak detection methods and 2,200 miles of small diameter water lines through acoustic leak detection by the end of the 4th Quarter of FY20; track, evaluate, and report on pilot-scale Echologics acoustic leak detection system on a quarterly basis in FY20.
- Expend \$58 million in water and wastewater capital rehabilitation and replacement programs to replace aging, high risk assets that are past their useful life by the end of the 4th Quarter of FY20. \$1 million shall be dedicated and used for identifying steel water pipes in critical or poor condition by the end of the 4th Quarter of FY20.
- Continue implementation of the Reclamation Rehabilitation Asset Management Plan by planning, designing and constructing reclamation facility improvements through the end of the 4th Quarter of FY20.
- Implement one planned Interceptor Rehabilitation project in FY20, and complete three interceptor design packages by the 4th Quarter of FY20; implement one planned Small Diameter Sanitary Sewer Rehabilitation project in FY20; complete design of Grit Collection Station near 12th Street/Interstate 40 by end of the 2nd Quarter of FY20.
- Complete an update to the 2011 Comprehensive/Utility Wide Asset Management Plan to provide a detailed gap analysis of the Water Authority's asset registry by the end of the 4th Quarter of FY20.
- In order to provide a central location for processes and procedures, finalize a complete draft of the Utility Development Guide by the end of the 2nd Quarter of FY20; update System Expansion Ordinance to align to the Guide; review fee structure for Utility Development deliverables.
- Continue construction of the Los Padillas water system through the end of the 4th Quarter of FY20.

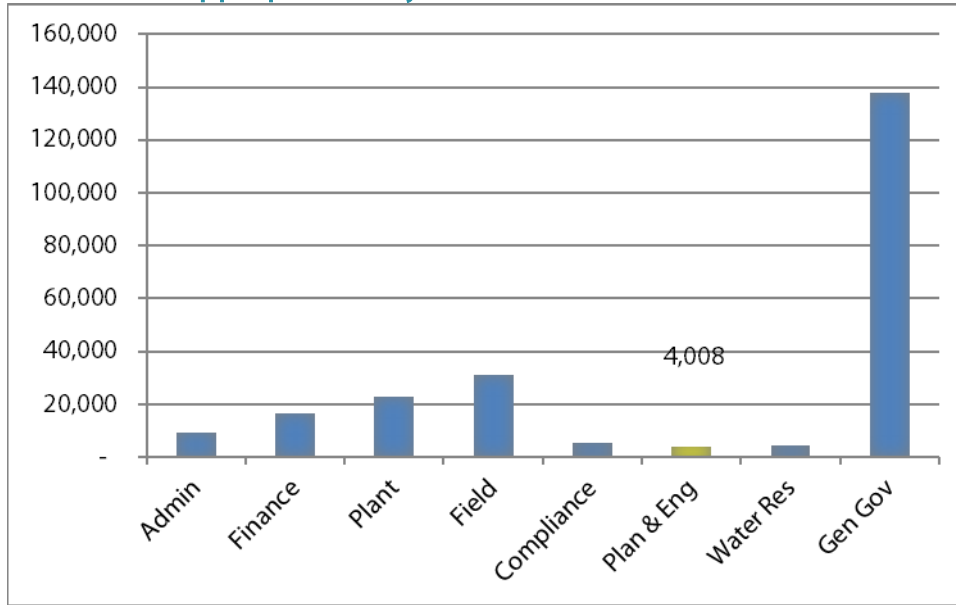
FY20 PLANNING & ENGINEERING HIGHLIGHTS

Planning & Engineering will complete the Guide to Development, complete the Field Asset GPS Coordinates Program, and prepare a list of recommended modifications to the Expansion Ordinance in coordination with the Guide to

Development. Staff will be developing a proposed fee schedule for Utility Development deliverables and begin work on a Construction Inspection Manual. Maps/Records staff will develop GIS layers for SAD Interceptor Flows and tapping permits.

PLANNING & ENGINEERING

Appropriation by Functional Unit (in \$000's)



Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Apr 20/ Rev 19 Chg
Central Engineering						
Personnel	2,006	2,776	2,776	2,587	2,872	96
Operating	72	136	136	147	66	(70)
Total	2,078	2,912	2,912	2,734	2,938	26
1 Stop Shop						
Personnel	344	430	430	414	411	(19)
Operating	59	12	12	85	85	73
Total	403	442	442	500	496	54
Maps/Records						
Personnel	399	435	435	444	466	31
Operating	80	110	110	74	108	(2)
Total	479	545	545	518	574	29
Total Division	2,960	3,899	3,899	3,751	4,008	109
Staffing (FTE)	26	31	31	31	31	-

WATER RESOURCES

WATER RESOURCES

The Water Resources Division implements the Water Authority Board-adopted Water Resources Management Strategy (Strategy) to provide a safe and sustainable water supply. The Strategy provides policies and recommendations for continuation of the need to shift from sole reliance on the aquifer to renewable supplies including the San Juan-Chama Drinking Water Project. The Strategy is designed to ensure Water Authority customers a safe and sustainable water supply at least to 2060. The Strategy incorporates the projects identified to be implemented in the original strategy including the San Juan-Chama Drinking Water Project, North I-25 Non-potable Surface and Industrial Reuse Project, Southside Municipal Effluent Polishing and Reuse project and demonstration project for aquifer storage and recovery.

This Division also oversees the Water Authority's water conservation programs. The long-term water conservation strategy elements implemented to date include an extensive public education and marketing effort, financial incentives for replacement of high volume toilets with low volume toilets, financial incentives for replacing existing high water use landscaping with xeriscaping, financial incentives for replacing high water use washing machines with low use models, and free water use audits. Residential audits include retrofits of showerheads, faucet aerators, and toilet displacement devices. Mandatory water waste prohibitions and limitations on high water use plants in landscaping new development have been enacted and are being enforced.

FY20 WATER RESOURCES OBJECTIVES

- Implement water loss control strategies by targeting real and apparent water losses by conducting an apparent loss forensic analysis and evaluating leak detection survey reports; by the end of the 2nd Quarter of FY20, identify areas of improvement and provide recommendations for reducing water loss.
- Maintain water use at or below 127 gallons per capita per day thru the end of the 4th Quarter of FY20.
- Introduce rebates for organic mulch and flow and moisture sensors by the end of the 2nd Quarter of FY20.
- Develop a program to assist low-income customers with water efficiency efforts by the end of the 2nd Quarter of FY20.
- Utilizing the NM Bureau of Geology and Minerals study, select the next Aquifer Storage and Recovery project and begin permitting studies by the 4th Quarter of FY20.
- Create a new puppet show and coloring book for use in the elementary school education program by the end of the 3rd Quarter of FY20.
- Track and report conservation education outreach to service area customers and meet the following targets: 1) 100 Irrigation Audits; 2) 45 Meetings with Landscapers; 3) 30 Meetings with Property Managers; and 4) 2 Water Conservation Open House Meetings by the end of the 4th Quarter of FY20.
- To better educate children on the importance of water and resource planning, collaborate with ¡Explora! To design interactive water exhibits for the new STEM center which is planned to open in FY21.
- Continue work with the Water Protection Advisory Board through administrative, policy, and technical support through the end of the 4th Quarter of FY20.
- Complete a capture zone analysis for Water Authority wells to identify the area most in need of protection surrounding well heads by the end of the 4th Quarter of FY20.

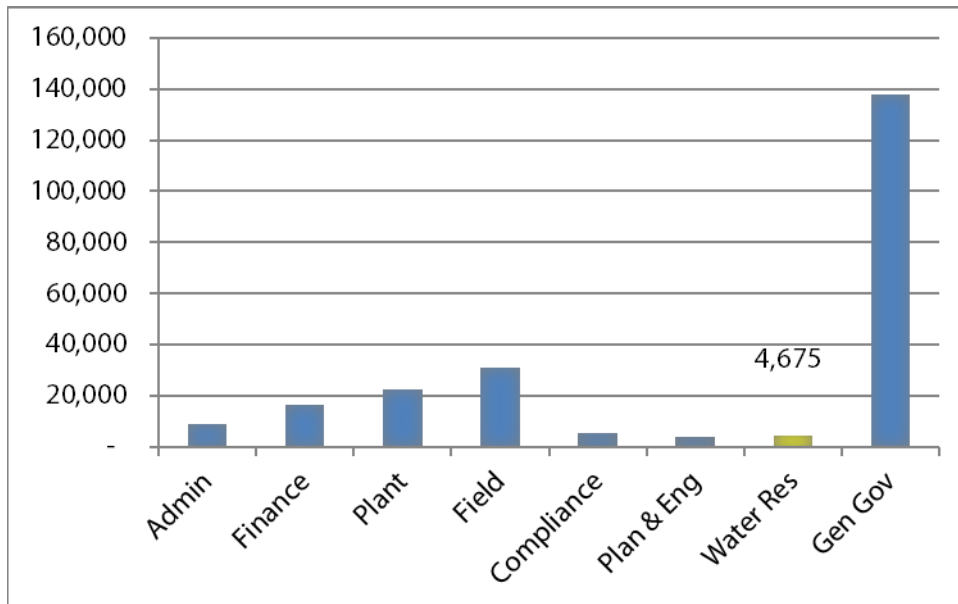
WATER RESOURCES

FY20 WATER RESOURCES HIGHLIGHTS

Water Resources will expand their conservation program by launching the 505Outside website to all customers, develop a program to assist low-income customers with water efficiency efforts, and end the rebates for pressure reduction valves and add rebates for organic mulch and flow and moisture sensors. Education efforts will continue with the design and implementation of a water project to engage high-risk middle school students, partner with Explora on the new STEAM Science Center water exhibits and create a new puppet show and coloring book for the 2019-20 school year. Water

Resources will identify the location and type of the next ASR project and begin well capture zone analysis to identify the areas most in need of protection surrounding well heads. To further environmental goals, Water Resources will fund and collaborate on a study to age larval Rio Grande silvery minnow to tie life history events to hydrologic events, perform maintenance on the La Orilla and Paseo del Norte restoration sites in partnership with CABQ Open Space and fund and participate in the Executive Committee of the Rio Grande Water Fund.

Appropriation by Functional Unit (in \$000's)



WATER RESOURCES

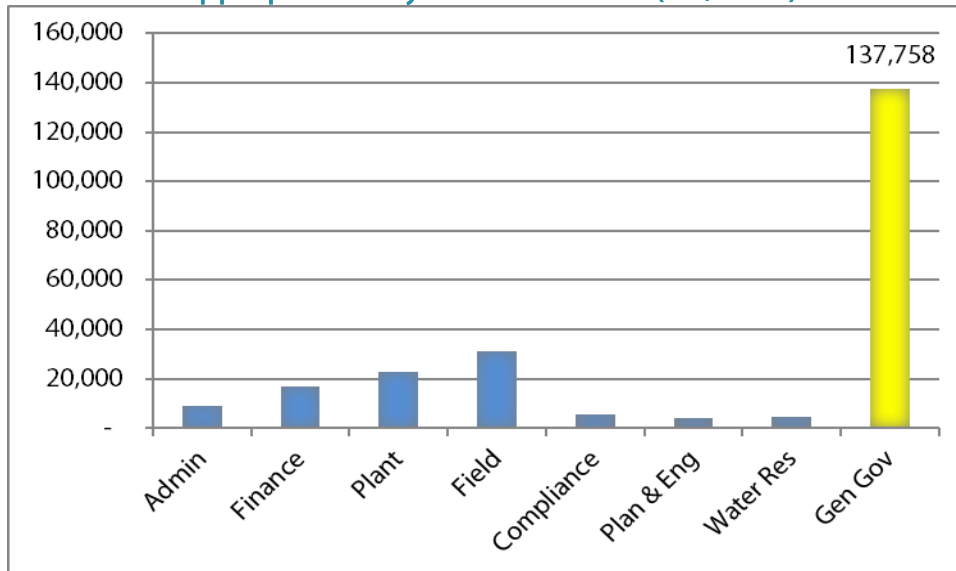
Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Apr 20/ Rev 19 Chg
Water Resources Planning						
Personnel	542	483	502	484	497	(4)
Operating	<u>1,135</u>	<u>1,349</u>	<u>1,049</u>	<u>899</u>	<u>1,380</u>	<u>331</u>
Total	1,677	1,832	1,550	1,383	1,877	327
Conservation						
Personnel	433	471	528	479	577	49
Operating	<u>1,357</u>	<u>1,282</u>	<u>1,577</u>	<u>1,838</u>	<u>1,579</u>	<u>2</u>
Total	1,790	1,753	2,105	2,316	2,156	51
Groundwater Protection						
Personnel	81	177	177	117	185	8
Operating	<u>83</u>	<u>51</u>	<u>72</u>	<u>35</u>	<u>425</u>	<u>353</u>
Total	165	228	249	152	610	361
Arsenic Removal						
Personnel	-	-	-	-	-	-
Operating	<u>-</u>	<u>48</u>	<u>32</u>	<u>-</u>	<u>32</u>	<u>-</u>
Total	-	48	32	-	32	-
Total Division	3,631	3,861	3,936	3,851	4,675	739
Staffing (FTE)	11	11	12	12	12	-

GENERAL GOVERNMENT

GENERAL GOVERNMENT DIVISION

The General Government Division was developed to appropriate the expenses that are Authority-wide and not specific to any one department or division. The departments in this division include: Power & Chemicals, Taxes, Overhead (includes retirement payouts), San Juan-Chama loan, and Interfund Transfers.

Appropriation by Functional Unit (in \$000's)



Expenses by Department (\$000's)	Audited Actual FY18	Original Budget FY19	Revised Budget FY19	Estimated Actual FY19	Approved Budget FY20	Apr 20/ Rev 19 Chg
Power & Chemicals						
Operating	20,566	20,236	19,987	19,986	21,487	1,500
Total	20,566	20,236	19,987	19,986	21,487	1,500
Taxes						
Operating	262	656	656	421	656	-
Total	262	656	656	421	656	-
Overhead						
Personnel	1,301	485	485	748	490	5
Operating	946	925	1,175	1,343	1,349	174
Total	2,247	1,410	1,660	2,091	1,839	179
Total Program	23,076	22,302	22,303	22,499	23,982	1,679
Staffing (FTE)	7	-	-	-	-	-
San Juan Chama						
Operating	2,109	2,247	2,747	2,716	2,747	-
Total	2,109	2,247	2,747	2,716	2,747	-
General Government						
Interfund Transfers	101,158	98,220	98,856	98,856	111,029	12,173
Total Division	126,343	122,769	123,906	124,071	137,758	13,852



CAPITAL BUDGET

*Approved
Operating Budget
FY20*

CAPITAL BUDGET

What are Capital Improvements?

Capital Improvements include the purchase, construction, replacement, addition, or major repair of public facilities, infrastructure, and equipment. The selection and evaluation of capital projects involves analysis of Water Authority requirements, speculation on growth, the ability to make estimates, and the consideration of historical perspectives. A “Capital Project” has a monetary value of at least \$5,000, has a useful life of more than two years, and results in the creation or revitalization of a fixed asset. A capital project is usually relatively large compared to other “capital outlay” items in the annual operating budget.

How are Capital Improvements Funded?

The Water Authority’s Capital program is comprised of different categories of projects, each with its own funding rules. The Basic Program is funded by recurring revenues generated from the water/wastewater rate structure. Special Projects are done outside of the Basic Program but are funded from the same revenue stream that funds the Basic Program. The current Rate Ordinance states that, on average, 50 percent of the cost of capital projects which constitute the normal (Basic) capital program of the water and sewer system shall be paid with cash rather than from borrowed funds.



San Juan-Chama Drinking Water Plant

The balance of capital funding is obtained through revenue bond or loan financing.

The rate structure is designed to provide sufficient revenue to meet the cash requirement and to meet the debt service obligations incurred to finance the remainder of the Basic Program. System growth projects are funded through Utility Expansion Charge (UEC) revenues, either by reimbursing capital investments made under the terms of a Developer Agreement, or by direct appropriation to Water Authority capital projects. UEC revenue is considered cash for purposes of meeting the cash test.

The Water Authority has increased in recent years its utilization of state and federal grants to fund some Capital Improvement Projects in part or in whole.

CAPITAL BUDGET

What is the Capital Improvement Plan (CIP)?

The CIP is a multiyear plan used to identify and coordinate capital needs in a way that maximizes the return to the ratepayers. Advanced planning of all Water Authority projects helps the Board, staff, and public make choices based on rational decision-making, rather than reacting to events as they occur. The CIP represents improvements that are viewed as urgent and can be funded from available revenue and/or reserve sources. The system of CIP management is important because: (1) the consequences of investments and capital improvements extend far into the future; (2) decisions to invest are often irreversible; (3) such decisions significantly influence a community's ability to grow and prosper.

The CIP Process

The development and update of the CIP is an ongoing activity. It is part of the overall budgeting process since current year capital improvements are implemented through adoption of the annual budget. Specific activities in the process are:

- **Establishing Timetables, Goals, and Objectives:**
At the onset of the budgeting process, the CIP update begins with formal budget planning decisions between management and department heads. Timetables are set that extend through development and final adoption of the budget. Water Authority goals and objectives are reviewed to ensure that they are being met through the budget cycle.
- **Taking Inventory and Developing Proposals:**
Staff gathers information about the Water Authority's capital facilities and equipment in order to assess the condition of each. Staff carefully considers construction, repair, replacement, and additions. From there, a list of proposed projects and equipment is developed.
- **Conducting Financial Analysis:** Finance staff conducts financial analysis of historic and projected revenues and expenses in order to estimate the Water Authority's cash flow and long term financial condition.

Capital financing alternatives are identified and recommendations are prepared to match the type of funding most appropriate for specific capital improvements.

The CIP Ten-Year (Decade) Plan

The blueprint for the Water Authority's Basic Program is its Decade Plan, a ten-year capital plan required to be updated biennially in even numbered fiscal years with two, four, six, eight and ten year planning elements. The Decade Plan includes detailed requirements for program development and project scope, schedule, budget, justification and alternatives. The Decade Plan requires approval by the Water Authority Board with at least one public hearing and due deliberation. In those fiscal years where the Decade Plan must be updated, the new Decade Plan must be approved by the Water Authority's Board before that year's Capital Program budget can be approved. This policy ensures there is always an approved two-year planning element in place for every approved annual Basic Program budget. FY20 is the first year of the two-year planning element included in the FY20 – FY29 Decade Plan approved by the Board in June 2019.

The full plan is available to view on the Water Authority's website at the following link: <http://www.abcwua.org/Finances.aspx>

Operating Cost/Saving Impacts

The potential operating cost/saving impacts of the projects are listed on the Project Summary Sheets in the FY20 – FY29 Decade Plan.

Demonstrated on the following page is the planned funding allocation by category for a ten-year period in (\$000's).

Ref. No.	Project Description	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Basic Programs (in thousands)													
100	Sewer Pipelines	1,900	9,525	11,000	15,000	17,720	19,170	20,470	20,400	21,690	21,690	21,690	180,255
200	Water Pipelines	-	6,150	6,050	9,850	9,750	11,350	26,250	24,250	27,250	27,250	27,250	175,400
300	SWRP	2,600	23,220	23,340	20,930	18,730	13,230	13,080	18,150	13,860	13,860	13,860	174,860
400	SAF	-	50	50	50	50	50	50	50	50	50	50	500
500	Lift & Vacuum Stations	6,000	2,950	3,205	1,765	1,300	1,300	1,300	1,300	1,300	1,300	1,300	23,020
600	Odor Control Facilities	-	250	250	250	250	250	250	250	250	250	250	2,500
700	DWP: GW	-	4,775	8,125	7,700	11,370	18,120	5,070	5,070	5,070	5,070	5,070	75,440
800	DWP: Treat	-	1,750	3,900	3,375	2,750	1,450	1,450	1,450	1,450	1,450	1,450	20,475
900	Reuse	-	150	150	150	150	150	150	150	150	150	150	1,500
1000	Compliance	-	390	390	390	390	390	390	390	390	390	390	3,900
1100	Shared Renewal	-	390	40	40	40	40	40	40	40	40	40	750
1200	Franch. Fee	-	3,950	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	35,450
1300	Vehicles & Equip.	-	4,450	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	13,450
BASIC PROGRAM TOTAL		10,500	58,000	61,000	64,000	67,000	70,000	73,000	76,000	76,000	76,000	76,000	707,500
Water 2120 Projects													
8000	Water 2120	2,250	300	300	300	300	300	300	300	300	300	300	5,250
WATER 2120 TOTAL		2,250	300	300	300	300	300	300	300	300	300	300	5,250
Special Projects													
9400	Special Projects	16,471	7,954	5,050	3,350	3,350	3,350	3,350	3,350	3,350	3,350	3,350	56,275
SPECIAL PROJECTS TOTAL		16,471	7,954	5,050	3,350	3,350	3,350	3,350	3,350	3,350	3,350	3,350	56,275
Growth Projects													
2400	Land/Easment Acquisition	-	500	500	500	500	500	500	500	500	500	500	5,000
2700	Development Agreements	-	940	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	13,900
2800	MIS/GIS	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
3100	Master Plans	-	500	-	-	-	-	-	-	-	-	-	500
3200	Miscellaneous	-	60	60	60	60	60	60	60	60	60	60	600
GROWTH PROJECTS TOTAL		-	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	40,000
GRAND TOTAL		29,221	70,254	70,350	71,650	74,650	77,650	80,650	83,650	83,650	83,650	83,650	809,025

CAPITAL BUDGET



FY20 Water Authority Capital Improvement Program Budget

The FY20 capital program appropriation totals \$68.3 million. \$58.0 million is appropriated for the level one priority basic capital programs, \$4.0 million for growth related projects, \$6.0 million for special projects, and \$0.3 million from the Water Supply Charge revenue.

The \$6.0 million for special projects is comprised of \$2.0 million for the Automated Meter Infrastructure (AMI), \$1.0 million for steel water line replacement, \$0.4 million for various renewable energy projects and \$2.6 million for the Los Padillas Water System. There are no appropriations in the proposed FY20 CIP budget for projects that will be funded with revenues from FY21 or later.

Demonstrated in the table and charts on the following page, are planned improvements listing of all the Level 1 priority renewal projects, special projects, and growth-related projects.

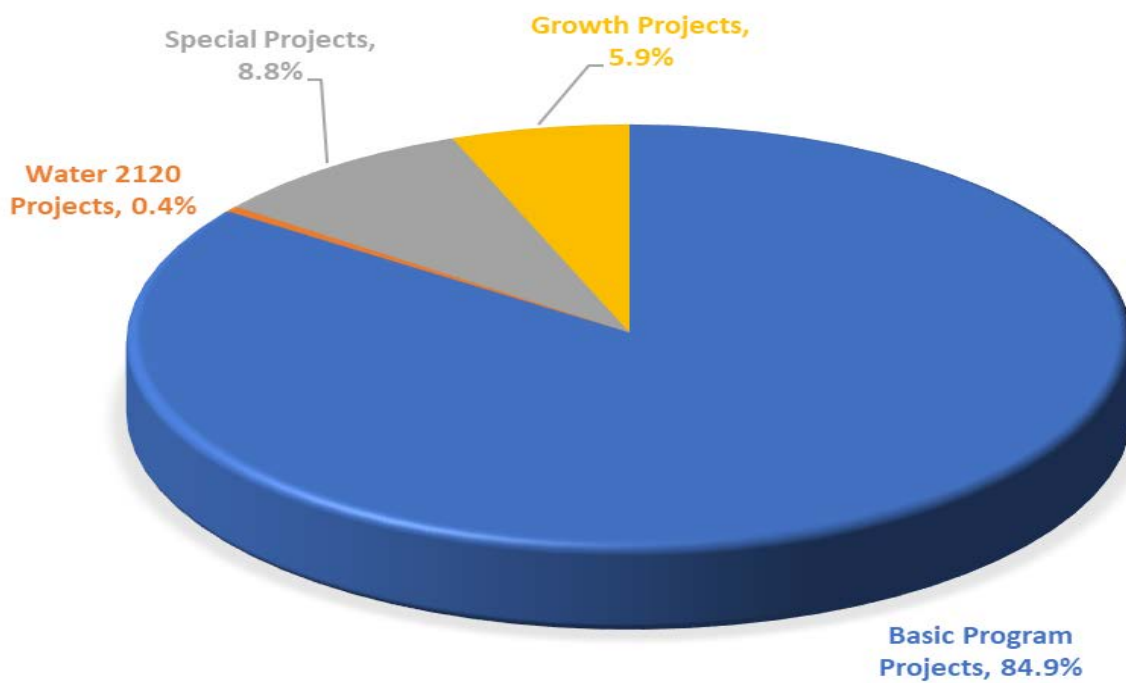
Project Description	FY17 ACTUAL	FY18 ACTUAL	FY19 BUDGET	FY20 BUDGET
Basic Program Appropriations:				
Sanitary Sewer Pipelines	10,726	10,782	7,995	9,525
Drinking Water Pipelines	9,915	7,432	7,550	6,150
Southside Water reclamation Plant	33,227	34,197	34,370	23,220
Soil Amendment Facility (SAF)	11	501	100	50
Lift/Vacuum Station	1,735	2,419	3,150	2,950
Odor Control Facilites	241	567	750	250
Drinking Water Plant - Groundwater	4,744	4,036	4,695	4,775
Drinking Water Plant - Treatment	1,717	1,079	4,910	1,750
Reuse Line and Plant	163	169	70	150
Compliance	188	514	195	390
Shared Renewal	899	1,003	15	390
Franchise Agreement Compliance	3,126	3,996	2,000	3,950
Vehicles/Heavy Equipment	921	3,341	4,818	4,450
BASIC PROGRAM TOTAL	67,613	70,036	70,618	58,000

CAPITAL BUDGET

Project Description	FY17 ACTUAL	FY18 ACTUAL	FY19 BUDGET	FY20 BUDGET
Water 2120 Projects Appropriations:				
Water 2120	389	24	300	300
WATER 2120 PROJECTS TOTAL	389	24	300	300
Special Projects Appropriations:				
Steel Water Line Rehab	-	1,000	1,000	1,000
Automated Meter Infrastructure (AMI)	2,026	1,079	2,000	2,000
Renewable Energy Projects	199	114	350	350
Fluoride Equipment	-	32	-	-
San Juan-Chama Drinking Water Proje	4	-	-	-
San Juan-Chama Mitigation	278	328	-	-
SunGard ERP Project	106	1	-	-
Issuance Costs	710	-	-	-
NMED Grant SAP 14 1600 STB	92	18	-	-
Magnesium Hydro Project	38	27	-	-
Yucca and Central Odor Control	4,465	1,059	-	-
State of NM Capital Outlay Grants	-	-	-	2,691
Miscellaneous	783	3,338	5,000	-
SPECIAL PROJECTS TOTAL	8,701	6,996	8,350	6,041
Growth Projects Appropriations:				
Drinking Water Plant Facilities Growth	234	3,521	-	-
Land/Easment Acquisition	-	30	-	500
Water Rights & Storage	22	19	-	-
Development Agreements	214	331	1,250	940
MIS/GIS	2,738	3,378	3,500	2,000
Master Plans	118	205	-	500
Miscellaneous	60	3	250	60
GROWTH PROJECTS TOTAL	3,386	7,487	5,000	4,000
	80,089	84,543	84,268	68,341

CAPITAL BUDGET

Demonstrated in the graph below is the overall percentage of each Capital Improvements Project category:



CAPITAL BUDGET

Capital Improvement Project Descriptions for Basic Programs

100 – Sanitary Sewer Pipeline Renewal (\$9,525,000) this program provides funding for evaluation, planning, design, construction, and related activity necessary for sanitary sewer interceptor rehabilitation or complete removal and replacement of severely deteriorated sewer interceptor lines that are beyond feasible rehabilitation.

200 – Drinking Water Pipeline Renewal (\$6,150,000) this program provides funding for evaluation, planning, design, and construction, and related activity necessary for the rehabilitation or replacement of water lines that have deteriorated and are past their useful life. There are over 2,000 miles of small diameter (4-inch to 10-inch) water lines that serve as the distribution network for the Water Authority's water system. These lines are used to provide domestic metered water service, fire protection, and irrigation uses for our customers. Currently there is over 500-miles of pipe that is deficient either in wall integrity or size that poses potential threats to the utility. As older steel or cast iron lines become deficient, the Water Authority will often respond to numerous leaks. These leaks, if gone unnoticed, have the potential, under certain circumstances, to become sinkholes which destroy entire roadways and could create a liability for the Water Authority.



300 – Southside Water Reclamation Plant Renewal (\$23,220,000) the Solids Dewatering Facility (SDF) removes water from all the plant's

sludge prior to transport to the Soils Amendment Facility (SAF) for disposal. The existing SDF has been in use for over 25 years and requires renewal. During FY15, an evaluation was completed to determine if it would be more cost effective in terms of life-cycle costs to rehab the existing SDF or construct a brand new facility. The results of this evaluation determined that a rehab alternative is the most efficient and cost effective method in moving forward with this project. Funding will be used to design and construct improvements to the SDF. The improvements will provide a safer work environment, better and more reliable solids dewatering performance.

Existing Solids Dewatering Facility



400 – Soil Amendment Facility (SAF) Renewal (\$50,000) The SAF is an important element in the Water Authority's wastewater treatment systems. The Southside Water Reclamation Plant (SWRP) generates approximately 60 tons of solids per day. The solids are land applied and composed of at the SAF. The composed solids are sold and generate income for the Water Authority. Without the SAF, the Water Authority would have to pay to dispose of the solids in a landfill. Funding allows for rehabilitation of the existing fixed equipment and facilities at the SAF. This includes buildings, pumping systems, and grounds.

CAPITAL BUDGET

500 – Lift Station and Vacuum Station Renewal (\$2,950,000) This project provides funding for the planning, design, engineering services, contract and/or in-house service related to general lift stations. The Water Authority owns, operates, and maintains vacuum networks of vacuum sewers, which provide service to residences, businesses, and other facilities in the North and South Valleys. The sanitary sewage is drawn to ten vacuum stations. From there it is pumped through force mains to connections to the Water Authority's gravity flow sewer system and then conveyed from treatment at the Southside Water Reclamation Plant (SWRP). Funding for vacuum stations will be used for house pumps, tanks, and other equipment used to collect and convey the sanitary sewage. This will help maintain the level of service by the customers.

Lift Station #20 Force Main Header



Vacuum Station 66



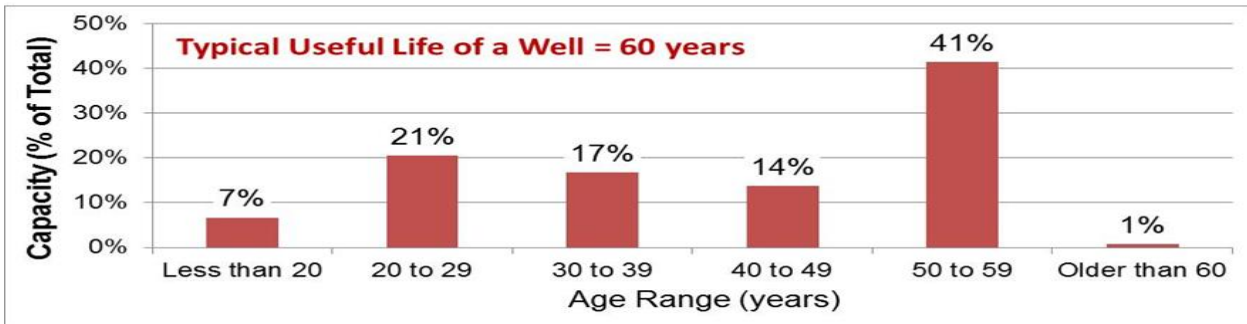
600 – Odor Control Facilities Renewal (\$250,000) This project provides funding for evaluation, planning, design, construction, and related activity necessary for odor control in the collection system. Hydrogen sulfide is the primary gas that causes offensive odors from the sewer system. These gases are naturally generated through biological activity in the sewer. Larger sewers, known as interceptors, are the primary odor generators in the collection pipe system and the primary focus for funding is controlling interceptor odors. Funding will also be used to address collection system odors from all sources including small diameter pipes, pump stations, and manholes.

700 – Drinking Water Plant - Groundwater (\$4,775,000) The Water Authority must maintain a full capacity groundwater supply system even with the San Juan - Chama Drinking Water Project. At times, river water may not be available for diversion, so the Water Authority will have to rely fully on its wells to provide groundwater for delivery to customers. Also, the wells are needed to provide peak capacity during the high demand periods of the year (i.e., warm weather months).

Demonstrated on the next page shows over 40 percent of the Water Authority's wells are older than 50 years. These wells should be replaced in the next decade. Sixty years is the typical maximum life of a well before it needs to be replaced. Some wells fail sooner than this and some last longer.

This multiyear funding will be used to hire a consultant to advise the Water Authority on where to locate replacement wells and to start well replacements. An approximate cost for a replacement well is \$2 million. The level of funding shown is anticipated to allow for approximately 12 well replacements. As more funding becomes available, the rate of well replacement will be increased. Funding is also provided to continue the evaluation of the Alameda Trunk Arsenic Project for delivering water from wells in the Alameda Trunk and adjacent Montgomery trunk to the San Juan Chama Water Treatment Plant for arsenic removal.

CAPITAL BUDGET



Also, there are three arsenic removal treatment systems in the Corrales area Trunk. This system use granular ferric hydroxide media, which requires periodic replacement. Funding will be used to replace the arsenic removal media from the different pressure vessels. This is necessary to restore the ability of these systems to remove arsenic from the well water prior to distributing the water to Water Authority customers. Without periodic replacement, the treated water arsenic level would exceed the federal and state drinking water maximum contaminant level of 10 parts per billion (ppb).

Granular ferric hydroxide arsenic removal media



800 – Drinking Water Plant - Treatment (\$1,750,000) This project is to provide funding for improvements to the bar screens at the San Juan Chama Water Project Diversion Structure.

The manual bar screens are designed to remove sticks and other debris from the water being withdrawn from the Rio Grande prior to pumping it to the San Juan Chama Water Treatment Plant. Currently, the bar screens have to be manually cleaned up to three times per day by the plant maintenance staff, although the screens were not actually designed to accommodate this type of cleaning. Therefore, the manual cleaning operation takes important operator time and effort to perform these duties when other more important duties may be needed. As the SJCWTP is used at higher flow rates, the clogging problems will be increased due to higher flow rates and more flow volume per day.

The funding is intended to hire a design consultant to evaluate the problems and make recommendations for design changes. It is anticipated that it will be necessary to retrofit the facility with mechanical bar screen cleaning equipment. The estimated cost of constructing the improvements will be developed as part of the

CAPITAL BUDGET

consultant's work. There is a positive impact on operating costs by decreasing the labor hours needed to manually clean the bar screens.

900 – Reuse Line and Plant Rehab (\$150,000)

This project is to provide funding for general renewal of reclaimed (recycled) water field and plant assets, including pipelines, buried valves, treatment facilities, pumping stations, and storage reservoirs. Using reclaimed water reduces demand on the Water Authority's potable water system. These expenses will be offset by revenues from non-potable water sales.

1000 – Compliance (\$390,000) This project is to provide funding for renewal of laboratory equipment at the Water Authority's Water Quality Lab. The Water Quality Lab supports the operation of the Southside Water Reclamation Plant and the drinking water system. In order to maintain the capability for scientifically valid and reliable monitoring and analysis, deteriorating analytical instruments must be replaced when performance degrades to a level that compromises data quality.

Funding will also provide for rehabilitation of equipment, facilities, and computer software used by staff for compliance with the National Pollutant Discharge Elimination System (NPDES) Program and for the Drinking Water Quality Program.

1200 – Franchise Agreement Compliance (\$3,950,000) This project provides funding for compliance with the Water Authority's Franchise Ordinance between the City of Albuquerque and the Water Authority within the municipal limits of the service area. This is used for relocating water and sanitary sewer pipelines and for adjusting the

height of manholes and valve boxes as part of street resurfacing projects.

24" Concrete Cylinder Water Line



1300 – Vehicles and Heavy Equipment (\$4,450,000)

The Water Authority has over 2,400 miles of sewer pipes that are used to convey sanitary sewage to the Southside Water Reclamation Plant (SWRP). Field heavy equipment is used daily to clean different sections of the collection system. Work is primarily done with the use of Vactor (vacuum cleaning) trucks. The Water Authority has a fleet of 12 trucks. Funding will allow renewal of the fleet and their associated accessories. There is a projected positive impact on maintenance operating costs by replacing these units with more efficient equipment.

Sewer Cleaning Truck (Vactor)



CAPITAL BUDGET

Capital Improvement Project Descriptions for Special Projects

9401 – Steel Waterline Rehab (\$1,000,000)

There are over 60 miles of small diameter steel water lines (12" and less) that serve the Water Authority distribution system. These lines are among the small diameter water lines that provide metered water service, fire protection, and irrigation for customers. Steel lines in general are the oldest water lines (greater than 50 years) and most prone to numerous leaks due to deterioration and corrosion of the thin steel wall.

Steel line leakage is highly problematic, with water waste and repeated repairs causing disruption of service and traffic. Undetected leakage can be catastrophic: a sinkhole can destroy an entire roadway segment. Or a leak can surface as a geyser, with resulting projectiles causing extensive damage and/or threat to life. Finding the lines that have the highest leak potential and replacing them prior to catastrophic failure is essential to reducing the Authority's exposure to life- and property-threatening risk.

This program provides funding for evaluation, planning, design, construction, and related activity necessary for the rehabilitation or replacement of steel water lines which tend to be the oldest water lines in the system and typically past their useful life. Operating costs are expected to decrease due to fewer leak repairs.

Corroded Steel Pipe

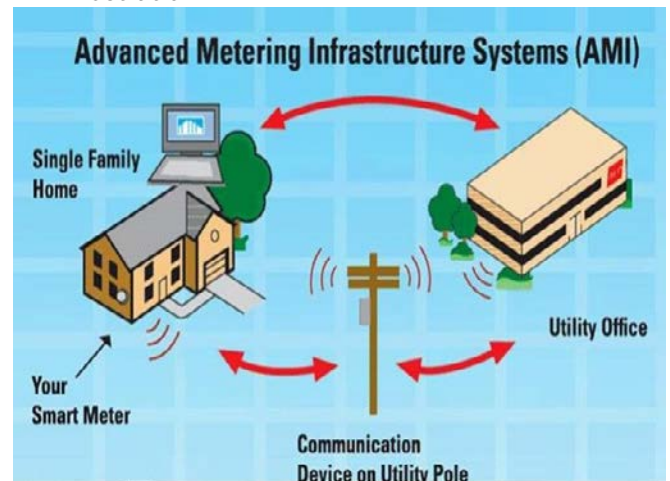


9403 – Automated Meter Infrastructure (AMI) (\$2,000,000) This project funds replacement of existing revenue meters with AMI equipped "smart" meters and the infrastructure needed to capture meter reading information. AMI utilizes a fixed communication infrastructure of licensed or unlicensed radio frequency (RF) technology to transmit daily or more frequent meter reads from the meter to the utility. No personnel are required to leave the utility offices to acquire meter reads. AMI offers enhanced functionality and customer benefits including of off-cycle reads along with all associated field visits. Benefits from the access to increased customer usage information (interval usage at a minimum of four reads per day) includes tamper/theft detection, flow profiling, meter right sizing and leak detections on a meter by meter basis or system-wide level.

Funding provides for the planning, design, engineering services, construction, contract services, equipment and related activities necessary to provide Automated Meter Infrastructure (AMI) throughout the water service area, including meter replacements, as appropriate.

There is a projected positive impact on maintenance operating costs by replacing revenue meters with Automated Meter Infrastructure.

AMI Illustration



CAPITAL BUDGET

9404 – Renewable Energy Projects (\$350,000)

The Water Authority needs to become less reliant upon non-renewable energy supplies such as fossil fuel generated electricity and natural gas. Recently, the Water Authority started up a solar array project at the Southside Water Reclamation Plant (SWRP) to generate electricity. The SWRP continues to use biogas for generating electricity to power the plant. Excess power is sold to Public Service Company of New Mexico (PNM). More projects such as these are needed to allow the utility to become more sustainable and more energy efficient so as to reduce its reliance on generated electrical energy. This effort will reduce operational costs and make the utility more sustainable.

This funding will allow for the evaluation and implementation of additional renewable power projects such as enhancing biogas production at the SWRP to allow more electrical energy generation. Also, energy efficiency projects such as the use of light emitting diode (LED) lighting at Water Authority facilities can be pursued to lower the utilities total power needs to be provided by non-renewable supplies. This will create a positive impact on operating costs related to maintenance and electrical costs.

CAPITAL BUDGET

Capital Improvement Project Descriptions for Growth Projects

2700– Development Agreements (\$940,000) In accordance with sound utility practice, the Water Authority requires developers of new service into undeveloped areas to construct the necessary major facilities. We then agree to reimburse the developer using funds from Utility Expansion Charges (UECs) as connections are made to those facilities. This causes the developer (not the current ratepayers) to assume the market risk for constructing major new facilities. One example of facilities built by a developer include the new Otto Reservoir within the Westland/ Suncal development area. Similar agreements are in force and planned in other surrounding areas. Includes Mesa Del Sol, Suncal, Don Reservoir, Volcano Cliffs, Alameda Trunk and NM Utilities, Inc.

This project provides for reimbursement of developer expenses to construct major facilities as the capacity of those facilities is utilized by development. This reflects funding from new customer UECs for reimbursement under development agreements for extending master plan infrastructure beyond existing serviceable areas and are subject to Water Authority approval.

New 6-inch Waterline Installation



2800– Management Information Systems and Geographical Information Systems (MIS/GIS) (\$2,000,000) This project encompasses primarily new technology initiatives and the upgrade of hardware/software which is either approaching end-of-life or is unsupported by the vendor. Hardware life span is estimated between 3-5 years; with software life span of a current release level can range from 6 months to 2 years. As technology continues to increase in its support of business operations, it is critical to maintain its currency.

Servers and Databases (New and Upgrades):

This category covers servers that house all software applications and the databases that support those applications. Applications include CC&B, Maximo, Kronos, LIMS and GIS, among others. Databases include Oracle and SQL Server and some that are no longer supported. It also includes networking equipment.

Applications (New and Upgrades):

This category covers the purchase and upgrades of new software, both enterprise-wide and division specific. Examples include: CC&B, Maximo, SharePoint, LIMS, H2O Water Waste, and Kronos. On average, 2-4 service packs (including several patches) are released each year, with major releases occurring every 1-3 years.

Client Services (New and Upgrades):

This category covers hardware and software at the clients desktop. It includes the ongoing upgrade of desktop computers, monitors, keyboards, etc. and the upgrades of Windows operating systems and Microsoft software. It also includes the purchase of new desktop equipment and software.

Geographic Information Systems (GIS – New and Upgrades):

This category represents all purchases done within the GIS environment to include new software and software. It includes the purchase of GIS-related software for Maximo and mobile devices, including vehicle tracking.

Mobile, Security and Telecommunications (New and Upgrades):

This new category addresses the mobile, security and telecommunications environment to include portable devices, phones, vehicle location

CAPITAL BUDGET

devices, radios, security cameras, etc. It is expected that category will expand over the coming years due to the advancement of mobile, security and telecommunications technology. The majority of items listed either provide for continual efficient running and backups of mission critical systems (CC&B, Maximo, Kronos, LIMS, GIS, Security) or provide ongoing improvements to overall operations to improve efficiencies and lower operational costs.



3100– Master Plans (\$500,000) The Water Authority is conducting a comprehensive and ongoing integrated resource master planning for all water, wastewater and non-potable water reuse supply, distribution, and treatment facilities. This planning effort will examine levels of service, service areas and resource commitments, as well as, identify future facilities, master plan line and service requirements across the Water Authority's service area.

Sound utility management requires having a well-developed and adopted plan for delivering service. The latest adopted Master Plans for water and sewer were developed in the late 1970's. Since then many assumptions upon which they were developed have changed drastically. Widespread effects of conservation have reduced flows in water and sewer lines. That is beneficial by making more capacity available, but this results in longer fluid residence times causing quality concerns in water lines and additional odor potentials in sewers. The Water Authority is being pressed to provide service into new areas that will be assessed in this planning work. Good facility master planning is needed to wisely meet the needs of present and future ratepayers.

This funding will be used to complete the development of a new Comprehensive Master

Plan. There is no quantifiable impact on operating costs.

3200– Miscellaneous Growth (\$60,000) The Water Authority has set aside funds to assist low income residents in obtaining basic sanitation and clean water services. This program is targeted for low income residents who are currently using septic tanks for wastewater and wells for drinking water, but who have not connect to available Water Authority service due to cost. The Water Authority will supplement up to 2/3rds of the cost for connection to the system.

This project provides funding for the cost of utility expansion for low income customers who meet established criteria. There is no projected impact on operating costs.





DEBT OBLIGATIONS

*Approved
Operating Budget
FY20*

DEBT OBLIGATIONS

The joint water and wastewater system (the “Water/Wastewater System”) was owned by the City of Albuquerque, New Mexico (the “City”) and operated by its Public Works Department until December 17, 2003. Revenue bond debt relating to the Water/Wastewater System continues to be outstanding. In 2003, the New Mexico Legislature adopted Laws 2003, Chapter 437 (Section 72-1-10, NMSA 1978) which created the Albuquerque Bernalillo County Water Utility Authority (the “Water Authority”) and provided that all functions, appropriations, money, records, equipment and other real and personal property pertaining to the Water/Wastewater System would be transferred to the Water Authority. The legislation also provides that the debts of the City, payable from net revenues of the Water/Wastewater System, shall be debts of the Water Authority and that the Water Authority shall not impair the rights of holders of outstanding debts of the Water/Wastewater System. The legislation also required that the New Mexico Public Regulation Commission audit the Water/Wastewater System prior to the transfer of money, assets and debts of the Water/Wastewater System; the audit was completed December 2003. The policy-making functions of the Water/Wastewater System have been transferred to the Water Authority. The Water Authority and the City entered into a Memorandum of Understanding dated January 21, 2004, as amended April 7, 2004, under which the City continued to operate the Water/Wastewater System until June 30, 2007. In 2005, the New Mexico Legislature amended Section 7-1-10, NMSA 1978, to provide the Water Authority the statutory powers provided to all public water and wastewater utilities in the state and to recognize the Water Authority as a political subdivision of the State. On March 21, 2007 the Water Authority and City entered into a new MOU effective July 1, 2007. At that time the utility employees transitioned from the City and became employees of the Water Authority.

The outstanding Water/Wastewater System parity obligations are currently rated “Aa2” by Moody’s, “AAA” by S&P and “AA” by Fitch.

The total outstanding obligation indebtedness of the Water Authority as of July 1, 2019 is \$580.976 million shown in the table on the next page.

DEBT OBLIGATIONS

FY20 DEBT SERVICE PAYMENTS

Ratings: Aa2/AAA/AA

Issue	Basic Capital Bonds		San Juan-Chama Debt		New Mexico Finance Authority		Total Issue
	Principal	Interest	Principal	Interest	Principal	Interest	
Bonds Series 2009A-1 Basic	5,650,000.00	130,000.00					5,780,000.00
Bonds Series 2009A-1 NMU	1,910,000.00	47,750.00					1,957,750.00
Bonds Series 2009A-1 SJC			215,000.00	5,375.00			220,375.00
Bonds Series 2009A-1 SWRP	620,000.00	15,500.00					635,500.00
Bonds Series 2013A Basic	4,120,000.00	2,207,500.00					6,327,500.00
Bonds Series 2013B	5,320,000.00	1,290,750.00					6,610,750.00
Bonds Series 2014A	8,640,000.00	3,576,412.50					12,216,412.50
Bonds Series 2014B	8,205,000.00	2,639,725.00					10,844,725.00
Bonds Series 2015	12,615,000.00	8,491,972.50					21,106,972.50
Bonds Series 2017	4,040,000.00	4,008,193.76					8,048,193.76
Bonds Series 2018	0.00	3,754,250.00					3,754,250.00
NMFA Loan No. 04 1727-AD					523,565.00	127,454.86	651,019.86
NMFA Loan No. 07 2316-ADW					48,691.00	6,480.52	55,171.52
NMFA Loan No. 15 Basic					3,620,000.00	780,000.00	4,400,000.00
NMFA Loan No. 15 Reuse					340,357.60	392,930.10	733,287.70
NMFA Loan No. 15 SJC					159,642.40	184,301.14	343,943.54
NMFA Loan DW4200					0.00	10,100.00	10,100.00
NMFA Loan DW4202					0.00	625.00	625.00
NMFA Loan DW4877					0.00	43,986.00	43,986.00
TOTAL	<u>51,120,000.00</u>	<u>26,162,053.76</u>	<u>215,000.00</u>	<u>5,375.00</u>	<u>4,692,256.00</u>	<u>1,545,877.62</u>	<u>83,740,562.38</u>

SCHEDULE OF BONDS & OTHER DEBT OBLIGATIONS

SENIOR DEBT OBLIGATIONS	Original	Outstanding	Basic Needs	Special Projects
Bonds Series 2009A-1	135,990,000	16,410,000	11,050,000	5,360,000
Bonds Series 2013A	62,950,000	42,090,000	42,090,000	
Bonds Series 2013B	55,265,000	23,155,000	23,155,000	
Bonds Series 2014A	97,270,000	71,355,000	71,355,000	
Bonds Series 2015	211,940,000	184,095,000	184,095,000	
Bonds Series 2017	87,970,000	80,050,000	80,050,000	
Bonds Series 2018	75,085,000	75,085,000	75,085,000	
NMFA Loan No. 07 2316-ADW	1,000,000	623,706		623,706
NMFA Loan No. 15	53,400,000	28,200,000	15,600,000	12,600,000
NMFA Loan DW4200		505,000		505,000
NMFA Loan DW4202		250,000		250,000
NMFA Loan DW4877		2,124,282		2,124,282
SUBTOTAL WATER AUTHORITY SENIOR DEBT OBLIGATIONS	\$ 780,870,000	\$523,942,988	\$ 502,480,000	\$ 21,462,988
SUBORDINATE DEBT OBLIGATIONS	Original	Outstanding	Basic Needs	Special Projects
Bonds Series 2014B	87,005,000	50,660,000	50,660,000	
NMFA Loan No. 04 1727-AD	10,426,232	6,372,743		6,372,743
SUBTOTAL SUBORDINATE DEBT OBLIGATIONS	\$ 97,431,232	\$ 57,032,743	\$ 50,660,000	\$ 6,372,743
GRAND TOTAL - WATER AUTHORITY DEBT OBLIGATIONS	<u>\$ 878,301,232</u>	<u>\$580,975,731</u>	<u>\$ 553,140,000</u>	<u>\$ 27,835,731</u>

DEBT OBLIGATIONS

Albuquerque Bernalillo County Water Utility Authority - Senior Lien Debt (Principal and Interest)

Fiscal Year	Series 2009A-1 Bonds	Series 2013A Bonds	Series 2013B Refunding	Series 2014A Bonds	Series 2015 Bonds	Series 2017 Bonds	Series 2018 Bonds
2020	8,593,625	6,327,500	6,610,750	12,216,413	21,106,973	8,048,194	3,754,250
2021		6,321,375	6,651,875	12,183,413	23,986,223	8,046,069	8,907,125
2022		6,314,750	6,706,500	12,136,038	24,311,348	8,038,569	8,901,250
2023		6,312,000	6,748,750	12,236,456	17,987,223	8,035,194	8,891,875
2024		6,302,625	2,980,750	12,182,375	22,087,723	8,025,444	8,888,250
2025		6,296,125	2,480,500	12,164,750	21,920,973	8,023,694	8,879,625
2026		6,291,750		12,082,375	19,336,348	8,014,319	8,870,375
2027		1,330,875		10,461,375	20,866,723	8,006,819	8,859,750
2028		1,329,250			21,042,446	8,000,444	8,851,875
2029		1,330,750			12,990,008	7,994,444	8,845,750
2030		1,330,250			12,981,050	7,988,069	13,135,500
2031		1,327,750			8,245,640	5,947,694	8,825,250
2032		1,328,125			8,181,775	5,940,194	
2033		1,326,250			8,172,900	5,930,444	
2034		1,322,125			8,195,700	5,927,694	
2035		1,320,625				5,963,972	
2036		1,321,500					
2037		1,319,625					
2038		1,319,875					
2039		1,317,125					
2040							
TOTAL	<u>8,593,625</u>	<u>61,390,250</u>	<u>32,179,125</u>	<u>95,663,194</u>	<u>251,413,049</u>	<u>117,931,253</u>	<u>105,610,875</u>

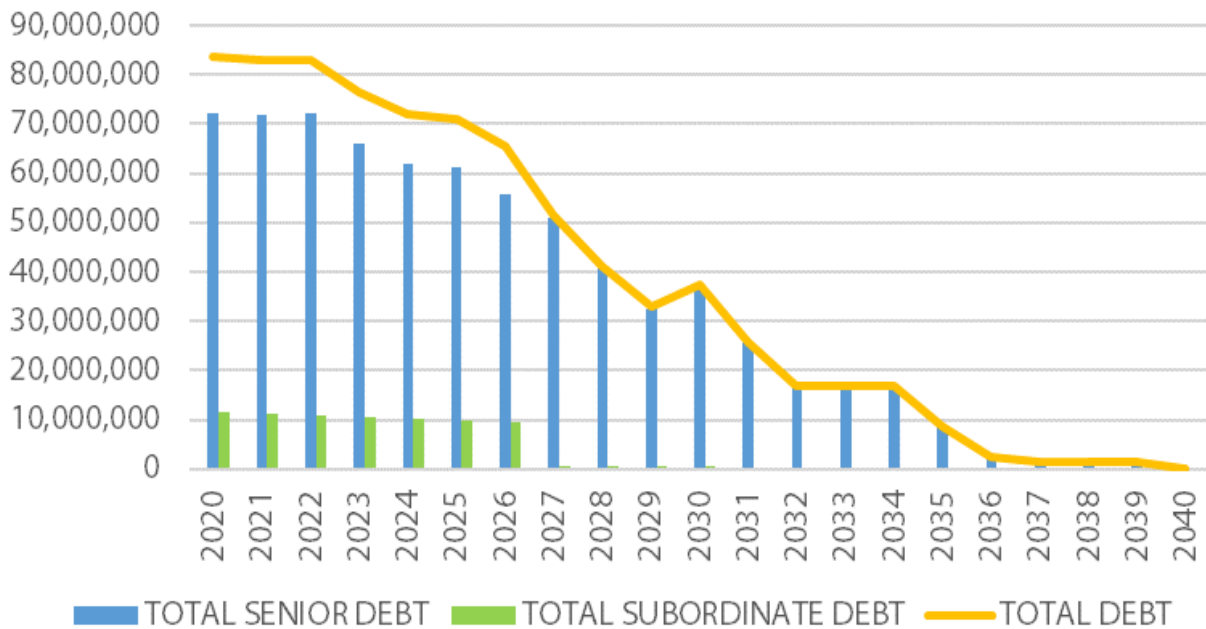
Fiscal Year	Loan No. 07 2316-ADW NMFA	Loan No. 15 NMFA	Loan DW4200 NMFA	Loan DW4202 NMFA	Loan DW4877 NMFA	TOTAL SENIOR DEBT
2020	55,172	5,477,231	10,100	625	43,986	72,244,817
2021	55,169	5,476,231	30,884	12,831	157,230	71,828,424
2022	55,167	5,474,981	30,884	12,830	159,212	72,141,528
2023	55,165	5,477,981	30,884	12,831	161,233	65,949,591
2024	55,162	1,074,481	30,884	12,830	163,294	61,803,817
2025	55,159	1,074,231	30,884	12,830	165,398	61,104,169
2026	55,157	1,077,481	30,884	12,831	167,542	55,939,061
2027	55,155	1,079,031	30,884	12,831	167,730	50,871,171
2028	55,152	1,074,281	30,884	12,831	167,729	40,564,892
2029	55,149	1,077,094	30,884	12,831	167,729	32,504,638
2030	55,147	1,074,344	30,884	12,831	167,730	36,775,804
2031	55,143	1,074,844	30,884	12,830	167,729	25,687,765
2032	55,143	1,076,644	30,885	12,831	167,729	16,793,326
2033		1,078,394	30,884	12,831	167,729	16,719,431
2034		1,074,719	30,885	12,830	167,730	16,731,682
2035		1,078,375	30,884	12,831	167,730	8,574,416
2036		1,075,063	30,884	12,831	167,729	2,608,007
2037			30,884	12,831	167,729	1,531,069
2038			30,884	12,831	167,730	1,531,320
2039			30,884	12,831	167,729	1,528,570
2040			30,885	12,831	140,487	184,202
TOTAL	<u>717,039</u>	<u>35,895,406</u>	<u>627,783</u>	<u>257,239</u>	<u>3,338,861</u>	<u>713,617,700</u>

DEBT OBLIGATIONS

Albuquerque Bernalillo County Water Utility Authority - Subordinate Lien Debt (Principal and Interest)

Fiscal Year	Series 2014B Bonds	Loan No. 04 1727-AD NMFA	TOTAL SUB. DEBT	TOTAL DEBT SERVICE
2020	10,844,725	651,020	11,495,745	83,740,562
2021	10,572,475	651,047	11,223,522	83,051,945
2022	10,148,125	651,073	10,799,198	82,940,727
2023	9,931,375	651,100	10,582,475	76,532,066
2024	9,577,875	651,128	10,229,003	72,032,820
2025	9,216,000	651,156	9,867,156	70,971,325
2026	8,850,875	651,185	9,502,060	65,441,122
2027		651,215	651,215	51,522,387
2028		651,245	651,245	41,216,137
2029		651,276	651,276	33,155,915
2030		651,308	651,308	37,427,112
2031				25,687,765
2032				16,793,326
2033				16,719,431
2034				16,731,682
2035				8,574,416
2036				2,608,007
2037				1,531,069
2038				1,531,320
2039				1,528,570
2040				184,202
TOTAL	<u>69,141,450</u>	<u>7,162,754</u>	<u>76,304,204</u>	<u>789,921,904</u>

Debt Service by Fiscal Year





*STATISTICAL
AND
SUPPLEMENTAL INFORMATION*

*Approved
Operating Budget
FY20*

GENERAL FUND – 21 RESOURCES, APPROPRIATIONS, FUND BALANCE

LAST TEN FISCAL YEARS

(000's)	ACTUAL FY09	ACTUAL FY10	ACTUAL FY11	ACTUAL FY12	ACTUAL FY13
RESOURCES:					
Miscellaneous Revenues	2,586	1,562	3,064	2,554	1,188
Enterprise Revenues	121,411	152,148	157,276	175,505	178,942
Transfers from Other Funds	<u>1,516</u>	<u>1,493</u>	<u>1,500</u>	<u>1,745</u>	<u>1,710</u>
Total Current Resources	125,513	155,203	161,840	179,804	181,840
Beginning Working Capital Balance	<u>23,786</u>	<u>16,065</u>	<u>(636)</u>	<u>(10,650)</u>	<u>(10,869)</u>
TOTAL RESOURCES	<u>149,299</u>	<u>171,268</u>	<u>161,204</u>	<u>169,154</u>	<u>170,971</u>
APPROPRIATIONS:					
Enterprise Operations	71,994	89,853	96,243	95,371	102,310
Transfers to Other Funds	<u>57,500</u>	<u>87,538</u>	<u>79,593</u>	<u>82,828</u>	<u>82,177</u>
TOTAL APPROPRIATIONS	<u>129,494</u>	<u>177,391</u>	<u>175,836</u>	<u>178,199</u>	<u>184,487</u>
ADJUSTMENTS TO WORKING CAPITAL BALANCE	<u>(3,740)</u>	<u>5,487</u>	<u>3,982</u>	<u>(1,824)</u>	<u>2,595</u>
ENDING WORKING CAPITAL BALANCE	<u>16,065</u>	<u>(636)</u>	<u>(10,650)</u>	<u>(10,869)</u>	<u>(10,921)</u>

(000's)	ACTUAL FY14	ACTUAL FY15	ACTUAL FY16	ACTUAL FY17	ACTUAL FY18
RESOURCES:					
Miscellaneous Revenues	3,843	4,143	4,873	3,592	4,976
Enterprise Revenues	180,228	190,099	216,208	213,553	223,968
Transfers from Other Funds	<u>593</u>	<u>748</u>	<u>792</u>	<u>793</u>	<u>943</u>
Total Current Resources	184,664	194,990	221,873	217,938	229,887
Beginning Working Capital Balance	<u>(10,921)</u>	<u>(10,676)</u>	<u>(8,722)</u>	<u>6,356</u>	<u>13,667</u>
TOTAL RESOURCES	<u>173,743</u>	<u>184,314</u>	<u>213,151</u>	<u>224,294</u>	<u>243,553</u>
APPROPRIATIONS:					
Enterprise Operations	110,291	109,430	114,039	109,476	110,381
Transfers to Other Funds	<u>76,094</u>	<u>81,160</u>	<u>87,842</u>	<u>91,628</u>	<u>101,158</u>
TOTAL APPROPRIATIONS	<u>186,385</u>	<u>190,590</u>	<u>201,881</u>	<u>201,104</u>	<u>211,539</u>
ADJUSTMENTS TO WORKING CAPITAL BALANCE	<u>1,967</u>	<u>(2,445)</u>	<u>(4,912)</u>	<u>(9,523)</u>	<u>9,190</u>
ENDING WORKING CAPITAL BALANCE	<u>(10,676)</u>	<u>(8,722)</u>	<u>6,356</u>	<u>13,667</u>	<u>41,204</u>

DEBT SERVICE FUND – 31 RESOURCES, APPROPRIATIONS, FUND BALANCE

LAST TEN FISCAL YEARS

(000's)	ACTUAL FY09	ACTUAL FY10	ACTUAL FY11	ACTUAL FY12	ACTUAL FY13
RESOURCES:					
Miscellaneous Revenues	6,668	7,026	6,351	8,142	8,282
Transfers from Other Funds	<u>64,301</u>	<u>67,790</u>	<u>65,337</u>	<u>66,727</u>	<u>66,362</u>
Total Current Resources	70,969	74,816	71,688	74,869	74,644
Beginning Fund Balance	<u>(4,136)</u>	<u>(5,652)</u>	<u>(2,689)</u>	<u>(2,972)</u>	<u>(2,392)</u>
TOTAL RESOURCES	<u>66,833</u>	<u>69,164</u>	<u>68,999</u>	<u>71,897</u>	<u>72,252</u>
APPROPRIATIONS:					
Debt Service	64,301	69,627	65,202	70,450	72,670
Transfers to Other Funds	<u>14,000</u>	<u>5,000</u>	<u>3,000</u>	<u>3,000</u>	<u>3,000</u>
TOTAL APPROPRIATIONS	<u>78,301</u>	<u>74,627</u>	<u>68,202</u>	<u>73,450</u>	<u>75,670</u>
ADJUSTMENTS TO FUND BALANCE	<u>5,816</u>	<u>2,774</u>	<u>(3,769)</u>	<u>(840)</u>	<u>942</u>
ENDING FUND BALANCE	<u>(5,652)</u>	<u>(2,689)</u>	<u>(2,972)</u>	<u>(2,392)</u>	<u>(2,476)</u>

(000's)	ACTUAL FY14	ACTUAL FY15	ACTUAL FY16	ACTUAL FY17	ACTUAL FY18
RESOURCES:					
Miscellaneous Revenues	7,872	7,565	9,257	8,546	10,398
Transfers from Other Funds	<u>72,094</u>	<u>69,160</u>	<u>72,842</u>	<u>70,628</u>	<u>70,908</u>
Total Current Resources	79,966	76,725	82,099	79,174	81,306
Beginning Fund Balance	<u>(2,476)</u>	<u>515</u>	<u>48,798</u>	<u>54,576</u>	<u>52,819</u>
TOTAL RESOURCES	<u>77,490</u>	<u>77,240</u>	<u>130,897</u>	<u>133,750</u>	<u>134,125</u>
APPROPRIATIONS:					
Debt Service	75,245	35,203	71,906	75,747	70,189
Transfers to Other Funds	<u>3,000</u>	<u>5,000</u>	<u>5,000</u>	<u>4,474</u>	<u>6,000</u>
TOTAL APPROPRIATIONS	<u>78,245</u>	<u>40,203</u>	<u>76,906</u>	<u>80,221</u>	<u>76,189</u>
ADJUSTMENTS TO FUND BALANCE	<u>1,269</u>	<u>11,760</u>	<u>586</u>	<u>(710)</u>	<u>(1,516)</u>
ENDING FUND BALANCE	<u>515</u>	<u>48,798</u>	<u>54,576</u>	<u>52,819</u>	<u>56,420</u>

WATER USERS BY CLASS AND METER SIZE

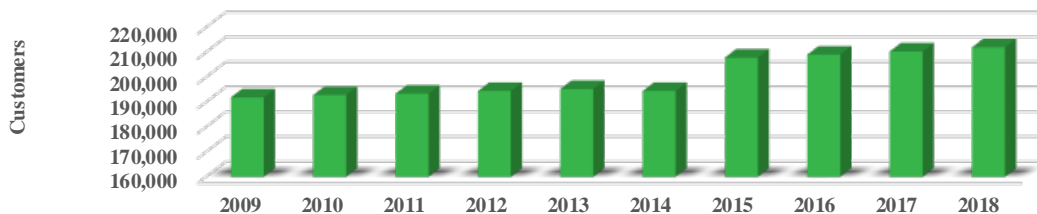
LAST TEN FISCAL YEARS

Class	Number of Customers by Fiscal Year									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Residential	183,018	181,814	187,479	186,461	174,193	174,909	174,277	173,339	172,787	171,983
Multi-Family	7,851	7,801	7,268	7,115	6,569	6,430	6,393	6,364	6,349	6,231
Commercial	12,023	11,913	11,901	11,923	11,303	11,321	11,287	11,226	11,272	11,367
Institutional	3,680	3,650	2,187	2,150	2,196	2,391	2,316	2,279	2,223	2,119
Industrial	122	119	110	113	99	99	102	99	106	113
Other metered	720	616								
Subtotal	207,414	205,913	208,945	207,762	194,360	195,150	194,375	193,307	192,737	191,813
SW	1,365	1,362								
Other non-metered	3,120	2,940								
Total	211,899	210,215								

History of Water Users by Meter Sizes:

Meter Size	Number of Customers by Fiscal Year									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
¾"	183,398	182,232	185,894	184,743	171,395	171,874	171,103	169,984	169,414	168,632
1" and 1 ¼"	17,975	17,796	17,392	17,447	17,474	17,645	17,717	17,820	17,820	17,611
1 ½"	2,467	2,381	2,300	2,269	2,238	2,249	2,221	2,195	2,195	2,169
2"	2,575	2,509	2,386	2,349	2,303	2,352	2,320	2,228	2,228	2,179
3"	606	603	590	575	578	634	634	714	714	834
4"	284	282	278	276	270	286	273	268	268	275
6"	66	68	64	63	60	63	61	58	58	67
8" and over	43	42	41	40	42	47	46	40	40	46
Subtotal	207,414	205,913	208,945	207,762	194,360	195,150	194,375	193,307	192,737	191,813
Other Non-metered	4,485	4,302								
Total	211,899	210,215								

AVERAGE NUMBER OF CUSTOMERS

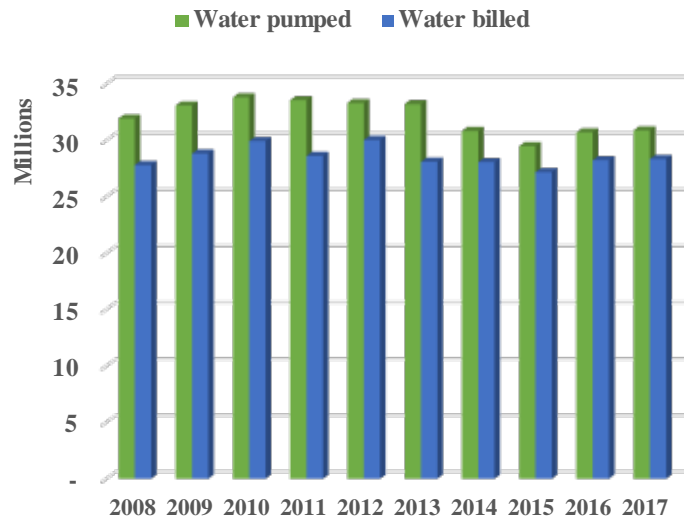


Source: ABCWUA Financial/Business Services Division

WATER CONSUMPTION

LAST TEN FISCAL YEARS

	<u>Water Pumped</u>	<u>Water Billed</u>	<u>% Billed</u>
2017	30,895,000	28,357,626	91.79%
2016	30,720,000	28,250,591	91.96%
2015	29,498,000	27,195,260	92.19%
2014	30,836,000	28,075,612	91.05%
2013	33,222,000	28,113,371	84.62%
2012	33,318,000	30,044,094	90.17%
2011	33,577,000	28,621,945	85.24%
2010	33,830,964	29,949,844	88.53%
2009	33,098,373	28,844,216	87.15%
2008	31,940,000	27,816,110	87.09%



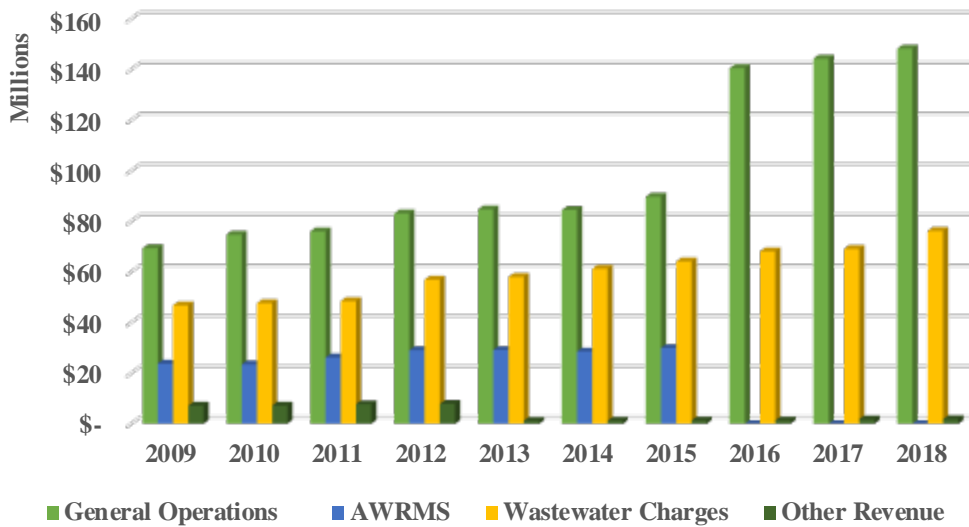
	<u>Per Capita Water Usage</u>
2017	128
2016	129
2015	127
2014	134
2013	136
2012	148
2011	150
2010	157
2009	159
2008	161

Source: ABCWUA Financial/Business Services Division

REVENUE FROM OPERATING REVENUE

LAST TEN FISCAL YEARS

Fiscal Year	Revenue from Water Charges		Wastewater Charges	Other Revenue	Total Operating Revenue
	General Operations	AWRMS ⁽¹⁾			
2018	148,315,450	-	76,253,042	1,828,000	226,396,492
2017	144,342,932	-	69,101,050	1,750,000	215,193,982
2016	140,551,140	-	68,166,636	1,339,000	210,056,776
2015	89,768,328	29,939,349	64,171,110	1,323,000	185,201,787
2014	84,500,221	28,561,586	61,327,115	1,232,000	175,620,922
2013	84,713,861	29,161,139	58,031,483	1,142,000	173,048,483
2012	83,145,457	29,096,281	56,982,228	7,830,724	177,054,690
2011	76,072,550	26,219,494	48,504,637	7,718,145	158,514,826
2010	74,773,904	23,483,160	47,685,066	7,202,722	153,144,852
2009	69,395,141	23,803,266	46,805,468	7,141,714	147,145,589



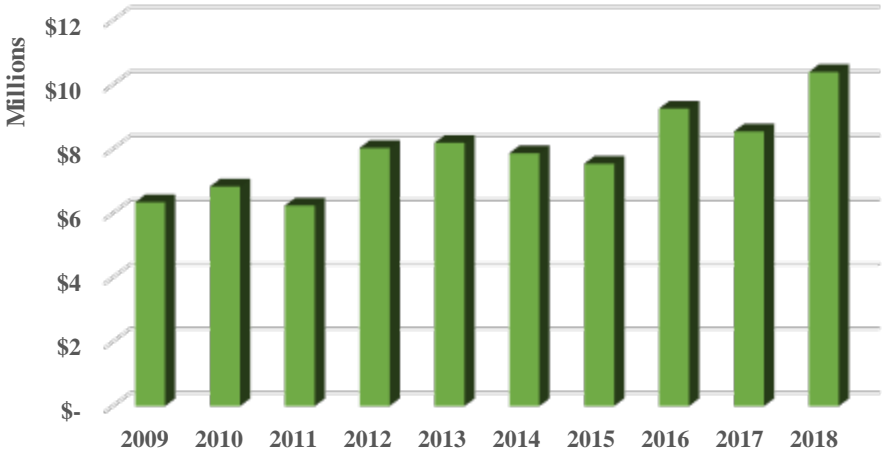
Source: ABCWUA Financial/Business Services Division

Note: In Fiscal Year 2016 the Albuquerque Water Resource Management Strategy (AWRMS) revenues were combined with General Operations revenue as part of the new rate ordinance structure.

REVENUE FROM UTILITY EXPANSION CHARGES

LAST TEN FISCAL YEARS

<u>Fiscal Year</u>	<u>Utility Expansion Charges</u>
2018	10,397,749
2017	8,545,978
2016	9,256,938
2015	7,541,201
2014	7,872,237
2013	8,197,016
2012	8,035,123
2011	6,240,073
2010	6,834,261
2009	6,346,401



Source: ABCWUA Financial/Business Services Division

PRINCIPAL REVENUE PAYERS

CURRENT FISCAL YEAR AND NINE YEARS AGO

Water Customer Name	2018				2009			
	Water Revenue	Rank	% of Total Revenue	Consumption	Water Revenue	Rank	Total Revenue	Consumption
City of Albuquerque	\$ 9,618,383	1	6.49%	3,052,168	\$ 3,958,332	1	4.25%	1,920,863
Albuquerque Public Schools	3,084,491	2	2.08%	708,280	1,351,427	2	1.45%	442,461
University of New Mexico	1,295,716	3	0.87%	295,974				
Bernalillo County	781,341	4	0.53%	216,552				
Kirtland Air Force Base	724,977	5	0.49%	162,237				
ABCWUA	308,390	8	0.21%	71,141				
Central NM Community College	286,707	7	0.19%	64,435				
Lovelace Health	275,650	6	0.19%	85,521	196,776	5	0.21%	105,240
Sumitomo	272,383	9	0.18%	111,329				-
Albuquerque Academy	254,689	10	0.17%	102,533				
Albuquerque Biopark Zoo					172,338	6	0.18%	102,662
NM State Fair Complex					114,814	10	0.12%	44,908
Tanoan Country Club			0.00%		248,890	3	0.27%	156,841
General Electric					98,957	8	0.11%	55,190
Four Hills Mobile Home Park			0.00%					
UNM Hospital			0.00%		134,075	7	0.14%	67,239
UNM Physical Plant			0.00%		379,206	4	0.41%	135,588
Presbyterian Health			0.00%					
Towne Park					92,494	9	0.10%	50,200
Total	\$ 16,902,727		11.40%	4,870,170	\$ 6,747,309		7.24%	3,081,192
Total Water System Revenue	\$ 148,315,450				\$ 93,198,407			

Wastewater Customer Name	2018				2009			
	Wastewater Revenue	Rank	% of Total Revenue	Consumption	Wastewater Revenue	Rank	Total Revenue	Consumption
Kirtland Air Force Base	\$ 1,409,370	1	1.85%	745,216	\$ 893,237	2	1.91%	589,723
University of New Mexico	990,988	2	1.30%	588,650				
Albuquerque Public Schools	810,218	3	1.06%	134,016	531,982	5	1.14%	123,781
City of Albuquerque	710,303	4	0.93%	101,364	411,163	4	0.88%	147,587
Creamland Dairies	663,061	5	0.87%	53,781				
Lovelace Health	163,612	6	0.21%	57,641	126,879	6	0.27%	83,351
Albuquerque Biopark Zoo					95,801	7	0.20%	71,893
Bernalillo County	175,025	7	0.23%	43,837				
Central NM Community College	127,103	8	0.17%	30,858				
Sandia Peak Services	88,918	9	0.12%	74,073	71,914	8	0.15%	68,259
Four Hills Mobile Home Park	85,971	10	0.11%	34,901	-			-
New Mexico Utilities			0.00%		2,718,901	1	5.81%	2,281,994
UNM Physical Plant			0.00%		427,102	3	0.91%	339,171
UNM Hospital			0.00%		144,208	9	0.31%	52,846
Presbyterian Health			0.00%		128,057	10	0.27%	52,740
Total	\$ 5,224,569		6.85%	1,864,337	\$ 5,549,244		11.86%	3,811,345
Total Wastewater System Revenue	\$ 76,253,042				\$ 46,805,468			

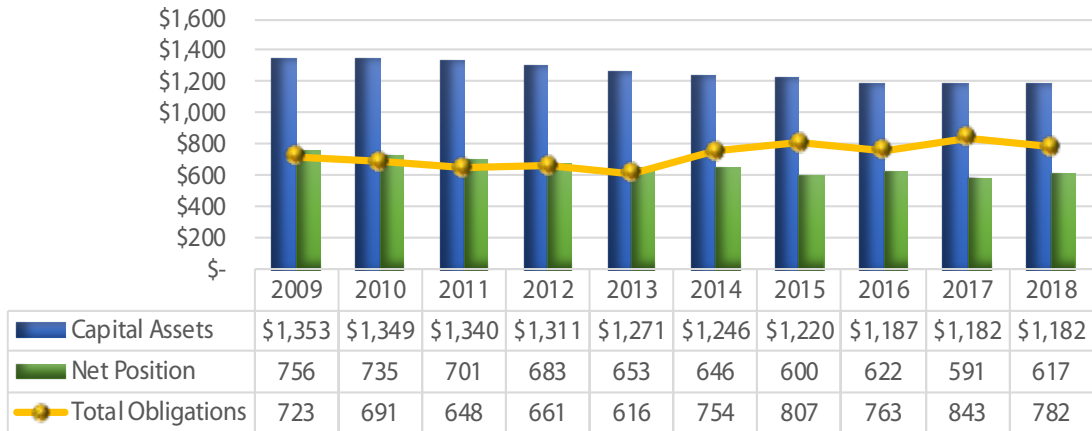
Source: ABCWUA Financial/Business Services Division

TREND ANALYSIS

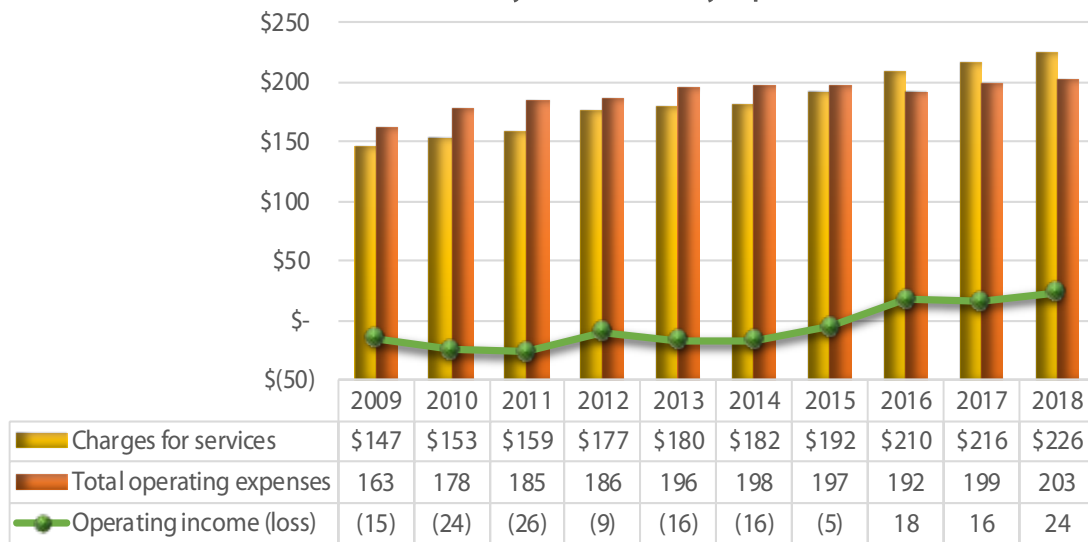
LAST TEN FISCAL YEARS

(In millions of dollars)

Trend Analysis of Capital Assets, Total Obligations, and Net Position



Trend Analysis of Authority Operations



Source: ABCWUA Financial/Business Services Division

OUTSTANDING DEBT RATIO

LAST TEN FISCAL YEARS

(In thousands of dollars)

Fiscal Year	Revenue Bonds	Loan Agreements	Water Rights Contract	Lines of Credit	Un-amortized Premium	Total	Per Capita	Per Customer
2018	551,950	39,727	6,409	-	48,088	646,174	1,184	3,148
2017	589,880	44,013	7,579	-	60,241	701,713	1,286	3,419
2016	566,455	54,819	8,715	-	58,712	688,701	1,232	3,296
2015	601,985	63,327	9,817	-	71,578	675,129	1,170	3,250
2014	533,544	137,284	10,887	-	23,864	681,715	1,204	3,198
2013	434,114	210,805	11,925	-	13,334	656,844	1,172	3,366
2012	460,415	229,644	12,932	-	17,400	702,991	1,267	3,617
2011	479,674	193,620	13,910	103	12,631	687,307	1,239	3,556
2010	504,063	206,642	14,858	760	12,529	726,323	1,322	3,768
2009	532,742	209,584	15,779	3,524	17,397	761,629	1,400	3,971

Note:

1. Per Capita is based on the estimated 2014 population provided by the US Census Bureau.
2. Per customer is based on the number of customers for the Authority.
3. This schedule was restated for the prior years due to adding un-amortized premium to the schedule

Source: ABCWUA Financial/Business Services Division

SENIOR LIEN DEBT COVERAGE

LAST TEN FISCAL YEARS

(In thousands of dollars)

SENIOR LIEN

Fiscal Year	Gross Revenues	Less: Operating Expenses	Net Available Revenue	Debt Service			Coverage	Coverage Required
				Principal ⁽⁴⁾	Interest	Amortized Premium		
2018	\$ 240,966	\$ 112,680	128,286	\$31,018	\$23,948	(12,153)	3.00	1.33
2017	\$ 227,044	\$ 111,326	115,718	\$37,497	\$23,899	(12,407)	2.36	1.33
2016	226,774	106,897	119,877	43,031	23,794	(12,866)	2.22	1.33
2015	203,834	107,597	96,237	33,819	22,579	(9,046)	2.03	1.33
2014	199,234	108,177	91,057	41,151	31,502	(4,684)	1.34	1.33
2013	184,338	96,611	87,727	39,732	23,773	-	1.38	1.33
2012	180,272	94,085	86,187	38,674	22,878	-	1.40	1.33
2011	166,652	88,790	77,862	37,329	29,146	-	1.17	1.33
2010	158,528	87,768	70,760	34,094	33,953	-	1.04	1.33
2009	160,800	83,177	77,623	34,996	27,345	-	1.25	1.33

SENIOR AND SUBORDINATE LIEN

Fiscal Year	Gross Revenues	Less: Operating Expenses	Net Available Revenue	Debt Service			Coverage	Coverage Required
				Principal ⁽⁴⁾	Interest	Amortized Premium		
2018	\$ 240,966	\$ 112,680	128,286	\$42,216	\$27,303	(12,153)	2.24	1.20
2017	\$ 227,044	\$ 111,326	115,718	\$46,901	\$27,673	(12,407)	1.86	1.20
2016	226,774	106,897	119,877	43,964	27,865	(12,866)	2.03	1.20
2015	203,834	107,597	96,237	34,491	25,746	(9,046)	1.88	1.20
2014	199,234	108,177	91,057	42,081	31,889	(4,684)	1.31	1.20
2013	184,338	96,611	87,727	41,265	24,197	-	1.34	1.20
2012	180,272	94,085	86,187	41,574	23,404	-	1.33	1.20
2011	166,652	88,790	77,862	38,270	32,089	-	1.11	1.20
2010	158,528	87,768	70,760	36,413	34,570	-	1.00	1.20
2009	160,800	83,177	77,623	37,235	27,909	-	1.19	1.20

Note:

1. Gross revenues include operating, non-operating, and miscellaneous revenues.
2. Operating expenses exclude depreciation, bad debt, and non-capitalized major repair.
3. Interest debt service is net of any premium and/or discounts.
4. Fiscal year 2006-2013 principal and interest are combined. Starting in fiscal year 2014, they are recognized separately.
5. Beginning in fiscal year 2014, revenues and expenses include franchise fees in accordance with the updated bond ordinance. In years prior, both franchise revenues and expenses and amortization were backed out of the calculation.

Source: ABCWUA Financial/Business Services Division

DEMOGRAPHIC/ECONOMIC STATISTICS

LAST TEN FISCAL YEARS

<u>Year</u>	<u>Population Albuquerque MSA</u>	<u>Total Personal Income</u>	<u>Per Capita Personal Income</u>	<u>Unemployment Rate</u>
2018	676,953	26,162,880	38,648	4.5%
2017	545,852	20,689,428	37,903	6.0%
2016	559,121	20,650,016	36,933	6.1%
2015	557,169	20,035,240	35,959	5.7%
2014	566,059	19,385,257	34,246	6.4%
2013	560,454	18,359,913	32,759	6.8%
2012	554,905	18,192,560	32,785	7.2%
2011	554,905	17,664,291	31,833	7.6%
2010	549,411	16,695,501	30,388	8.0%
2009	543,971	16,278,876	29,926	7.8%
2008	538,586	16,255,603	30,182	4.6%

Note:

1. Population number is for the Albuquerque Metropolitan Service Area (MSA).
Business and Economic Research (BBER)

Source: US Census Bureau and the University of New Mexico Bureau of

TOP 10 MAJOR EMPLOYERS

CURRENT FISCAL YEAR AND NINE YEARS AGO

Employer	Number of Employees	Rank	% of Albuquerque MSA Employment	Number of Employees	Rank	% of Albuquerque MSA Employment
Albuquerque Public Schools	14,810	1	3.91%	14,000	3	3.38%
Kirtland Air Force Base (civilian)	10,125	2	2.67%	16,200	1	3.91%
Sandia National Laboratories	9,852	3	2.60%			
Presbyterian Hospital	7,310	4	1.93%	7,369	4	1.78%
UNM Hospital	6,021	5	1.59%	5,950	6	1.44%
City of Albuquerque	5,500	6	1.45%	5,940	7	1.43%
State of New Mexico	4,950	7	1.31%	5,910	8	1.43%
University of New Mexico	4,210	8	1.11%	15,890	2	3.83%
Kirtland Air Force Base (military)			0.00%			
Lovelace Health System	4,000	9	1.06%	7,000	5	1.69%
Bernalillo County	2,648	10	0.70%	2,618	10	0.63%
Intel Corporation	-		0.00%	3,300	9	0.80%
Total	69,426		18.33%	84,177		20.31%
Total Employment			378,716			414,400

Source: University of New Mexico Bureau of Business and Economic Research (BBER) and www.livability.com/Albuquerque

ANALYSIS METHODOLOGY FOR COMPUTING LINE ITEM ADJUSTMENTS

Numerical Rounding

Budgets were developed using whole numbers. When program strategies were summarized, each was rounded to the nearest one thousand. Rounding makes for ease of reading when reviewing the document.

Salaries

- The wage and salary base was established for each filled or authorized-to-be-filled position.
- This base is increased or decreased for all wage adjustments for FY20 to incorporate current contractual increases.
- Employee benefits are calculated on wage and salary costs at the following rates: FICA - 7.65% regular, RHCA-2.00%, PERA – 20.16% for blue and white collar and management/professional, and 7.00% for temporary employees and some seasonal employees. Other employee benefits (group life, health insurance including retiree health insurance) – budgeted at family plan levels.
- A vacancy savings rate of 0.5% for the Water Authority is calculated into employee salaries.

Operating Expenses

Division managers were required to provide detailed information supporting FY20 budget requests for supplies, repairs and maintenance, and contract services. Other FY20 operating expenses were equal to FY19 appropriated amounts. One-time appropriations for FY19 were deleted.

- Inflationary adjustments were not granted

as automatic across-the-board adjustments.

- For FY20, utilities (gas, electricity, and water) are budgeted based on historical expenses and anticipated needs.
- Power, chemicals and fuel will not exceed the CPI index and the cost of operating two water distribution systems will not exceed the consultant estimate.
- Beyond those stated above, line item increases needing special justifications include extraordinary price increases, increased workload, or a special need not previously funded.
- Workers' Compensation and insurance are treated as direct costs for FY20. These costs are identified by the Risk Management department, based on the historical experience and exposure factors relative to each specific program.
- Vehicle maintenance charges are estimated for FY20 according to the class of vehicle and historical cost of maintaining that class. These charges are designed to recover the costs of normal maintenance including a preventive maintenance program which schedules vehicles for periodic checks and needed repairs as determined by those checks.

Capital Expenses

New and replacement property items are included in the appropriate program appropriations within each of the funds.

ACRONYMS

A2LA – American Association for Laboratory Accreditation

ABCWUA – Albuquerque Bernalillo County Water Utility Authority

AFL-CIO – American Federation of Labor and Congress of Industrial Organizations

AFSCME - American Federation of State, County and Municipal Employees

AMI – Automated Meter Infrastructure

AMWA – Association of Metropolitan Water Agencies

ASR – Aquifer Storage and Recovery

AWRMS – Albuquerque Water Resource Management Strategy

AWWA – American Water Works Association

BBER – University of New Mexico, Bureau of Business and Economic Research

CAFR – Comprehensive Annual Financial Report

CC&B – Customer Care and Billing

CCTV – Closed Circuit Television

CES - Current Employment Statistics

CIP - Capital Improvement Program

CMOM – Capacity Management Operations & Maintenance Program

COLA - Cost-of-Living Adjustment

COO – Chief Operating Officer

CPI - Consumer Price Index

CSD – Customer Services program

CWA – Clean Water Act

DFA – NM Department of Finance and Administration

DMD – City of Albuquerque Department of Municipal Development

DS - Debt Service

DWL – Drinking Water Loan

DWP – San Juan–Chama Drinking Water Project

EPA – Environmental Protection Agency

ERP – Enterprise Resource Planning

EUM – Effective Utility Management

FOG – Fats, Oils, & Grease

FSE – Food Service Establishment

FTE - Full-time Equivalent Position

FY - Fiscal Year

GASB - General Accounting Standards Board

GDP - Gross Domestic Product

GFOA - Government Finance Officers Association

GIS – Geographic Information System

GPCD – Gallons per capita per day

GPS – Global Positioning System

HR – Human Resources

IDOH - Indirect Overhead

IEC – International Electrotechnical Commission

IHS – IHS Global Insight

ISO – International Organization for Standardization

ITD – Information Technology Program

KAFB – Kirtland Air Force Base

LED – Light Emitting Diode

LIMS – Laboratory Information Management System

MDC – Metropolitan Detention Center

MGD – Million Gallons per Day

MIS – Management Information System

MOU – Memorandum of Understanding

ACRONYMS

MRGCOG – Middle Rio Grande Council of Governments

MSA – Metropolitan Statistical Area

NM – New Mexico

NMED – New Mexico Environment Department

NMFA – New Mexico Finance Authority

NMU – New Mexico Utilities

NPDES – National Pollution Discharge Elimination System

NWSA – Northwest Service Area

OERP – Overflow Emergency Response Plan

OPEB – Other Post-Employment Benefits

OSHA – Occupational Safety and Health Administration

P&I – Principal and Interest

PAFR – Popular Annual Financial Report

PERA - Public Employees Retirement Association

PNM – Public Service Company of New Mexico

PPCP – Pharmaceuticals and Personal Care Products

PTF – Preliminary Treatment Facility

RAPP – Rivers and Aquifers Protection Plan

REC – Renewable Energy Credit

RHCA – Retiree Health Care Association

RFP - Request for Proposal(s)

RRAMP – Reclamation Rehabilitation and Asset Management Plan

SAD - Special Assessment District

SAF – Soil Amendment Facility

SCADA – Supervisory Control and Data Acquisition

SDF – Solids Dewatering Facility

SDWA – State Drinking Water Act

SJC – San Juan-Chama

SJCWTP - San Juan–Chama Water Treatment Plant

SOP – Standard Operating Procedures

SRF – State Revolving Loan Fund

SSO's – Sanitary Sewer Overflows

SW – Solid Waste

SWRP - Southside Water Reclamation Plant

SWTP – Surface Water Treatment Plant

TAT – Turnaround Time

TCAC – Technical Customer Advisory Committee

UCMR4 –Unregulated Contaminant Monitoring Rule 4

UEC – Utility Expansion Charge

UNM – University of New Mexico

UOTF – EPA's Utility of the Future

UV – Ultra-Violet

WA - Water

WAF – Water Assistance Fund

WAVES – Water Authority Virtual Education System

WQL – Water Quality Laboratory

WR – Water Resources department

WRMS – Water Resources Management Strategy

WTP – Water Treatment Plant

WW - Wastewater

YR - Year

SELECTED GLOSSARY OF TERMS

ACCRUED EXPENSES: Expenses incurred but not due until a later date

ADJUSTMENTS FOR POLICY DIRECTION CHANGES: Approved adjustment to the maintenance-of-effort budget both positive and negative which are considered major policy issues

AMERICAN WATER WORKS ASSOCIATION: An international nonprofit scientific and educational society dedicated to the improvement of water quality and supply and is the authoritative resource for knowledge, information, and advocacy to improve the quality and supply of water in North America

ANNUALIZED COSTS: Costs to provide full year funding for services initiated and partially funded in the prior year

APPROPRIATION: Legal authorization granted by the Water Authority Board to make expenses and to incur obligations for specific purposes within specified time and amount limits

APPROPRIATIONS RESOLUTION: Legal means to enact an appropriation request, e.g., annual operating budget

AUDIT: Official examination of financial transactions and records to determine results of operations and establish the Water Authority's financial condition

BASE BUDGET: Portion of an annual budget providing for financing of existing personnel, replacement of existing equipment, and other continuing expenses without regard for price changes

BONDED INDEBTEDNESS/BONDED DEBT: That portion of indebtedness represented by outstanding general obligation or revenue bonds

CAPITAL BUDGET: Plan of approved capital outlays and the means of financing them

CAPITAL EXPENSES: Expenses to acquire or construct capital assets

DEBT SERVICE FUND: Fund for the accumulation of resources to pay principal,

interest, and fiscal agent fees on long-term debt

DEPARTMENT: A set of related functions that are managed below the Program Strategy level, and are the smallest unit of budgetary accountability and control

ENCUMBRANCES: Commitments of appropriated monies for goods and services to be delivered in the future

ENTERPRISE FUND: Fund established to account for services financed and operated similar to private businesses and with costs recovered entirely through user charges

FINANCIAL PLAN: See Operating Budget

FISCAL YEAR: For the Water Authority, a period from July 1 to June 30 where the financial plan (budget) begins the period and an audit ends the period

FRANCHISE FEE: A fee based upon gross revenue that results from an authorization granted to rent and use the rights-of-way and public places to construct, operate and maintain Water Authority facilities in the City of Albuquerque, Bernalillo County, the Village of Los Ranchos, and the City of Rio Rancho

FUND: Fiscal and accounting entity with self-balancing set of books to accommodate all assets and liabilities while conforming to designated parameters

FUND BALANCE: Fund equity of governmental funds. See also Working Capital Balance

GOALS: General ends toward which the Water Authority directs its efforts in terms of meeting desired community conditions. The Executive Director and Water Authority Board with input from the community, establish Goals for the Water Authority

SELECTED GLOSSARY OF TERMS

INDIRECT OVERHEAD: Cost of central services allocated back to a department through a cost allocation plan

INTERFUND TRANSFER: Legally authorized transfers from one fund to another fund

INTERGOVERNMENTAL REVENUES: Revenues from other governments in the form of grants, entitlements, shared revenues, etc.

ISSUE PAPERS: Forms used in the budget process to track and request budget changes

MAINTENANCE OF EFFORT: Base budget plus allowances for cost-of-living wage adjustments and inflationary price increases, or within a limited time frame

MAXIMO: Maximo Enterprise's asset and service management software capabilities maximize the lifetime value of complex assets and closely align them with the Water Authority's overall business strategy

NON-RECURRING EXPENSES: Expenses occurring only once, or within a limited time frame, usually associated with capital purchases and pilot projects

NON-RECURRING REVENUES: Revenues generated only once

NORTHWEST SERVICE AREA: Water and wastewater service to approximately 17,000 accounts on Albuquerque's West Side. The 34-square-mile service area includes Paradise Hills and the Ventana Ranch subdivision

OPERATING EXPENSES: Term that applies to all outlays other than capital outlays

OPERATING BUDGET: Financial plan for future operations based on estimated revenues and expenses for a specific period

OPERATING REVENUES: Proprietary (enterprise service) fund revenues directly related to the fund's primary service activities and derived from user charges for services

PROGRAM STRATEGY: The unit of appropriations and expense that ties related service activities together to address a desired community

condition(s) that pertains to one of the Water Authority's Goals

QUALSERVE: A voluntary, continuous improvement program offered jointly by the American Water Works Association and the Water Environment Federation to help water/wastewater utilities improve their performance and increase customer satisfaction on a continuing basis. The program evaluates all facets of the utility business including organization development, business operations, customer relations, and core water/wastewater operations. QualServe comprises of three components: Benchmarking, Self-Assessment, and Peer Review

RECURRING EXPENSES: Expenses generally arising from the continued operations of the Water Authority in a manner and at a level of service that prevailed in the last budget, or new and/or increased services expected to be provided throughout the foreseeable future

RECURRING REVENUES: Revenues generated each and every year

RATE RESERVE: A reserve set aside as restricted cash to be used as revenue in years when revenue is down to offset potential rate increases

RESERVE: Portion of fund balance earmarked to indicate its unavailability or to indicate portion of fund equity as legally segregated for a specific future use

REVENUES: Amounts received from user fees, taxes and other sources during the fiscal year

REVENUE BONDS: Bonds whose principal and interest are payable exclusively from earnings of the Water Authority, and are thereby not backed by the full faith and credit of the issuer

SELECTED GLOSSARY OF TERMS

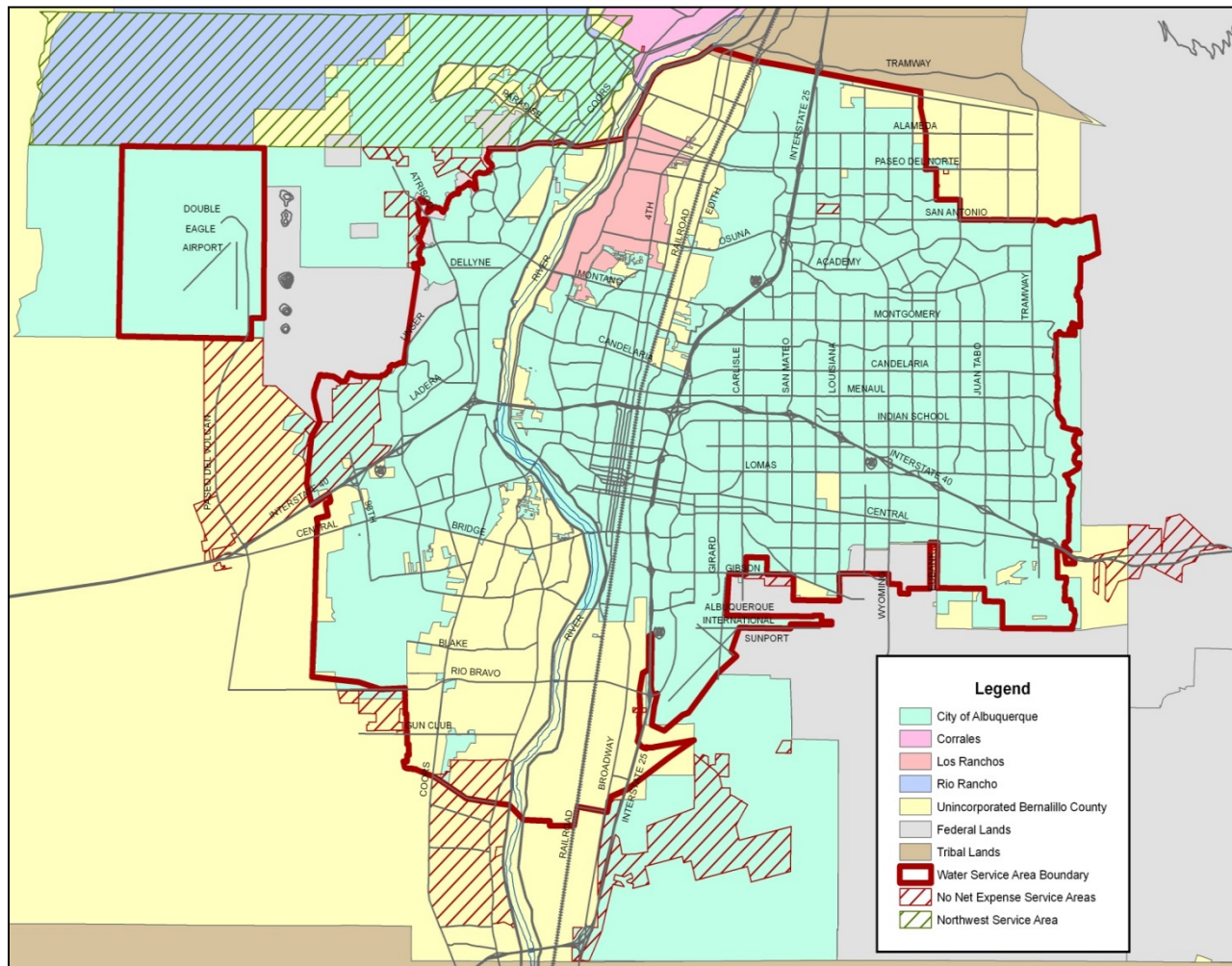
STATE ENGINEER PERMIT 4830: The permit allows the Water Authority to divert 97,000 acre-feet annually from the Rio Grande consisting of an equal amount of Water Authority San Juan-Chama water and native Rio Grande water. The native Rio Grande water is required to be simultaneously released from the Southside Water Reclamation Plant. The State Engineer's permit is the foundation of the Drinking Water Project from a water rights perspective

UNACCOUNTED FOR WATER: The difference between the quantities of water supplied to the Water Authority's network and the metered quantity of water used by the customers. UFW has two components: (a) physical losses due to leakage from pipes, and (b) administrative losses due to illegal connections and under registration of water meters

UTILITY EXPANSION CHARGES: assessed by the Water Authority to compensate for additional costs associated with the type and location of new development

WORKING CAPITAL BALANCE: Remaining current assets in a fund if all current liabilities are paid with current assets

WATER SERVICE AREA MAP



Major Assets:

- 92 MGD San Juan-Chama Surface Water Treatment Plant
- Adjustable diversion dam, intake structure and raw water pump station on the Rio Grande
- 60 ground water supply wells (184 MGD)
- 62 water supply reservoirs providing both mixed surface and groundwater including non-potable reservoirs
- 46 pump stations including non-potable facilities
- 3,130 miles of water supply pipeline
- 4 arsenic removal treatment facilities (15 MGD)

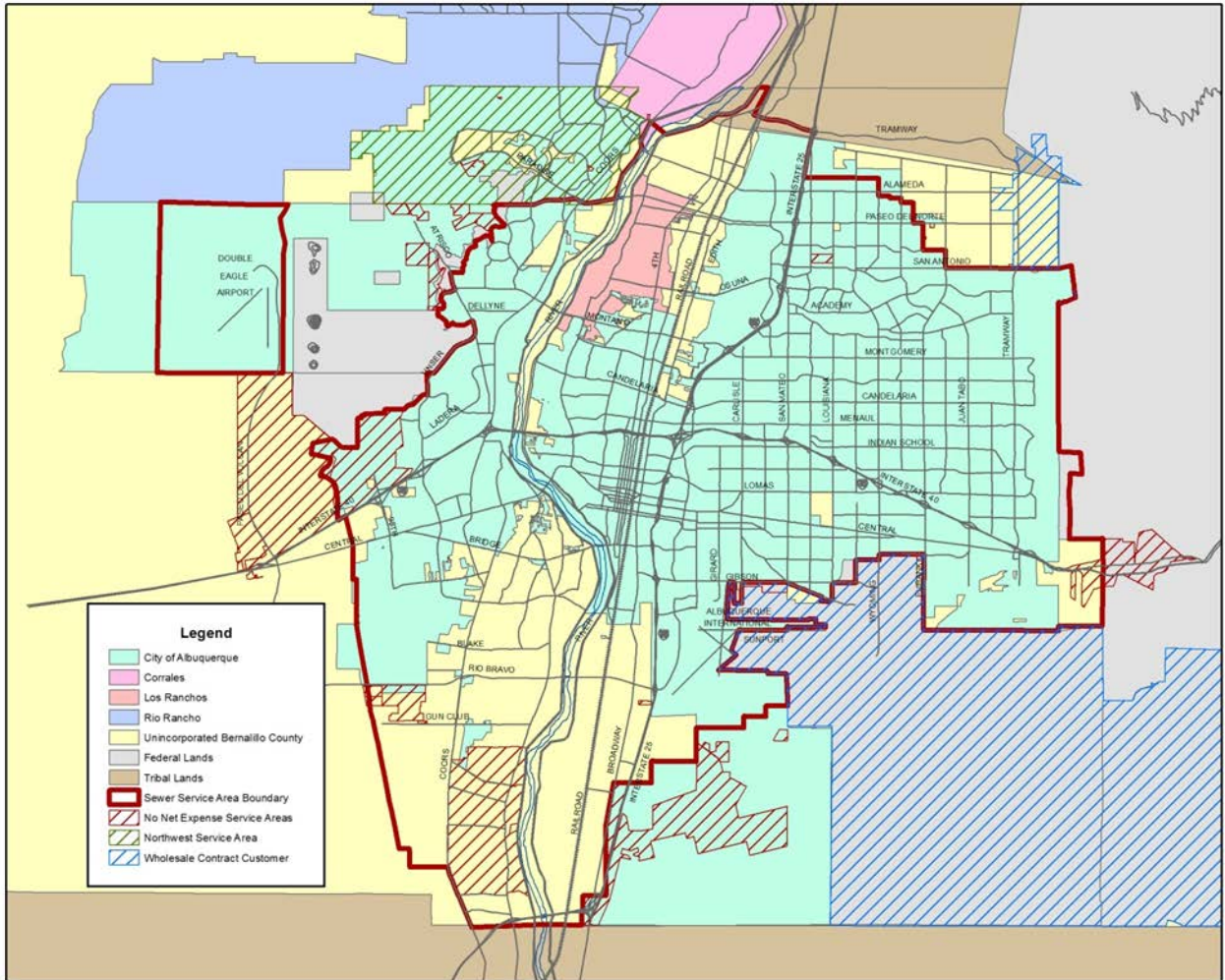
WATER SERVICE AREA MAP

The Water System provides water services to approximately 676,298 residents comprising approximately 95% of the residents of the County. About one-third of unincorporated County residents are customers of the Water System. As of January 1, 2018, service is provided to approximately 211,899 customer accounts, including 183,018 residential and 28,881 multi-family, commercial, institutional and industrial accounts. Approximately 50% of the water sales are for residential uses.

Surface water from the San Juan-Chama project that is utilized through the San Juan-Chama Drinking Water Project is the primary source of potable water supply for the Water Authority. Groundwater is used to supplement surface water supplies to meet peak demands and to provide supply during drought periods or other times when surface water is not available. The Water Authority also owns and operates two non-potable water systems to provide irrigation and industrial water in the service area. In fiscal year 2018, the Water Authority's water resources use consisted of 29.9% from groundwater, 68.6% from San Juan-Chama surface water, and 1.5% from reuse of treated effluent for irrigation. The groundwater supply is produced from 60 wells grouped in 17 well fields located throughout the metropolitan area and the San Juan-Chama surface water is diverted from the Rio Grande River. Total well production capacity is approximately 294 million gallons per day (MGD). Eliminating high arsenic wells (those greater than 10 parts per billion arsenic) results in available production capacity of 184 MGD. Maximum historical peak day demand is 214 MGD. Peak day demand for 2017 was 147 MGD. The Water Authority also has four arsenic treatment facilities that remove naturally occurring arsenic from groundwater. Each well field includes chlorination for disinfection as required by the Safe Water Drinking Act.

Water storage reservoirs provide for fire, peak hour and uphill transfer storage. Water is distributed from higher to lower elevations through a 115-foot vertical height pressure zone to provide minimum static pressures of 50 pounds per square inch (psi) for consumers. Sixty-two (62) reservoirs are located throughout the service area, with a total reservoir storage capacity of 245 million gallons. If demand requires, reservoir water can also be transferred to a higher zone or across zones through an east-west series of reservoirs by means of pump stations sited at the reservoirs. There are a total of 129 boosters, with a total capacity of 775 MGD, available for water transfers between reservoirs. These reservoirs are interconnected by 3,130 miles of pipelines and are situated at various locations east and west of the service area to provide multiple sources of supply to customers and for operating economies. The Water System takes advantage of the unique topography of the Water Authority's service area which allows ground level storage while simultaneously providing system pressure by gravity. Control of the Water System is provided by remote telemetry units distributed throughout the Water System for control from a central control facility.

WASTEWATER SERVICE AREA MAP



Major Assets:

- Southside Water Reclamation Plant
- 45 Lift Stations
- 2,400 miles of collection pipeline

WASTEWATER SERVICE AREA MAP

The Wastewater System consists of small diameter collector sewers, sewage lift stations, and large diameter interceptor sewers conveying wastewater flows by gravity to the Southside Water Reclamation Plant. The wastewater treatment plant provides preliminary screening, grit removal, primary clarification and sludge removal, advanced secondary treatment including ammonia and nitrogen removal, final clarification, and effluent disinfection using ultraviolet light prior to discharge to the Rio Grande.

Treatment plant capacity is based upon 76 MGD hydraulic capacity. Existing flows at the plant have averaged 52 MGD over the past five years. The Authority has an operational industrial pretreatment program approved by the United States Environmental Protection Agency (EPA). The EPA recognized that the Water Authority's pollution prevention efforts have been largely responsible for the Water Authority maintaining compliance with strict standards contained in National Pollution Discharge Elimination System (NPDES) Permit #NM0022250. The Water Authority's wastewater effluent discharge consistently meets all NPDES permit requirements. In February 2017, the Water Authority submitted a NPDES permit renewal application. In March 2018, the EPA issued a Proposed NPDES Permit.

Since January 2003, the treatment plant has had a 6.6 mega-watt cogeneration facility to provide most of its power needs. The cogeneration facilities are complemented by a one mega-watt solar energy plant that began service in December 2012. These on-site power generating facilities normally supply 100% of the treatment plant's present electrical needs, along with providing heating of various buildings and sludge digesters. The engines are fueled by methane produced in the digesters and by natural gas purchased through a contract carrier. The Southside Water Reclamation Plant currently generates electricity from the bio-gas produced in the digesters. This is no cost gas that qualifies the electricity generated for Renewable Energy Certificates (REC). These certificates have a value to other electrical energy producers and the Water Authority continues to research how to sell its RECs to increase revenue.

The Water Authority currently manages wastewater sludge using two methods: surface disposal and production of compost. The Water Authority sells the compost, primarily to the State Department of Transportation. A 660-acre dedicated surface disposal site is used when seasonal market conditions are not favorable for sale of compost product. During FY18, 59% of all sludge produced at the treatment plant was beneficially recycled into compost and sold. The Water Authority's Compliance Division operates a water quality laboratory, providing analytical support for process control and regulatory compliance for wastewater, drinking water, groundwater, storm water, surface water, the zoological park, residuals management and environmental health programs. The laboratory is internationally accredited by the American Association for Laboratory Accreditation (A2LA). The Water Authority reduces expenses by analyzing most of the bacteriological samples at the Water Authority's internal water quality lab.



LEGISLATION

*Approved
Operating Budget
FY20*


1 PASSED AND ADOPTED THIS 22nd DAY OF May, 2019
2 BY A VOTE OF: 5 FOR 0 AGAINST.

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Yes: Peña, Hart Stebbins, Nair, Jones and Davis

No:

Excused: O'Malley, Sanchez, Quezada,



Klarissa Peña, Vice Chair

ATTEST:



Mark S. Sanchez, Executive Director

1	Customer Services	5,192,000
2	Information Technology	7,370,000
3	Wastewater Plant	11,786,000
4	San Juan-Chama Water Treatment Plant	4,285,000
5	Groundwater Operations	6,614,000
6	Wastewater Collections	7,077,000
7	Water Field Operations	23,824,000
8	Compliance	5,424,000
9	Planning & Engineering	4,008,000
10	Water Resources	4,675,000
11	Power & Chemicals	21,487,000
12	Taxes	656,000
13	Authority Overhead	1,839,000
14	San Juan-Chama	2,747,000
15	Transfers to Other Funds:	
16	Rehab Fund (28)	31,618,000
17	Debt Service Fund (31)	79,411,000
18	<u>DEBT SERVICE FUND – 31</u>	88,496,000
19	This appropriation is allocated to the following programs:	
20	Debt Service	84,496,000
21	Transfer to Other Funds:	
22	Growth Fund (29)	4,000,000

23 Section 2. The Executive Director is authorized to develop and establish a
24 nonrecurring safety/performance incentive program. This program will provide
25 employees with an incentive based on cost reductions or performance enhancements
26 resulting in operating efficiencies and/or a reduction in work related losses. Funding for
27 this program is contingent on savings in the same or a greater amount.

28 Section 3. The Water Authority shall continue its partnership with non-profit
29 affordable housing developers under contract with local government whereby the first-
30 time homebuyer will not be required to pay the Utility Expansion Charge until the
31 property is sold. No more than 50 units per year will be authorized under this program.
32 The Water Authority will secure its position with a second mortgage.

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Section 4. The Executive Director is authorized to carry out all appropriations contained in this budget in accordance with established policies and procedures.

1 PASSED AND ADOPTED THIS 22nd DAY OF May, 2019
2 BY A VOTE OF: 5 FOR 0 AGAINST.

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5 Yes: Peña, Hart Stebbins, Nair, Jones and Davis

6 No:

7 Excused: O'Malley, Sanchez, Quezada,

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18 ATTEST:

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Mark S. Sanchez, Executive Director

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Klarissa Peña, Vice Chair

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

BILL NO. R-19-9

1 **RESOLUTION**
2 **APPROPRIATING FUNDS FOR THE CAPITAL IMPLEMENTATION PROGRAM FOR**
3 **THE ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY FOR**
4 **THE FISCAL YEAR BEGINNING JULY 1, 2019 AND ENDING JUNE 30, 2020**

5 WHEREAS, the Albuquerque Bernalillo County Water Utility Authority (Water
6 Authority) as a political subdivision of the State of New Mexico is required to budget and
7 account for all money received or spent in accordance with New Mexico laws; and

8 WHEREAS, the Board, by Ordinance, has established a budget process for the
9 Authority; and

10 WHEREAS, the Budget Ordinance, requires the Executive Director to formulate
11 an annual Capital Implementation Program budget for the Water Authority; and

12 WHEREAS, the Budget Ordinance requires the Water Authority Board to approve
13 or amend and approve the Executive Director's proposed budget; and

14 WHEREAS, the Board has received the Capital Implementation Program Budget
15 formulated by the Executive Director and has deliberated on it and provided public notice
16 and input; and

17 WHEREAS, appropriations for the Capital Implementation Program of the Water
18 Authority must be approved by the Board; and

19 WHEREAS, the appropriation of these Capital Implementation Program funds to
20 projects with their respective purposes are timely and necessary for Water Authority to
21 serve its customers.

22 BE IT RESOLVED BY THE WATER AUTHORITY:

23 That the appropriations for the projects as stated below are hereby made.

24 Basic Program Appropriations:

25	Sanitary Sewer Pipeline Renewal	9,525,000
26	Drinking Water Pipeline Renewal	6,150,000
27	Southside Water Reclamation Plant Renewal	23,220,000
28	Soil Amendment Facility (SAF) Renewal	50,000

	1	Lift Station and Vacuum Station Renewal	2,950,000
	2	Odor Control Facilities Renewal	250,000
	3	Drinking Water Plant Groundwater System Renewal	4,775,000
	4	Drinking Water Plant Treatment Systems Renewal	1,750,000
	5	Reuse Line and Plant Rehab	150,000
	6	Compliance	390,000
	7	Shared Renewal	390,000
	8	Franchise Agreement Compliance	
	9	3,950,000	
	10	Vehicles and Heavy Equipment	4,450,000
	11	<u>Special Projects:</u>	
	12	Steel Waterline Rehab	1,000,000
	13	Automated Meter Infrastructure (AMI)	2,000,000
	14	Renewable Energy Projects	350,000
	15	Miscellaneous (State of NM Capital Outlay Projects)	2,691,000
	16	<u>Growth:</u>	
	17	Land & Easement Acquisition	500,000
	18	Development Agreements	940,000
	19	MIS/GIS	2,000,000
	20	Master Plans	500,000
	21	Miscellaneous	60,000
	22	<u>Other:</u>	
	23	Water 2120 Project Fund	300,000
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[+Bracketed Material+] - New
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*APPENDIX -
PERFORMANCE PLAN*

*Approved
Operating Budget
FY20*

Fiscal Year 2020 Performance Plan

**Water Supply &
Operations**

**Wastewater
Collection &
Operations**

**Customer
Relations**

**Business Planning
& Management**

**Organization
Development**



Albuquerque Bernalillo County
Water Utility Authority

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Executive Summary

The Albuquerque Bernalillo County Water Utility Water Authority's (Water Authority) Budget Ordinance requires that a Performance Plan be connected to the Five-Year Goals and contain performance measures that help guide the operating and capital budgets in allocating the Water Authority's financial resources. The FY20 Performance Plan assesses the performance of the Water Authority using a set of identified and tested, high-level performance measures. These measures are designed to help the Water Authority improve its operational efficiency and effectiveness by identifying areas of improvement. The measures also provide a mechanism to conduct comparative analyses in order to implement quality improvement processes and enhance decision-making.

The Performance Plan contains three years of actual prior year data which establishes a baseline as well as projected performance targets that drive financial and budgetary policies. In addition to assessing its performance year to year, the Water Authority assesses its performance in relation to the other utilities.

The Performance Plan contains 27 key performance measures organized by the Water Authority's Five-Year Goal areas. The following table summarizes the Water Authority's performance compared to its targets and tracks the Water Authority's progress of baseline, current, and target performance.

Goal	Performance Measure	Baseline	Current	Target
Water Supply & Operations	Drinking Water Compliance Rate	▲	▲	▲
	Distribution System Water Loss	▲	▲	▲
	Water Distribution System Integrity	■	■	■
	Operations and Maintenance Cost Ratios	▲	▲	▲
	Planned Maintenance Ratio	■	■	■
	Water Use per Capita Consumption	▲	▲	▲
Wastewater Collection & Operations	Sewer Overflow Rate	■	■	■
	Collection System Integrity	■	■	■
	Wastewater Treatment Effectiveness Rate	■	■	■
	Operations and Maintenance Cost Ratios	▲	▲	▲
	Planned Maintenance Ratio	■	■	■
Customer Services	Customer Service and Technical Quality Complaints	▲	▲	▲
	Customer Service Cost per Account	■	■	■
	Billing Accuracy	■	■	■
	Call Center Indicators	■	▲	▲
	Residential Cost of Water/Sewer Service	■	■	■
	Stakeholder Outreach Index	▲	▲	▲
Business Planning & Management	Debt Ratio	■	■	■
	Return on Assets	■	■	■
	System Renewal/Replacement Rate	■	■	■
	Triple Bottom Line Index	■	■	■
Organization Development	Employee Health and Safety Severity Rate	▲	▲	▲
	Training Hours per Employee	■	■	■
	Customer Accounts per Employee	▲	▲	▲
	Employee Turnover	▲	▲	▲
	Retirement Eligibility	▲	▲	▲
	Organizational Best Practices Index	▲	▲	▲

Performance Key

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Excellent

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Good

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Fair

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Poor

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Introduction

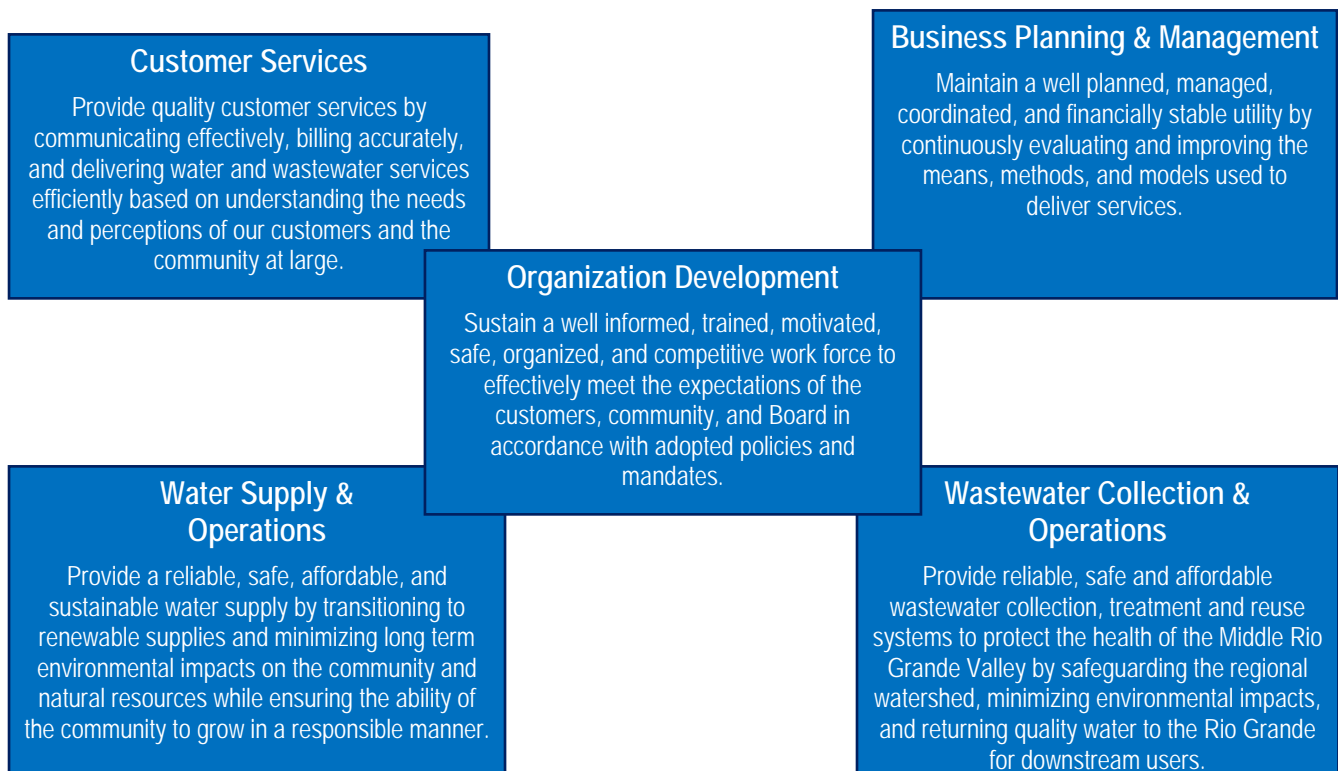
The Albuquerque Bernalillo County Water Utility Water Authority's (Water Authority) Budget Ordinance requires that a Performance Plan be connected to the Five-Year Goals and contain performance measures that help guide the operating and capital budgets in prioritizing and allocating the Water Authority's financial resources. The Water Authority uses these measures to help improve its operational efficiency and effectiveness by identifying areas of improvement. The measures also provide a mechanism to conduct comparative analyses in order to implement quality improvement processes and enhance decision-making.

The Water Authority utilizes the *American Water Works Association's (AWWA) Benchmarking Performance Indicators Survey* (Survey) in developing its Performance Plan. The Survey provides utilities an opportunity to collect and track data from already identified and tested performance measures, based on the same collection process and definitions. The most recent survey data was compiled in 2018 by AWWA from 157 different utilities. The Performance Plan uses the survey data as a basis for its performance measures to track the Water Authority's performance with that of other utilities.

Five-Years Goals

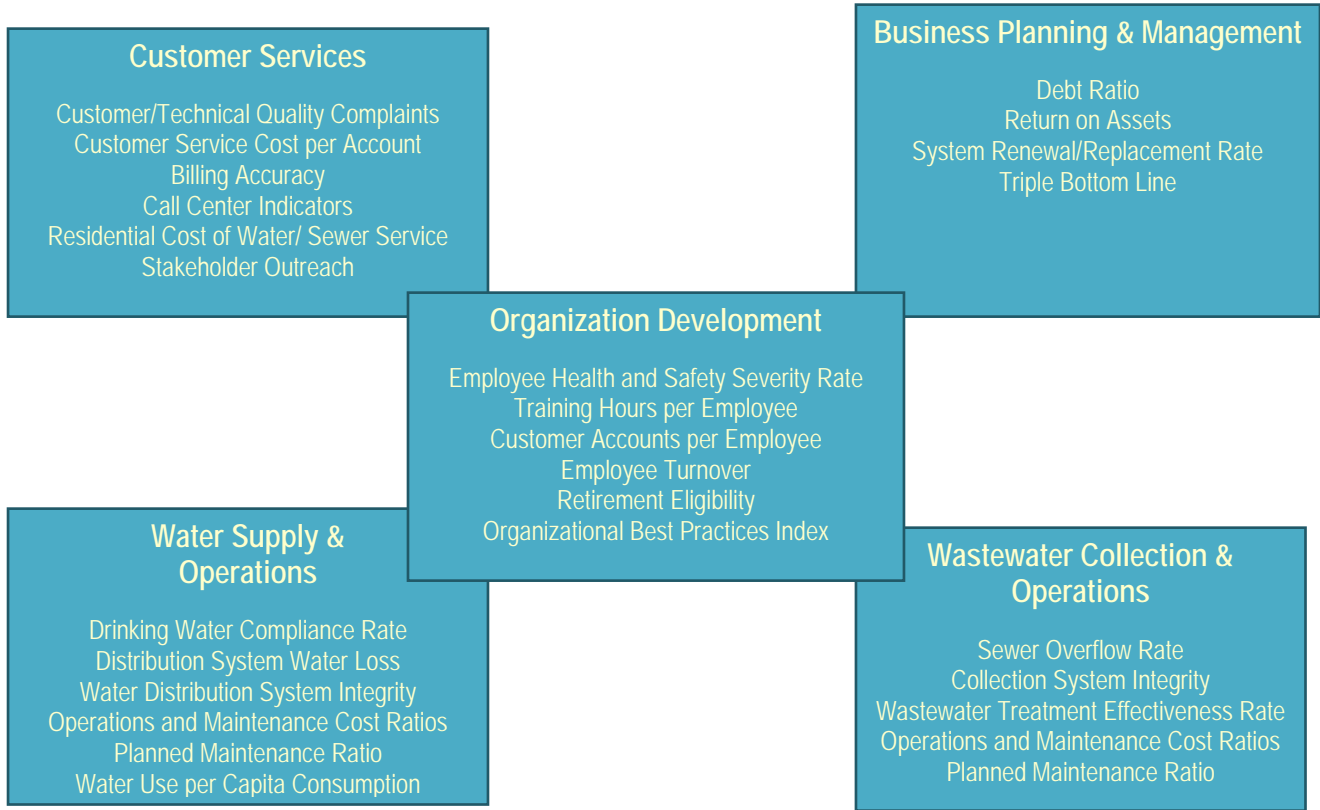
The Water Authority's Performance Plan is organized by the Water Authority's Five-Year Goal areas which are modeled after AWWA's business model. This model is based on fifteen successful quality achievement programs, including the Malcolm Baldrige National Quality Award Program, the Deming Award, and the International Standards Organization series of quality standards. The model characterizes the work of the typical water and wastewater utility around five business systems. Figure 1 shows the Water Authority's Five-Year Goals which parallels the AWWA model. The Water Authority also developed guiding goal statements for each goal area which explains the long-term desired result for each goal.

Figure 1: Water Authority's Five-Year Goals & Guiding Goal Statements



The Performance Plan contains 27 key performance measures. The performance measures are organized by the Water Authority’s Five-Year Goal areas shown in Figure 2. The performance measures are linked to the Goal areas in that the tracking of the metric is used to achieve the long-term desired result for that goal.

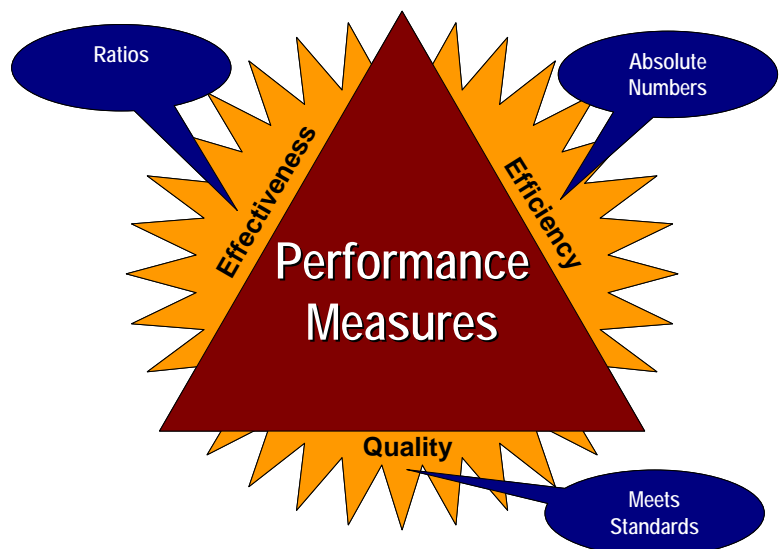
Figure 2: Performance Measures by Goal Area



Performance Measure Types

The Plan’s performance measures fall into three main categories: Quality, Effectiveness and Efficiency. Quality measures are presented as standards. Effectiveness measures are presented as ratios. Efficiency measures are presented as absolute numbers.

- (1) *Standards*, such as meeting drinking water quality standards
- (2) *Ratios*, such as operation and maintenance costs per million gallons of water or wastewater processed
- (3) *Absolute numbers*, such as the monthly bill for a residential water or wastewater customer



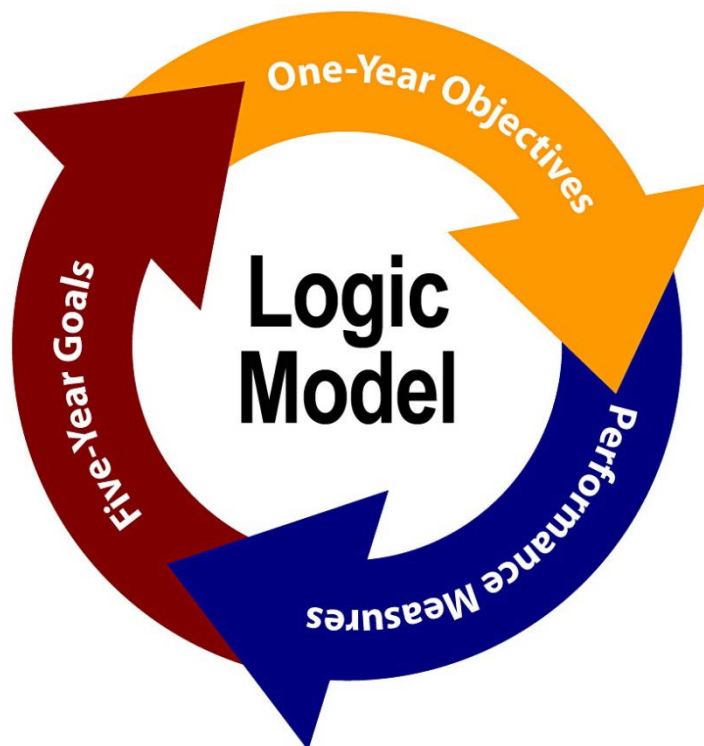
Performance Plan Logic Model

The Performance Plan presents each performance measure through an *evaluation logic model*. The logic model is a systematic and visual method that shows how performance measures quantify what is being done (inputs), how well it is being done (outputs), and why it is being done (outcomes). *Inputs* are the specific data needed to construct and calculate each performance measure. These resources may include dollars, hours, people or material resources used to produce an output. *Outputs* are the product of the calculation of the inputs and describe the level of effectiveness of each performance measure. The outputs are the metrics that are benchmarked with other utilities. *Outcomes* are the desired result of the performance measure that the Water Authority would like to achieve in connection with its long-range goals and with its shorter-term objectives. The logic model is used to show where the organization wants to be and how it can get there.

Simply stated, the performance measures identify gaps in service delivery or performance. They are used to help monitor the Water Authority's performance and to develop performance targets. The Water Authority sets performance targets that are aligned with the desired outcomes to determine how effective or efficient the utility is in achieving the desired outcome. The Water Authority uses the desired outcomes to create an ongoing discussion with its stakeholders and show why decisions are made in prioritizing and allocating financial resources.

The Five-Year Goals and One-Year Objectives are incorporated into the logic model. Figure 3 shows the alignment between the goals, objectives and performance measures in the logic model. With the performance measures being used to identify gaps, the One-Year Objectives which are policy directives from the Water Authority Board are used to close performance or service delivery gaps and improve performance levels. It should be noted that not all One-Year Objectives are tied to performance measures or have a measurable component. Some Objectives are related to completing projects or improving or implementing programs.

Figure 3: Logic Model Alignment of Goals, Objectives and Performance Measures



Benchmarking and Industry Peer Group

The Performance Plan contains three years of actual prior year data (FY16 through FY18) which establishes a baseline. The Plan also includes estimated current fiscal year performance measures (FY19) as well as projected performance in the proposed budget year (FY20). The Plan allows the Water Authority to benchmark its performance from year to year and to determine how its current and projected performance compare to baseline past performance. Overall, the Performance Plan's logic model incorporates five years of data in determining its performance, evaluating trends, and determining projected performance.

In addition to assessing its performance year to year, the Water Authority also compares its performance with that of other utilities in its *industry peer group*. As stated in the Introduction section, the Water Authority obtains its comparative data from the AWWA Benchmarking Performance Indicators Survey. By benchmarking with other utilities, the Water Authority is able to assess its performance relative to other high-performing utilities. For each performance measure, the industry peer group is presented throughout the Plan.

Industry Peer Group	
1)	Combined Water/Sewer Represents those utilities designated as providing both water and wastewater services
2)	Populations greater than 500,000 Utilities that serve populations greater 500,000
3)	Region 4 Utilities in the following States: AR, AZ, CO, ID, KS, LA, MO, NE, NM, OK, TX, UT, WY

Strategic Planning, Budgeting and Improvement Process

The Performance Plan is a component of the *Strategic Planning, Budgeting and Improvement Process* that is discussed in the Financial Plan. This Process drives the development of the annual operating and capital budgets by providing data used to set performance goals, as well as allocate and prioritize resources. Performance measures provide an approach for strategically allocating and prioritizing resources to balance the level and cost of services with customer expectations. For example, higher treatment costs may be the desired outcome to improve customer satisfaction.

As a part of the Strategic Planning, Budgeting and Improvement Process, the Five-Year Goals, One-Year Objectives, and performance measures are integrated through the use of the logic model in order to achieve service delivery and performance improvement. A good example of the integration between performance measures and objectives is the Employee Health and Safety Severity Rate (see pages 115-117) which measures the rate of employee days lost from work due to illness or injury. Since starting the benchmarking process, the Water Authority noticed that its lost workdays were on average fifteen times higher than other utilities. As a result, the Water Authority has used the Objectives to implement several programs including safety incentive bonuses to reduce the number of employee lost days. Overall, the integration of the performance measures and objectives are used to achieve the long-term desired results of the Water Authority's Five-Year Goals.

Performance Accountability & Budgeting

Each Water Authority division manager is responsible for their respective goal areas and objectives and for tracking their performance. The Executive Director, who is the champion and supportive leader of the performance management process, meets with the division managers and their staff to review progress reports on the performance measures and objectives.

A biennial customer opinion survey is conducted to assess the utility's performance from the customer's viewpoint. Results of a customer opinion survey are presented to the Board. The survey allows the Water Authority to track customer satisfaction on the programs, policies, and operational performance of the organization. Several survey questions are tied to the performance measures and levels of service. In this way, the survey provides qualitative data that relates to quantitative data from the benchmarking to ensure that the Water Authority is balancing performance improvement with customer expectations.

The Water Authority also uses performance measures and performance targets in conjunction with the review of the annual budget. The Executive Director and Division Managers integrate performance reporting into the budget process in order to focus the budget discussion on the allocation of resources and to address performance gaps. Budget requests are tied either to performance measure targets or objectives in terms of providing a justification for their purpose. By integrating the objectives and performance measures into the budget process, the Water Authority has moved from just measuring performance to managing performance and how and what it wants to achieve. As a result, the Water Authority has become more transparent and accountable to its customers and the governing board.

Performance Measurement Linkage to Asset Management Planning


The Water Authority has established an asset management program based on a business model that helps the Water Authority make better acquisition, operations and maintenance, renewal, and replacement decisions. The principles of asset management were developed to address the critical problem of aging public infrastructure and changing utility business environment. The Water Authority has completed an Asset Management Plan (AMP) which provides a 30-year projection that will allow the Water Authority to budget for renewals and replacements into the future. The Water Authority uses performance measures, performance targets, and the customer opinion survey to develop its levels of service to deliver the defined services at the lowest life-cycle cost. In quantifying its performance, the Water Authority has begun to balance its performance with the levels of service, cost of service, customer expectations, and business risk. As a part of its AMP, the Water Authority has developed its levels of service to coincide with its performance measures at the Goal level. Moreover, a quarterly key performance indicator report is presented to the governing board which provides a snapshot of utility performance by service level categories. .

Performance Measurement Linkage to Effective Utility Management

The Effective Utility Management (EUM) was developed by the Environmental Protection Agency and several water and wastewater associations and research foundations. EUM is designed to help water and wastewater utilities comprehensively assess current operations and identify a path to improving in key areas that are the highest priorities. The Water Authority uses EUM to make informed decisions and practical, systematic changes to achieve excellence in utility performance in the face of everyday challenges and long-term needs for the utility and the community it serves.

The Water Authority uses the EUM guidebook to help identify and address its most pressing needs through an incremental, continual improvement management approach. This guidebook, called the Primer, contains *Ten Attributes of Effectively Managed Utilities* which helps the utility maintain a balanced focus on the ten operational areas. Figure 4 provides a performance relationship matrix between the Five-Year Goals and the EUM Attributes. The Water Authority uses performance benchmarking data from both the AWWA and EUM frameworks to select priorities for improvement, based on the utility's strategic objectives and the needs of the community it serves.

Figure 4: Performance Relationship Diagram of Goals and EUM Attributes

EUM Attribute	Water Supply & Operations	Wastewater Collection & Operations	Customer Services	Business Planning & Management	Organization Development	Attribute Score
 CUSTOMER SATISFACTION			■			■
 EMPLOYEE AND LEADERSHIP DEVELOPMENT					▲	▲
 ENTERPRISE RESILIENCY	■	■			■	■
 FINANCIAL VIABILITY			■	■		■
 INFRASTRUCTURE STRATEGY AND PERFORMANCE	■	■		■		■

Performance Key






▲
Excellent

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Good

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Fair

▼
Poor

Figure 4: Performance Relationship Diagram of Goals and EUM Attributes (continued)

EUM Attribute	Water Supply & Operations	Wastewater Collection & Operations	Customer Services	Business Planning & Management	Organization Development	Attribute Score
 OPERATIONAL OPTIMIZATION	■	■			■	■
 PRODUCT QUALITY	▲	▲				▲
 STAKEHOLDER UNDERSTANDING AND SUPPORT			▲			▲
 COMMUNITY SUSTAINABILITY				■	■	■
 WATER RESOURCE SUSTAINABILITY	▲			▲		▲
Goal Score	■	■	■	■	■	■

Performance Key

▲ Excellent ■ Good ■ Fair ▼ Poor

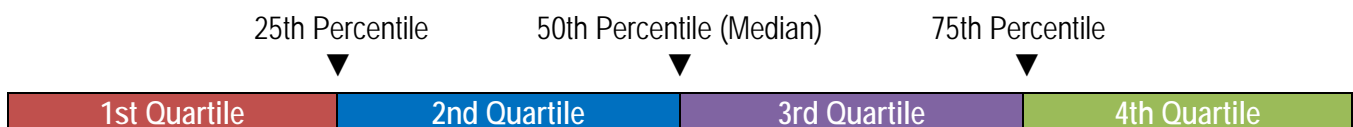
Communicating Performance Measurement

Performance measurement results and progress in meeting performance targets are communicated to elected officials and customers through this report, and to employees through-out the organization. Increasing employee understanding of the performance measures and the organization’s long-term goals is a critical step in achieving the Water Authority’s long-term goals. The Employee Health and Safety Severity Rate is a good example how the Water Authority educated the importance of meeting its goals and making safety a high priority in the organization. Employee annual performance reviews are aligned with the policy strategic objectives which have helped to educate employees about the utility’s core values, goals and annual objectives. It has engaged employees by creating awareness or by specifically allowing employees to be more accountable in improving the utility’s performance as measured through its key performance indicators.

Presentation of Data

The Performance Plan’s comparative data is presented in quartile rankings. The top quartile reflects the 75th percentile, and the bottom quartile reflects the 25th percentile. The median is the 50th percentile value. Figure 5 illustrates the four quartiles. Data in the 2nd and 3rd quartiles is described as the “Interquartile Range” which includes 50% of all the values submitted for each performance measure. This range is considered nominal or representative of the majority of the data.

Figure 5: Percentile/Quartile Illustration



Layout of Performance Plan

The performance measures are categorized by the Water Authority’s Five-Year Goal areas.

- Each Goal area section provides an overview of the Goal with a Guiding Goal Statement and Goal Performance Scorecard for each performance measure.
- Each Goal area section shows how the Objectives are linked to the performance measures and their scorecard status.
- Each performance measure is presented through a logic model of inputs, outputs and outcomes as well as comparative statistics and charts to illustrate how the Water Authority is performing year to year and how it is performing compared to the industry peer group.

A results narrative includes a discussion and analysis of how the performance measure meets anticipated performance targets and long-range goals. If the targets are not being met, an explanation is provided for the reason and what is expected in the future. The Performance Plan also indicates if there are One-Year Objectives related to a performance measure to show how policy directives are used to improve service delivery and/or minimize performance gaps. In addition, the Performance Plan provides customer opinion survey statistics to show how customer expectations relate to the performance measure.

Goal 1

Water Supply and Operations

Guiding Goal Statement

Provide a reliable, safe, affordable, and sustainable water supply by transitioning to renewable supplies and minimizing long term environmental impacts on the community and natural resources while ensuring the ability of the community to grow in a responsible manner.

Goal Performance Scorecard

Ref #	Performance Measure	Status	Trend
1-1	Drinking Water Compliance Rate	▲	▲
1-2	Distribution System Water Loss	▲	▲
1-3	Water Distribution System Integrity	■	■
1-4	O&M Cost Ratios: O&M Cost per account	▲	▲
1-4	O&M Cost Ratios: O&M Cost per MG processed	▲	▲
1-4	O&M Cost Ratios: Direct cost of treatment per MG	■	■
1-5	Planned Maintenance Ratio	■	■
1-6	Water Use per Capita Consumption	▲	▲
Overall Goal Status		■	■

Performance Key

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Excellent

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Good

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Fair

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Poor

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Linkage of Objectives to Performance Measures

FY20 Objectives	Measure Reference
Complete a capture zone analysis for Water Authority wells to identify the area most in need of protection surrounding well heads by the end of the 4th Quarter of FY20.	1-1
To improve the validated water audit inputs for apparent water loss, conduct a statistically significant number of small meter tests to support the water audit and strategic water loss plan by the end of the 4th Quarter of FY20.	1-2
Implement water loss control strategies by targeting real and apparent water losses by conducting an apparent loss forensic analysis and evaluating leak detection survey reports; By the end of the 2nd Quarter of FY20, identify areas of improvement and provide recommendations for reducing water loss.	1-2
Continue distribution water loss program by locating water leaks from surveying 650 miles of small diameter water lines through conventional leak detection methods and 2,200 miles of small diameter water lines through acoustic leak detection by the end of the 4th Quarter of FY20; Track, evaluate, and report on pilot-scale Echologics acoustic leak detection system on a quarterly basis in FY20.	1-2 1-3
To improve energy efficiency and reduce operation and maintenance costs, continue the Automated Meter Infrastructure Pressure Monitoring project and assess opportunities for operational efficiency within pressure zone 4ER and the Paseo Del Norte/Eagle Ranch interconnection by the end of the 4th Quarter of FY20.	1-3
Submit annual distribution and treatment data to the Partnership for Safe Water program for inclusion in the program's annual report of aggregated system water quality data; Continue work on items identified from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20.	1-4
Complete Ground Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 60% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.	1-5
Complete Surface Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 60% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.	1-5
Maintain water use at or below 127 gallons per capita per day through the end of the 4th Quarter of FY20	1-6
Introduce rebates for organic mulch and flow and moisture sensors by the end of the 2nd Quarter of FY20.	1-6
Track and report conservation education outreach to service area customers and meet the following targets: 1) 100 Irrigation Audits; 2) 45 Meetings with Landscapers; 3) 30 Meetings with Property Managers; and 4) 2 Water Conservation Open House Meetings by the end of the 4th Quarter of FY20.	1-6
To better educate children on the importance of water and resource planning, collaborate with ¡Explora! to design interactive water exhibits for the new STEM center which is planned to open in FY21.	1-6
Create a new puppet show and coloring book for use in the elementary school education program by the end of the 3rd Quarter of FY20.	1-6

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Performance Measure Division Responsibility

Ref #	Performance Measure	Operations Plant	Operations Field	Operations Compliance	Operations Water Resources, Engineering & Planning
1-1	Drinking Water Compliance Rate	✓		✓	
1-2	Distribution System Water Loss		✓		✓
1-3	Water Distribution System Integrity		✓		✓
1-4	O&M Cost Ratios: O&M Cost per account	✓	✓		
1-4	O&M Cost Ratios: O&M Cost per MG processed	✓			
1-4	O&M Cost Ratios: Direct cost of treatment / MG	✓			
1-5	Planned Maintenance Ratio	✓	✓		✓
1-6	Water Use per Capita Consumption				✓

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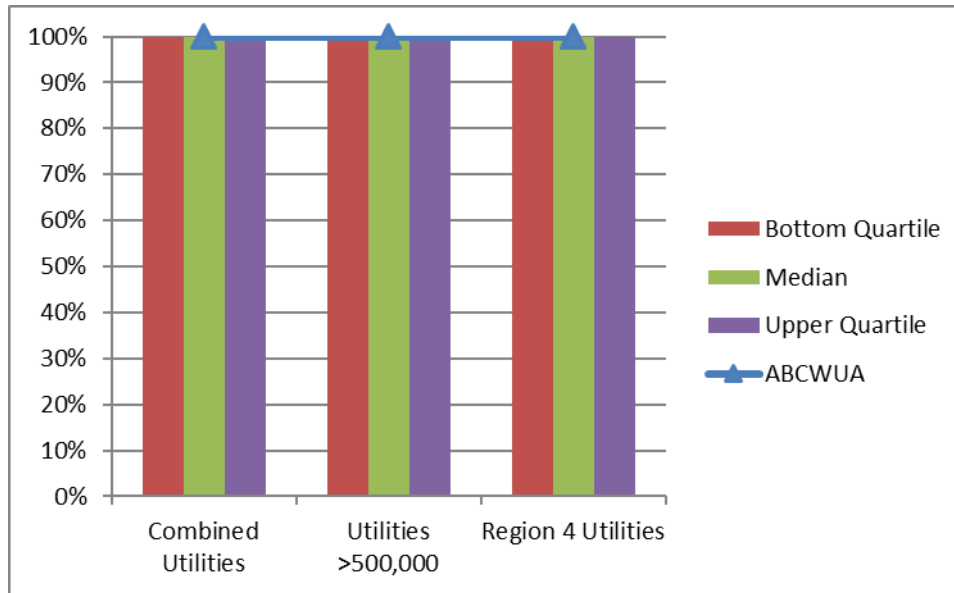
FY20 Performance Plan
Goal 1: Water Supply and Operations

1-1 Drinking Water Compliance Rate

Performance Results

Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Quality	Quantify the percentage of time each year that the Water Authority meets all of the health related drinking water standards in the US National Primary Drinking Water Regulations	Number of days in full compliance	100%	100%	100%	100%	100%	100%	Provide safe and reliable drinking water to our customers 100% of the time

Industry Benchmark



FY20 Performance Plan
Goal 1: Water Supply and Operations

Results Narrative

The drinking water compliance rate indicates the percent of time that a drinking water utility is in full compliance with all of the water quality contaminants and treatment techniques mandated for public water systems in the United States. A utility measures its compliance relative only to those primary maximum contaminant levels and treatment techniques that apply to its operations. The drinking water compliance rate uses simple tests of “in compliance” and “not in compliance.” As a performance measure for comparative analysis, the drinking water compliance rate allows a utility to gauge its compliance with health-related drinking water parameters relative to other water utilities reporting data into the comparative analysis system.

Measurement Status

The Water Authority has been in 100% compliance for the past three fiscal years and is on-target to meet 100% compliance for the next two fiscal years.

In December 2008, the Water Authority began distribution of treated surface water mixed with ground water resources as part of the San Juan-Chama Drinking Water Project (SJCDWP). In 2009, the Water Authority directed an independent review of key water quality and treatment issues for the SJCDWP treatment plant. The study was performed by Dr. Kerry Howe, a professor of engineering at the University of New Mexico and a world-renowned expert in water treatment. The study concluded that the new plant will meet or exceed all Safe Drinking Water Act regulations.

For FY12, the Water Authority developed several policy objectives to improve the processes and procedures for water quality compliance reporting. The Water Authority created a new Compliance Division in FY10 to better improve and consolidate all its compliance functions. In FY13, the Compliance Division developed and implemented a reporting system and environmental monitoring program.

In FY19, the Water Authority received recognition from the Partnership for Safe Water for treatment and distribution system operations. The Partnership for Safe Water provides self-assessment and optimization programs so that utilities have the tools to optimize water utility operation and help ensure public health protection.

Also in FY19, the Water Authority revised its Water Quality Report with an updated design. The updated report has an easier-to-read design that was developed with input from ratepayers via the utility’s Customer Conversations program. The report, a requirement of the EPA, provides information about where our drinking water originates, how it is made safe to drink, and water quality regulations. It also includes the results of EPA-required sampling and testing.

2018 Customer Opinion Survey

- 97% of customers are either very or somewhat satisfied with the reliability/availability of water
- 71% of customers are either very or somewhat satisfied with the quality of drinking water

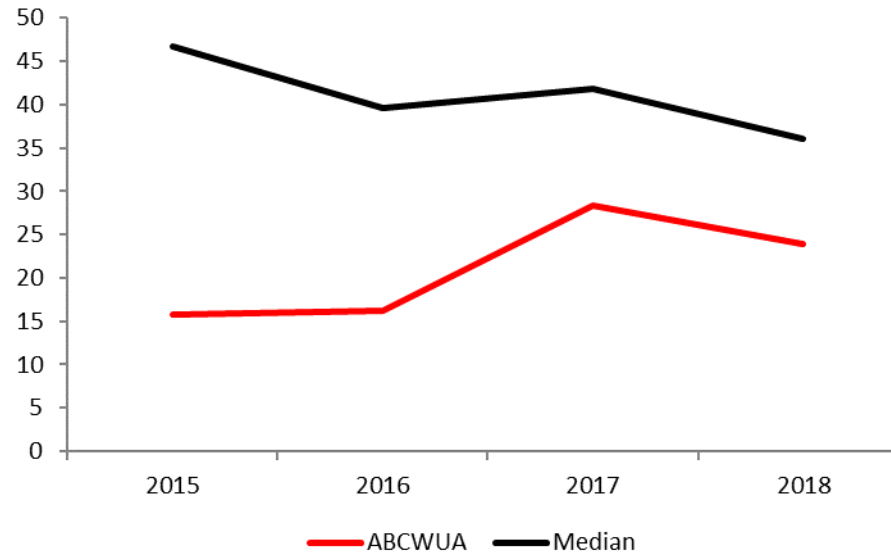
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

1-2 Distribution System Water Loss

Performance Results (Real Losses – gallons per service connection per day)

Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				2015	2016	2017	2018	2019	
Efficiency	Quantify the amount of produced water that fails to reach customers and cannot otherwise be accounted for through authorized usage	Total water loss from leakages, total water distributed	20.1	15.8	16.2	28.4	23.8	23.0	Improve water use efficiency and recover lost revenue

Industry Benchmarks



Lower Values Desirable

FY20 Performance Plan
Goal 1: Water Supply and Operations

Results Narrative

Distribution system water loss is the difference between the volume of water distributed for use by all customer classes and the volume of water actually consumed by authorized users. There are many factors contributing to distribution system water loss. The major ones are leakage, metering inaccuracies, and unauthorized consumption. Among these, only leakage is a true loss of water. Metering inaccuracies affect the utility's capability for measuring true loss, but such inaccuracies can lead to both overstatements and understatements of the true loss. Because water losses impact revenues, it is important that a utility have practices in place to understand the specific causes of losses in its system. Tracking water losses will help the Water Authority understand the condition of distribution system infrastructure and the effects of its operation, maintenance, and replacement practices. This measure provides opportunity for the Water Authority to compare the distribution system water loss against that in the distribution systems of other utilities.

Measurement Status

The Water Authority has had significant success in its performance in this measure. In FY09, the Water Authority began its leak detection program that focused on finding water line leaks before they surface, fixing leaking hydrants, and improving meter inaccuracy.

In the past five years, the Water Authority has utilized the AWWA Water Audit methodology in determining its apparent and real water losses. In FY19, the utility's water audit was validated. For FY20, the Water Authority will improve the validated water audit inputs for apparent water loss, conduct a statistically significant number of small meter tests to support the water audit and strategic water loss plan. The utility will also conduct an apparent loss forensic analysis and identify areas of improvement for reducing water loss.

2018 Customer Opinion Survey

- 70% of customers are either very or somewhat satisfied with the condition of the water lines in the number of leaks that they may observe surfacing

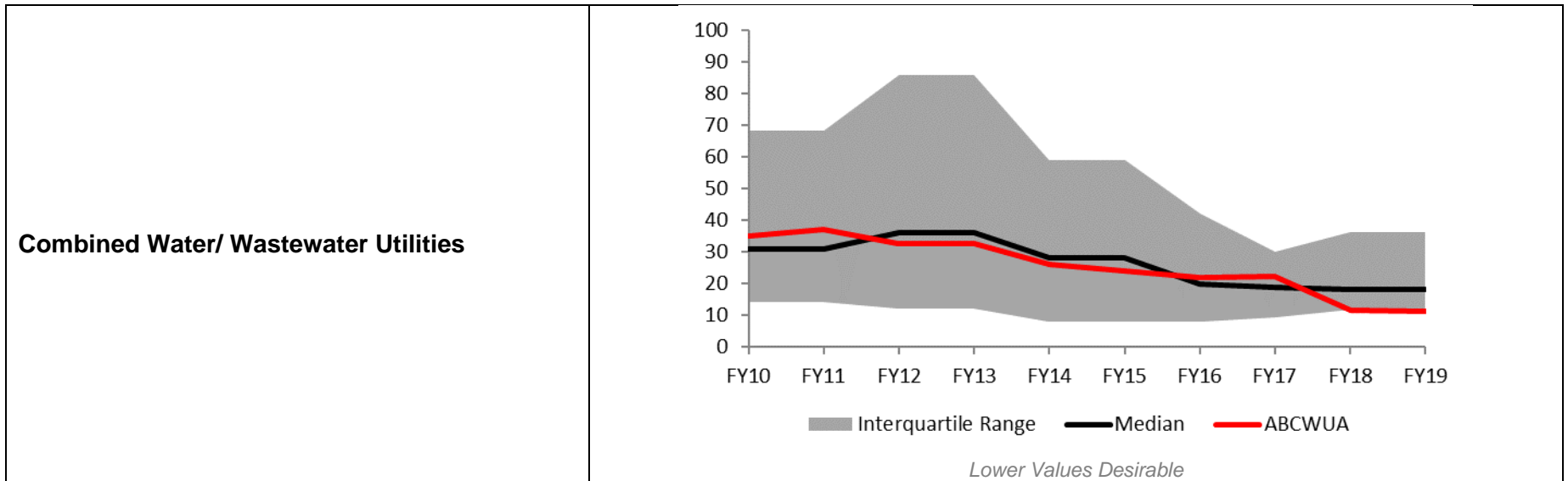
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

1-3 Water Distribution System Integrity

Performance Results

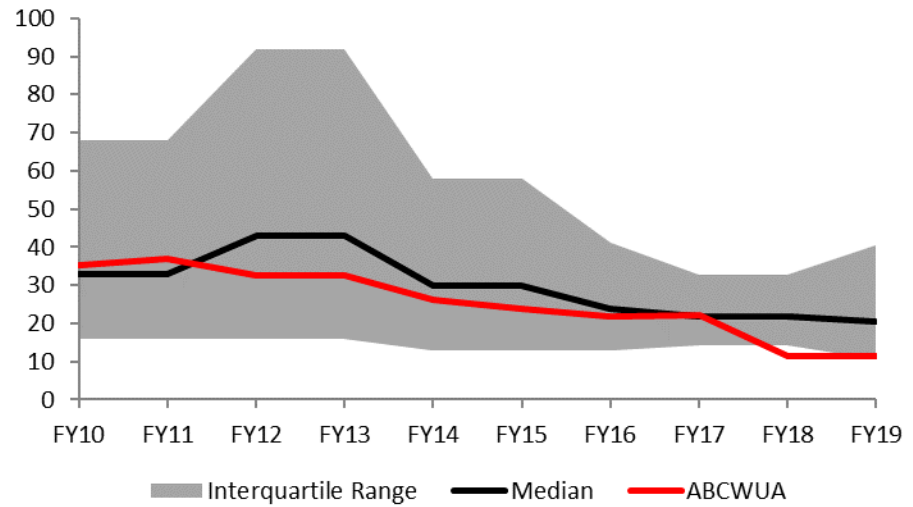
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the condition of the water distribution system	Number of leaks per 100 miles of distribution piping	18.5	21.8	22.2	11.4	11.3	11.2	Improve the condition and reliability of the water distribution system and reduce emergency repairs and water supply interruptions

Industry Benchmarks



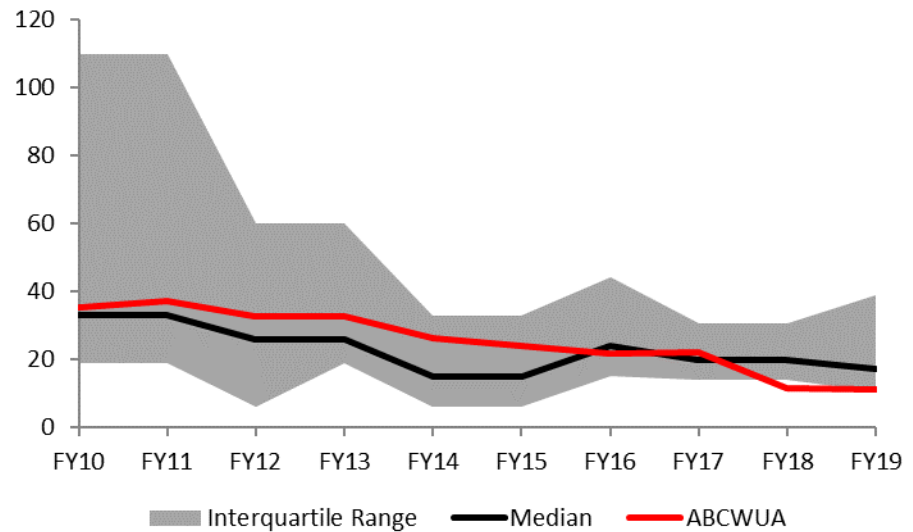
FY20 Performance Plan
Goal 1: Water Supply and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 1: Water Supply and Operations

Results Narrative

For a water utility, distribution system integrity has importance for health, customer service, operations, and asset management reasons. Excessive leaks and breaks result in increased costs due to an increased number of emergency repairs. Utilities use operational and maintenance (O&M) procedures designed to reduce the value of this measure. The cost of these (O&M) programs must be balanced against the cost of emergency repairs and the consequences of water supply interruptions. Comparing the value of this measure with other utilities can provide information on the rate that many utilities may find acceptable.

Measurement Status

The Water Authority's performance in this measure has been within the median range for the past three fiscal years. The Water Authority has adopted policy objectives for the past four fiscal years to increase spending on water line rehabilitation which will help reduce emergency repairs and water supply interruptions. Since FY08, the Water Authority has invested \$1 million in steel water line rehabilitation in addition to planned water line rehabilitation spending. The purpose for this objective is to target steel lines because they have a higher frequency of leaks than other material types in the system. The Water Authority included as an objective for FY20 to continue spending an additional \$1 million in steel water line rehabilitation. In FY11, the Water Authority completed a ten-year asset management plan for its small diameter water lines. This plan has been utilized in its capital planning in order to replace water lines that are past their useful life and have had multiple leaks on the same line segment.

2018 Customer Opinion Survey

- 71% of customers are either very or somewhat satisfied with the effectiveness of the Water Authority to repair leaks and the response time for restoring service

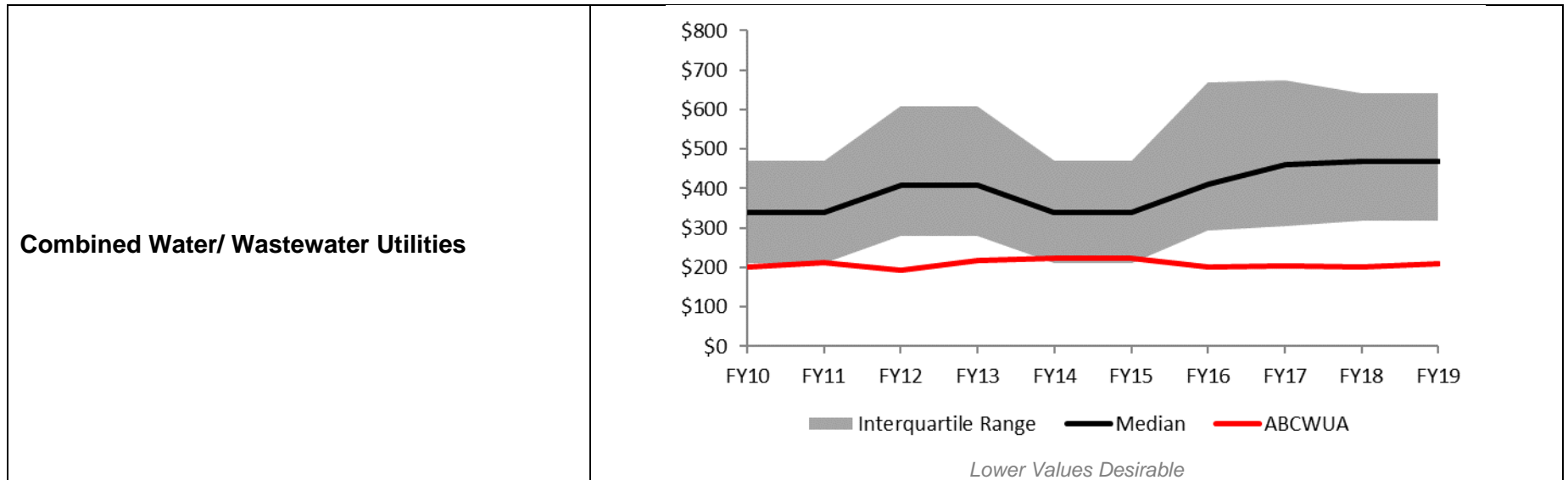
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

1-4 Operations and Maintenance Cost Ratio

Performance Results for O&M Cost per Account

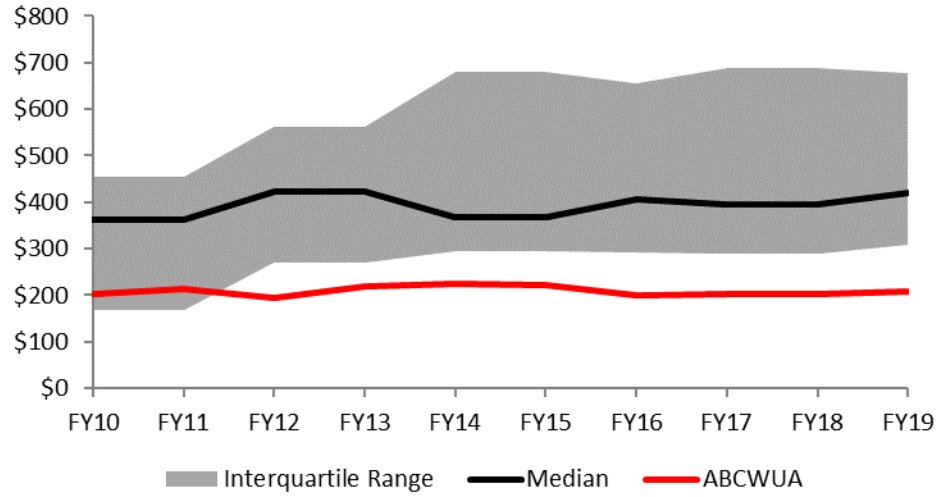
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify all utility costs related to operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	Total O&M costs and total number of active customer accounts	\$202	\$201	\$204	\$202	\$209	\$236	Maintain lower O&M costs without reducing customer level of service

Industry Benchmark for O&M Cost per Account



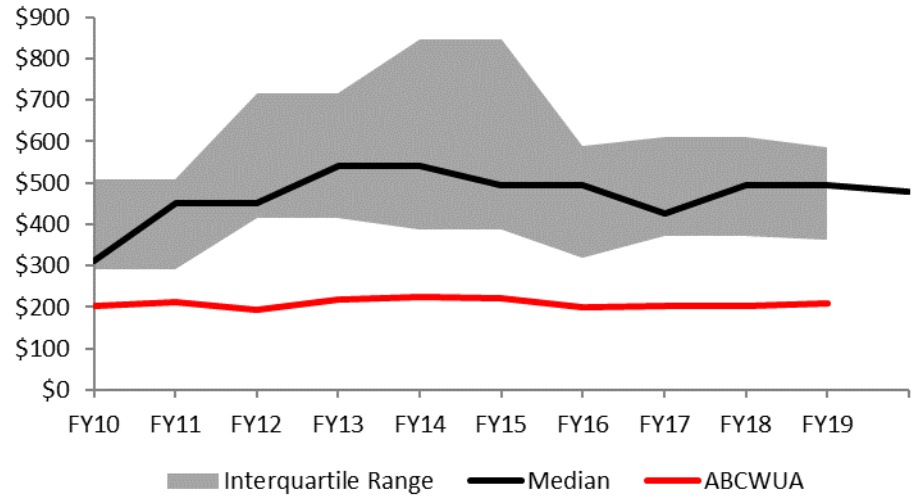
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



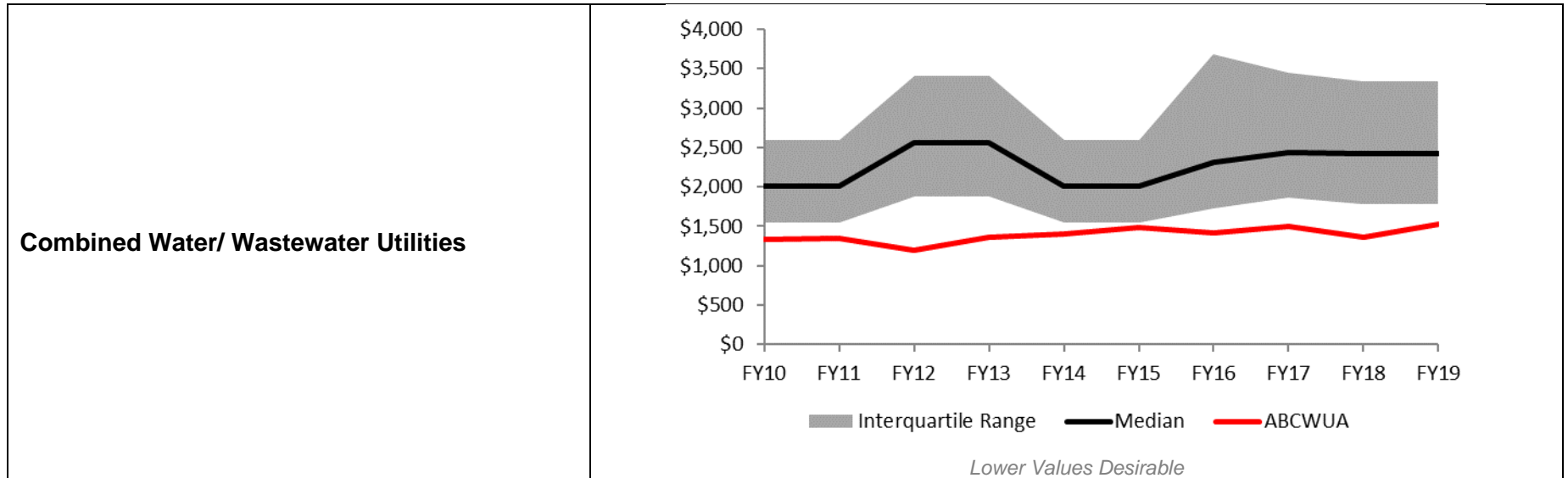
Lower Values Desirable

**FY20 Performance Plan
Goal 1: Water Supply and Operations**

Performance Results for O&M Cost per MG Distributed

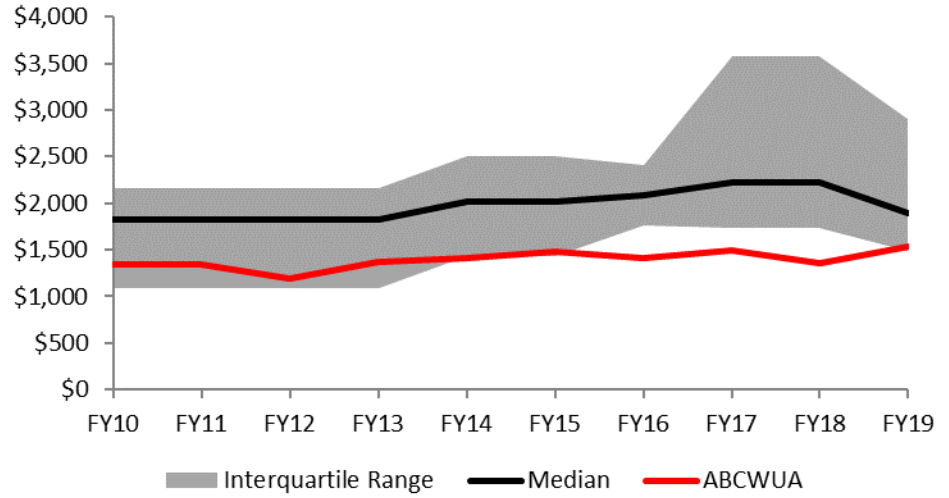
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify all utility costs related to operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	Total O&M costs and total volume of water distributed	\$1,421	\$1,410	\$1,495	\$1,359	\$1,531	\$1,666	Maintain lower O&M costs without reducing customer level of service

Industry Benchmark for O&M Cost per MG Distributed



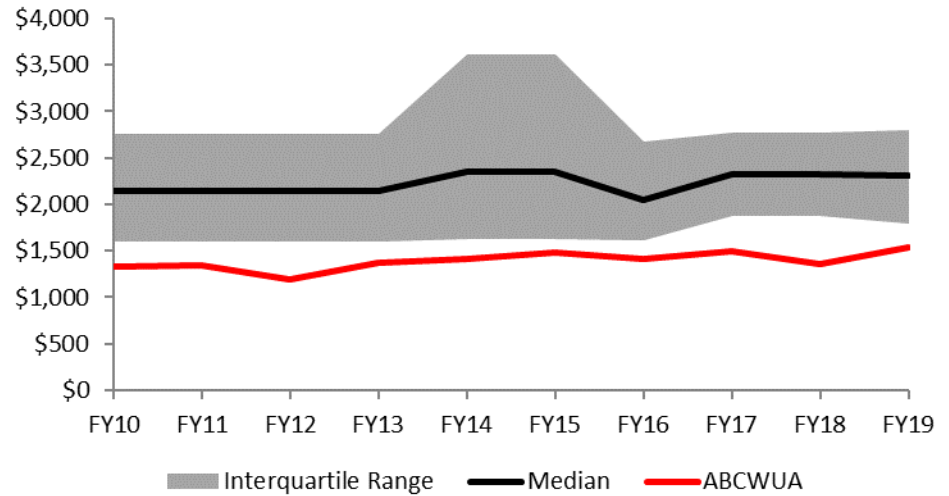
FY20 Performance Plan
Goal 1: Water Supply and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



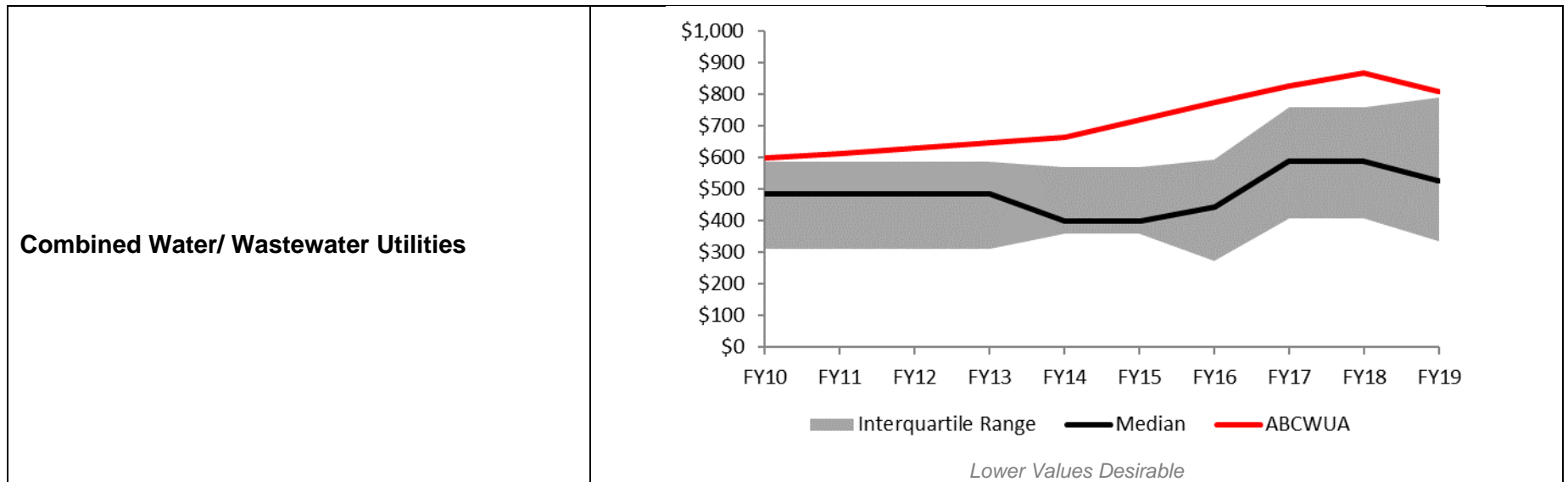
Lower Values Desirable

**FY20 Performance Plan
Goal 1: Water Supply and Operations**

Performance Results for O&M Cost of Treatment per MG

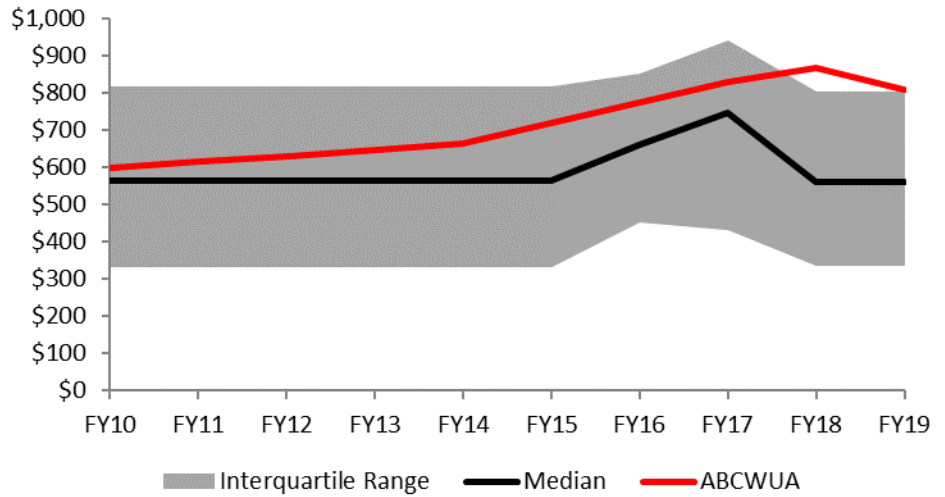
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify all utility costs related to operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	Total Direct O&M costs and total volume of water treated	\$823	\$775	\$828	\$868	\$808	\$886	Maintain lower O&M costs without reducing customer level of service

Industry Benchmarks



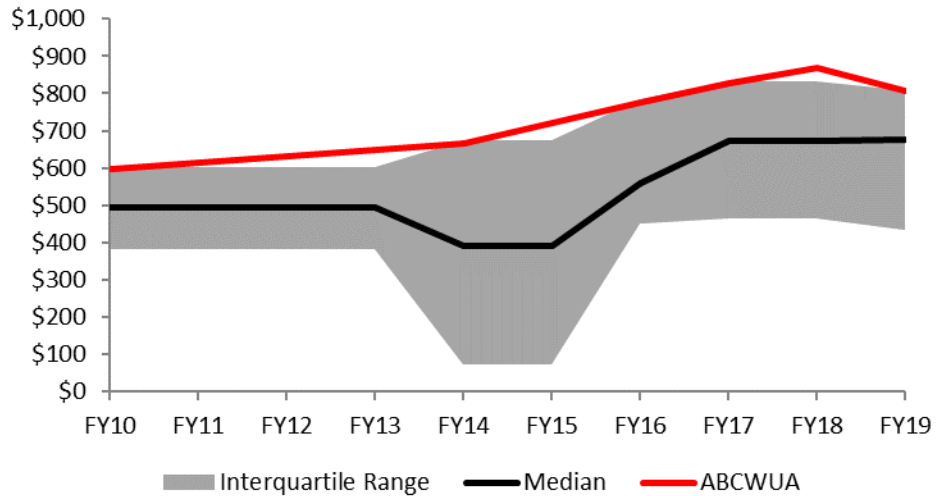
FY20 Performance Plan
Goal 1: Water Supply and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 1: Water Supply and Operations

Results Narrative

These related measures tally the cost of O&M per account and per million gallons of water processed. Comparing the value of this measure with other utilities can provide information regarding the status of current accepted practices.

Measurement Status

The Water Authority's performance in this measure has been above the median range for the past three fiscal years with the exception of Treatment O&M. Treatment O&M costs have increased with operating both surface and ground water supply systems which provides more sustainability and reliability to customers. In FY17, a 11-acre, 1.5-megawatt solar array was constructed which provides about 10 percent of the power needed to operate the water treatment plant. For FY20, the Water Authority will continue to work on the Partnership for Safe Water program to optimize its system operations and performance.

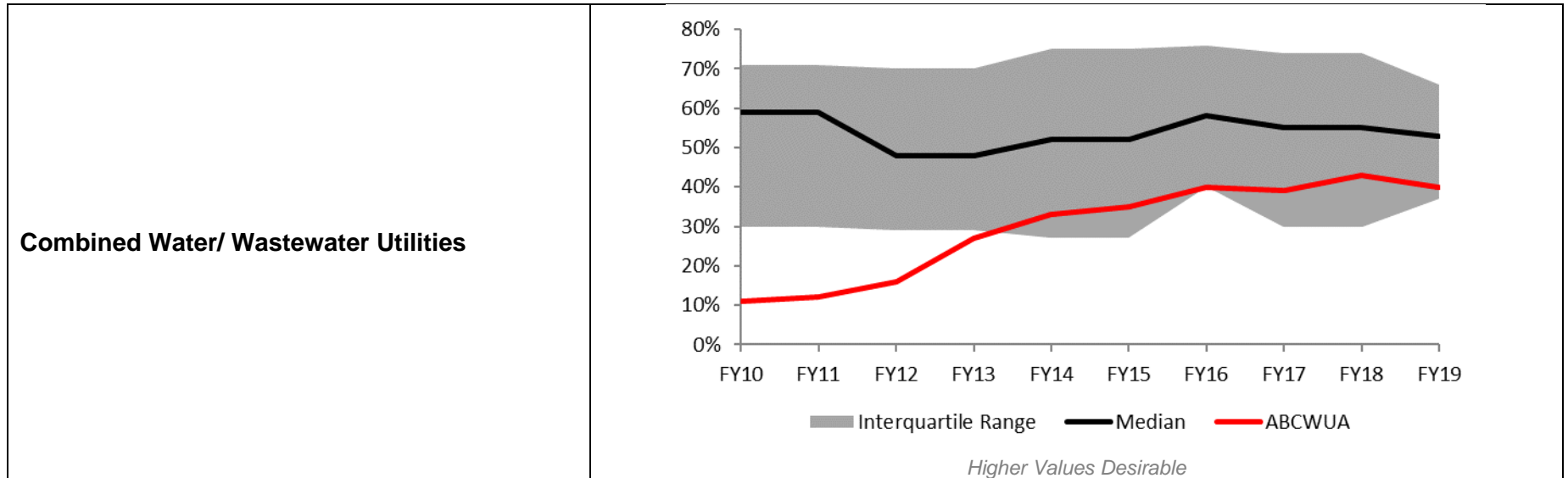
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

1-5 Planned Maintenance Ratio

Performance Results

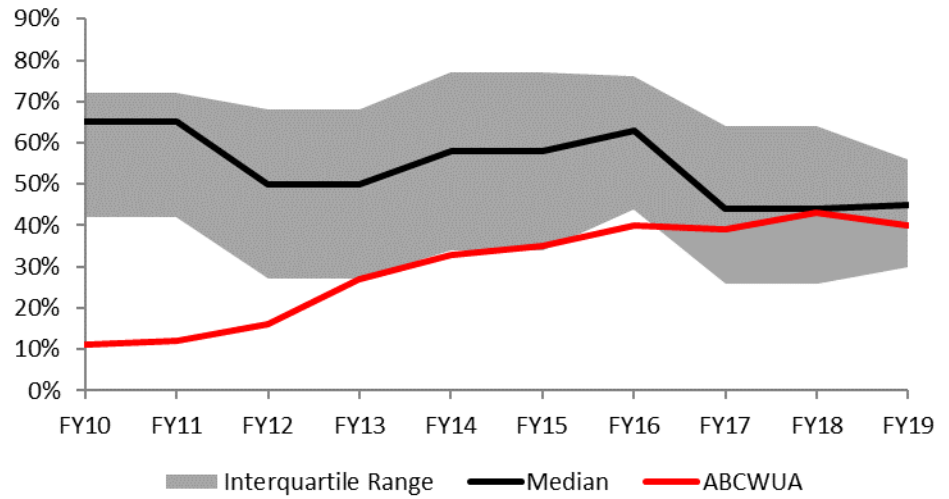
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19		FY20
Effectiveness	Comparison of how effectively the Water Authority is in investing in planned maintenance	Hours of planned maintenance compared to hours of corrective maintenance	41%	40%	39%	43%	40%	41%	Reduce emergency maintenance from system malfunctions

Industry Benchmarks



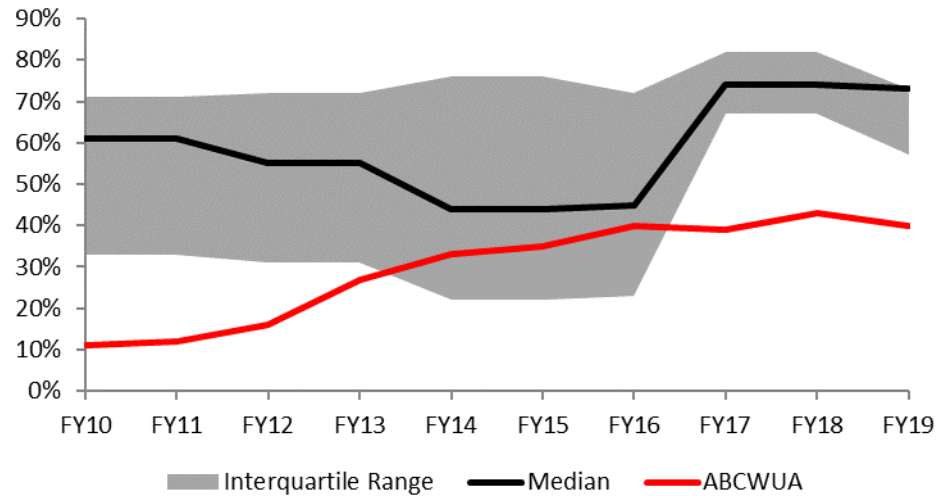
FY20 Performance Plan
Goal 1: Water Supply and Operations

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 1: Water Supply and Operations

Results Narrative

Planned maintenance includes preventive and predictive maintenance. Preventive maintenance is performed according to a predetermined schedule rather than in response to failure. Predictive maintenance is initiated when secondary monitoring signals from activities indicate that maintenance is due. All other maintenance is categorized as corrective (i.e., maintenance resulting from an asset that is no longer providing reliable service such as a breakdown, blockage, or leakage). Planned maintenance is preferable for assets for which the cost of repairs is high relative to the cost of corrective maintenance. The avoided cost includes both the cost of repair and the cost consequences of the service disruption, with the latter including an allowance for customer costs. Many utilities want to increase their percentage of planned maintenance activities and reduce their percentage of corrective maintenance activities. A higher ratio may indicate a reduction in emergency maintenance resulting from system malfunctions (e.g., pipeline breaks or pump failures).

Measurement Status

The Water Authority's performance in this measure has been within the median range for the past three fiscal years. Since FY08, the Water Authority has used this performance measure to identify gaps in planned/preventative maintenance activities. Over the past five fiscal years, the Water Authority has focused on increasing water operations planned maintenance for its groundwater facilities and the surface water plant. For the distribution system, the Water Authority will be increasing planned maintenance through its leak detection program mentioned in Performance Measure 1-2, Distribution System Water Loss. For FY20, there are two policy objectives with planned maintenance targets for both the ground and surface water facilities and the water distribution system.

Planned maintenance is a key component to the Water Authority's asset management program. In FY18, the Water Authority upgraded its work order system to integrate with the Water Authority's asset management program in order to collect and track its asset information. The purpose for this upgrade was to obtain better information to make better decisions on the Water Authority's assets.

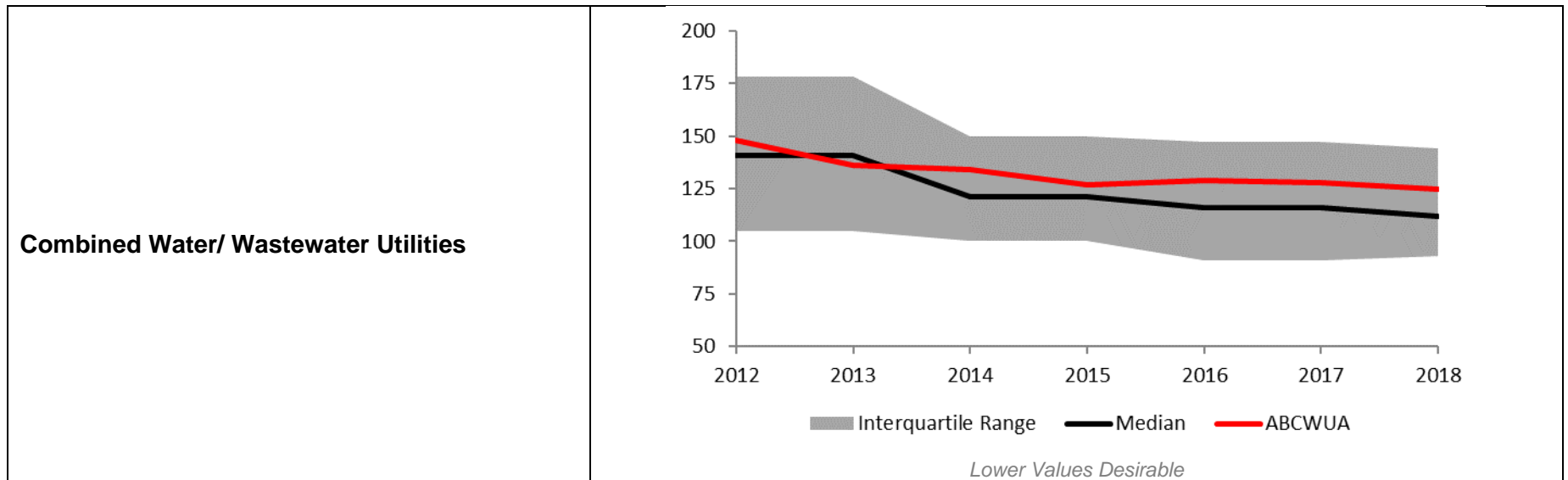
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

1-6 Water Use per Capita Consumption

Performance Results

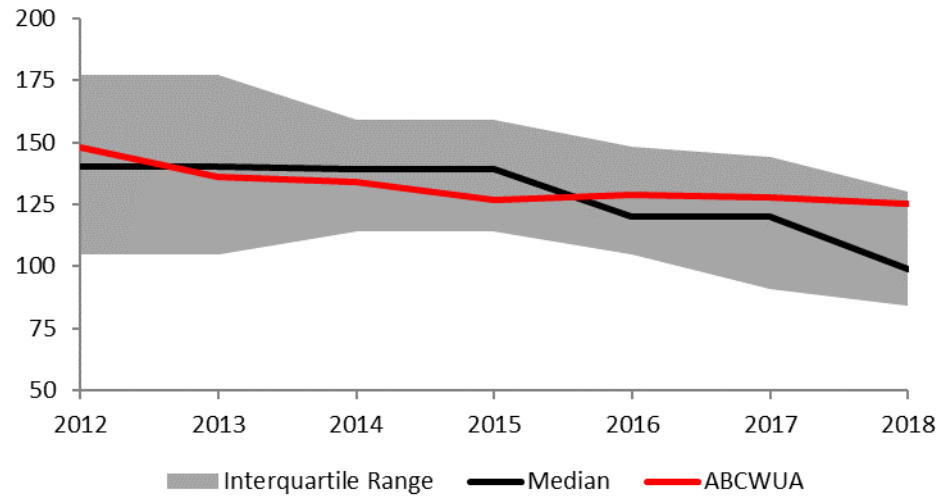
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				2014	2015	2016	2017	2018	
Effectiveness	Measure water savings by comparing the annual consumption and account growth by customer class and system-wide per capita usage	Gallons per person per day (GPCD)	128	127	128	128	125	120	Reduce water consumption to extend water resources and minimize environment impacts

Industry Benchmarks



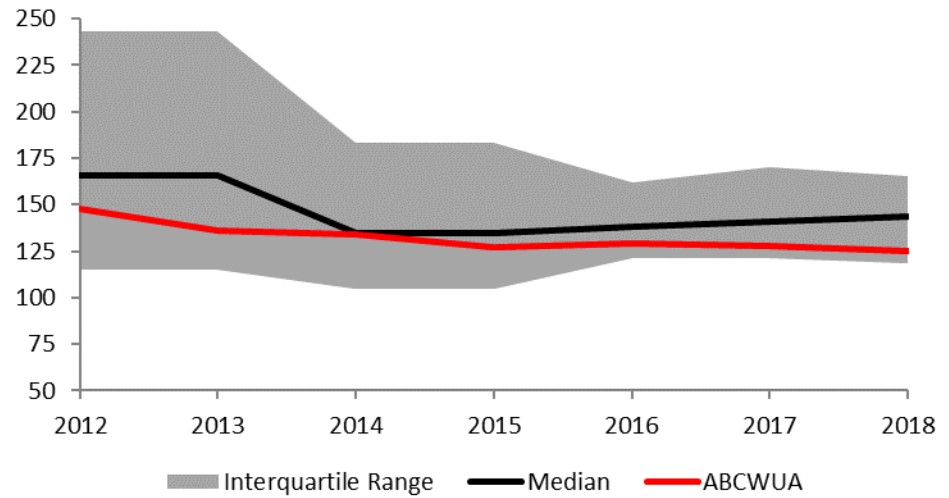
**FY20 Performance Plan
Goal 1: Water Supply and Operations**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4

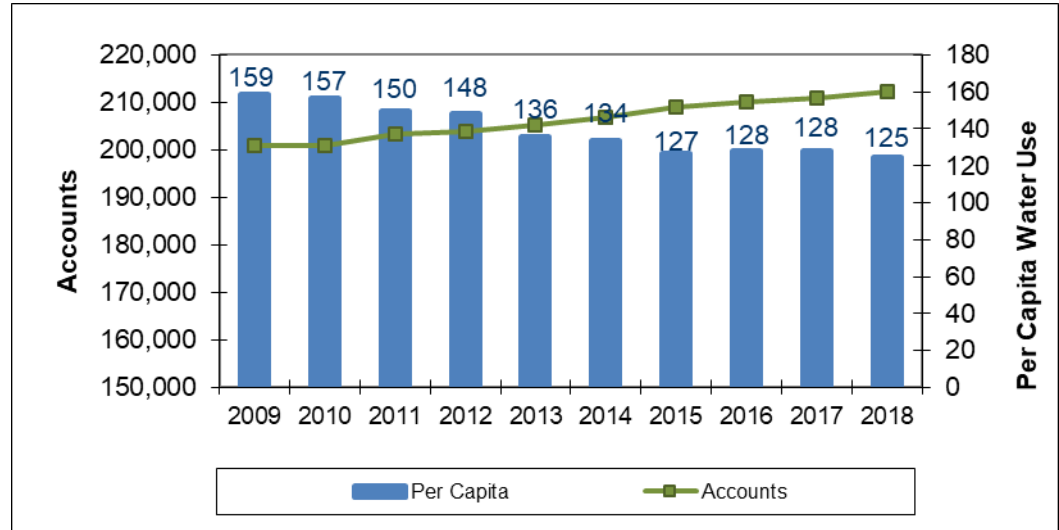


Lower Values Desirable

FY20 Performance Plan
Goal 1: Water Supply and Operations

Results Narrative

Water use has declined from 40 billion gallons in the mid-1990s to 30 billion gallons in 2018. Even though accounts have increased, water use declined by 50 percent. The graph to the right shows per capita water use compared to account growth from 2009 to 2018.



One reason for the success in water reduction is from the 1-2-3-2-1 “Water by the Numbers” program, which asks Water Authority customers to voluntarily limit their outdoor water usage to one day per week in March, two days a week in April and May and three days a week in the summer before ramping down in the fall. To the right is the diagram used to educate customers on the program.



2018 Customer Opinion Survey

- 66% of customers are either very or somewhat satisfied with the utility’s conservation programs
- 68% of customers either strongly or somewhat agree that they follow the Water by the Numbers program when setting their irrigation schedule

Goal 2

Wastewater Collection & Operations


Guiding Goal Statement

Provide reliable, safe and affordable wastewater collection, treatment and reuse systems to protect the health of the Middle Rio Grande Valley by safeguarding the regional watershed, minimizing environmental impacts, and returning quality water to the Rio Grande for downstream users.

Goal Performance Scorecard

Ref #	Performance Measure	Status	Trend
2-1	Sewer Overflow Rate	■	■
2-2	Collection System Integrity	■	■
2-3	Wastewater Treatment Effectiveness Rate	■	■
2-4	O&M Cost Ratios: O&M Cost per account	▲	▲
2-4	O&M Cost Ratios: O&M Cost per MG processed	▲	▲
2-4	O&M Cost Ratios: Direct cost of treatment per MG	■	■
2-5	Planned Maintenance Ratio	■	■
Overall Goal Status		■	■

Performance Key

 Excellent
  Good
  Fair
  Poor

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Linkage of Objectives to Performance Measures

FY20 Objectives	Measure Reference
Televise and assess the condition of approximately five percent of the small diameter sanitary sewer system by the end of the 4th Quarter of FY20.	2-1 2-2
Complete the Capacity Management Operations Maintenance (CMOM) Program Self-Assessment by end of 2nd Quarter of FY20.	2-1 2-2
Develop and implement a process to capture new construction closed circuit television for inclusion in Maximo and ITpipes Repository after GIS unique identifiers are established; Complete process by end of 4th Quarter of FY20.	2-1 2-2
Monitor compliance with the Water Authority's Cross Connection Prevention and Control Ordinance. Obtain a compliance rate goal of 75%.	2-2 2-3
Implement the Fats, Oils, and Grease (FOG) Policy to reduce impacts on the sewer system by inspecting each Food Service Establishment (FSE) once every three years, working with the Collections section with Sanitary Sewer Overflow (SSOs) investigations, and convene FOG Task Force of other governmental entities to coordinate efforts to reduce FOG discharges. Track and report the number of SSOs due to FOG compared with previous years.	2-2 2-3
Limit overall permit excursions to no more than 5 operating discharge permit violations to comply with effluent quality standards through the end of the 4th Quarter of FY20.	2-3
Beneficially reuse biosolids by diverting 30% of the biosolids to compost through the end of the 4th Quarter of FY20.	2-3
Continue implementation of the Reclamation Rehabilitation Asset Management Plan by planning, designing and constructing reclamation facility improvements through the end of the 4th Quarter of FY19.	2-3
Continue work on the Partnership for Clean Water program for the water reclamation treatment to optimize system operations and performance; Continue work on outstanding items identified from the Phase 3 Self-Assessment that are not yet considered optimized and submit a progress report to AWWA by the end of the 4th Quarter of FY20.	2-4
Complete Waste Water Plant Preventive Maintenance to Corrective Maintenance ratio to at least 45% of all completed maintenance labor hours by the end of the 4th Quarter of FY20.	2-5

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Performance Measure Division Responsibility

Ref #	Performance Measure	Operations Plant	Operations Field	Operations Compliance
2-1	Sewer Overflow Rate		✓	
2-2	Collection System Integrity		✓	
2-3	Wastewater Treatment Effectiveness Rate	✓		✓
2-4	O&M Cost Ratios: O&M Cost per account	✓	✓	
2-4	O&M Cost Ratios: O&M Cost per MG processed	✓		
2-4	O&M Cost Ratios: Direct cost of treatment / MG	✓		
2-5	Planned Maintenance Ratio	✓	✓	

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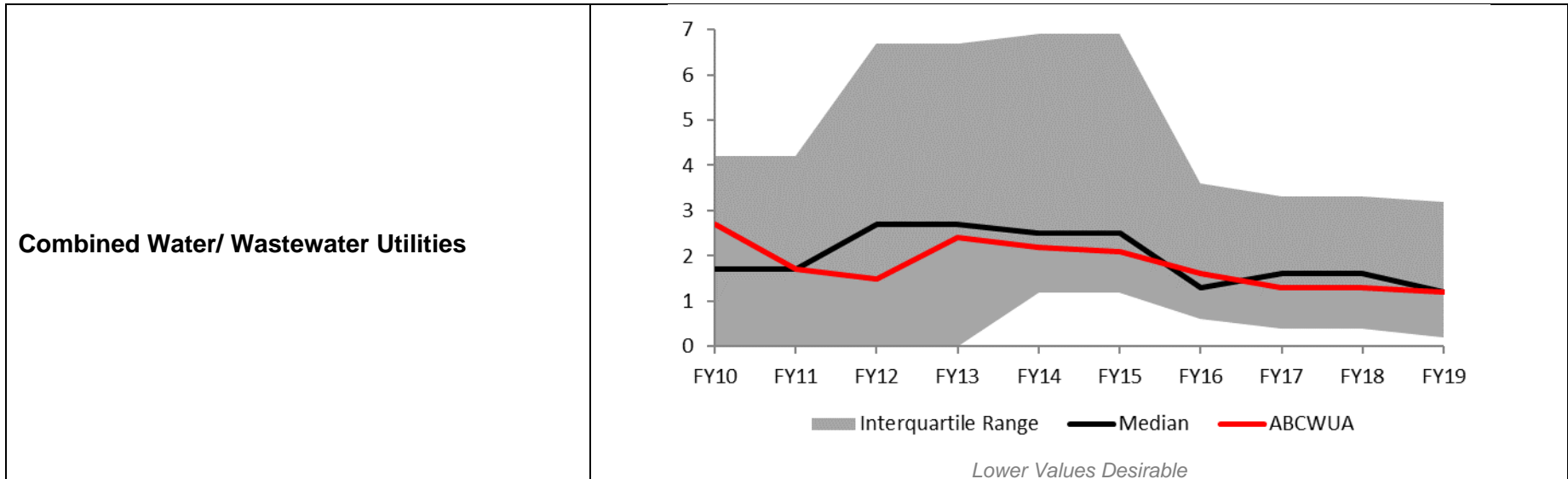
**FY20 Performance Plan
Goal 2: Wastewater Collection and Operations**

2-1 Sewer Overflow Rate

Performance Results

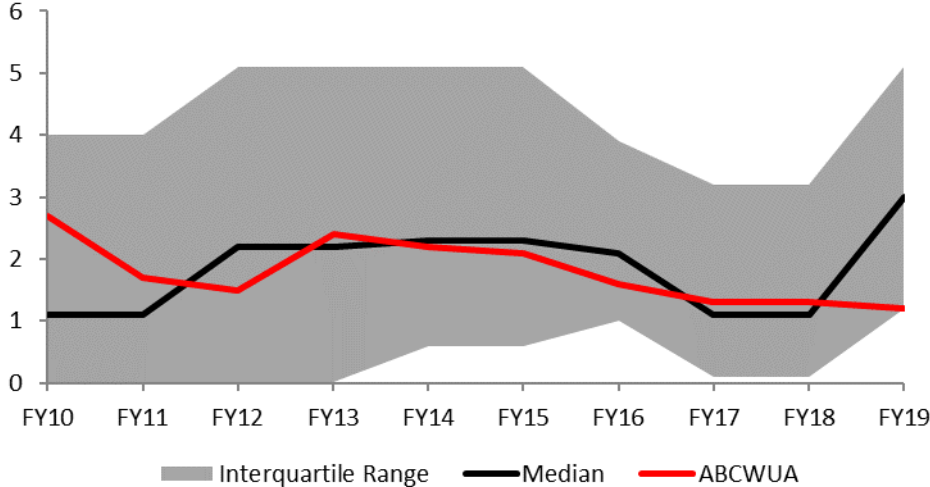
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the condition of the collection system and the effectiveness of routine maintenance	Number of sewer overflows per 100 miles of collection piping	1.4	1.4	1.3	1.3	1.2	1.2	Improve the condition and reliability of the collection system and reduce customer complaints

Industry Benchmarks



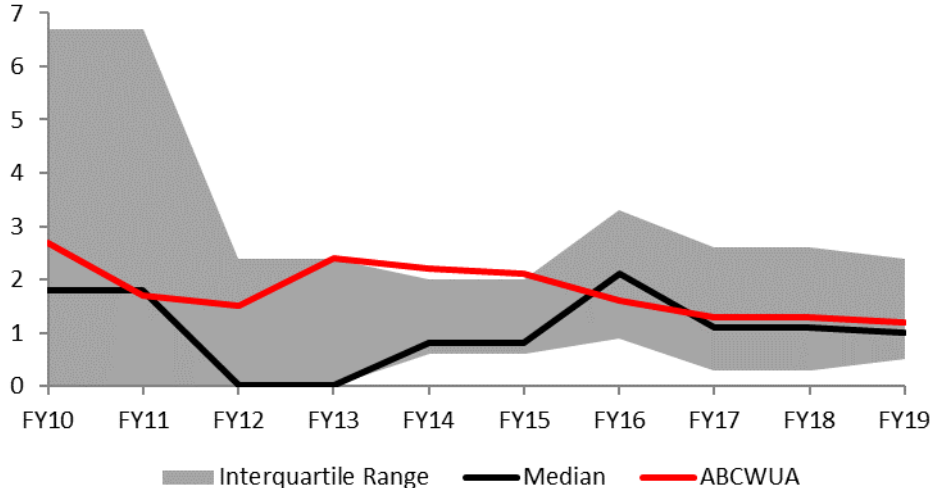
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Results Narrative

Overflows are good measures of collection system condition and the effectiveness of maintenance activities. This measure is intended to measure overflows created by conditions within collection system components under control of the utility. This measure does not include conditions which are deemed outside control of the utility such as general flooding from wet weather conditions.

Measurement Status

The Water Authority's performance in this measure has been within the median range for the past three fiscal years and is on-target to maintain a very low overflow rate for the next two fiscal years. The Water Authority has been using its GIS in connection with its upgraded work order system based on asset management principles to analyze sanitary sewer overflows. For FY14, the Collection Section implemented the CMOM activities from the CMOM report completed in FY13. The FY20 Objectives will help to improve the monitoring, cleaning, and response procedures related to sewer overflows.



Every year, the Water Authority provides bill inserts reminding customers not to pour cooking grease down the drain as this causes backups and overflows in the collection system; this usually occurs during the holidays.

2018 Customer Opinion Survey

- 69% of customers are either very or somewhat satisfied with the condition of the sewer lines in the number of overflows that they may observe
- 66% of customers are either very or somewhat satisfied with the effectiveness of the Water Authority to respond to overflows or backups and the response time for restoring service

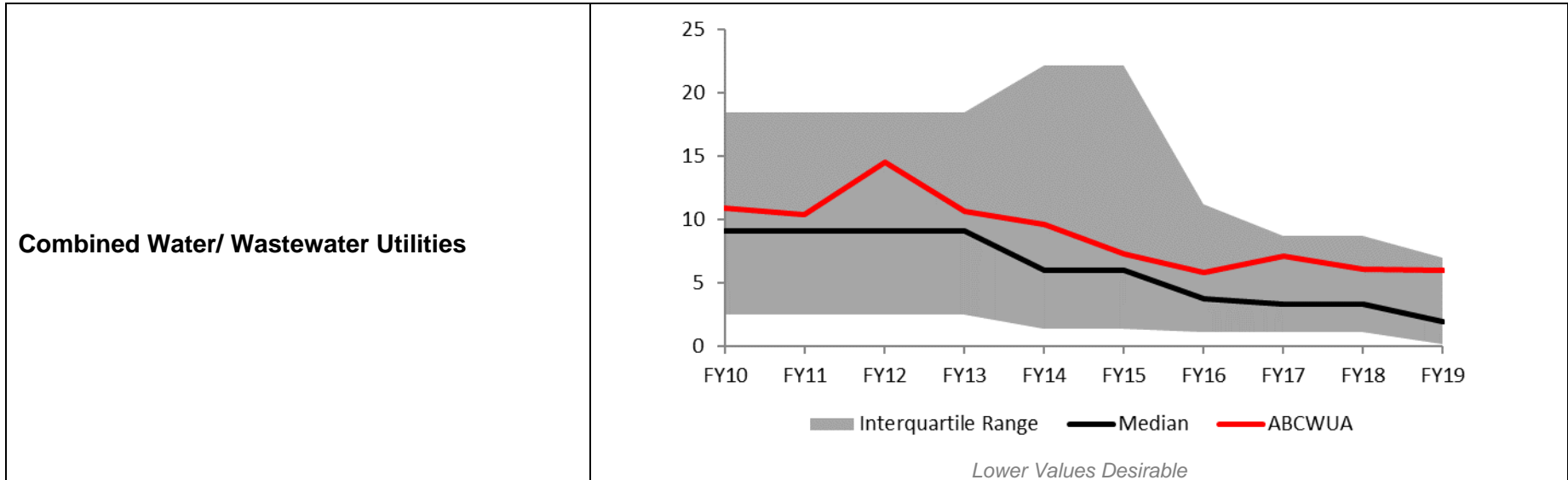
**FY20 Performance Plan
Goal 2: Wastewater Collection and Operations**

2-2 Collection System Integrity

Performance Results

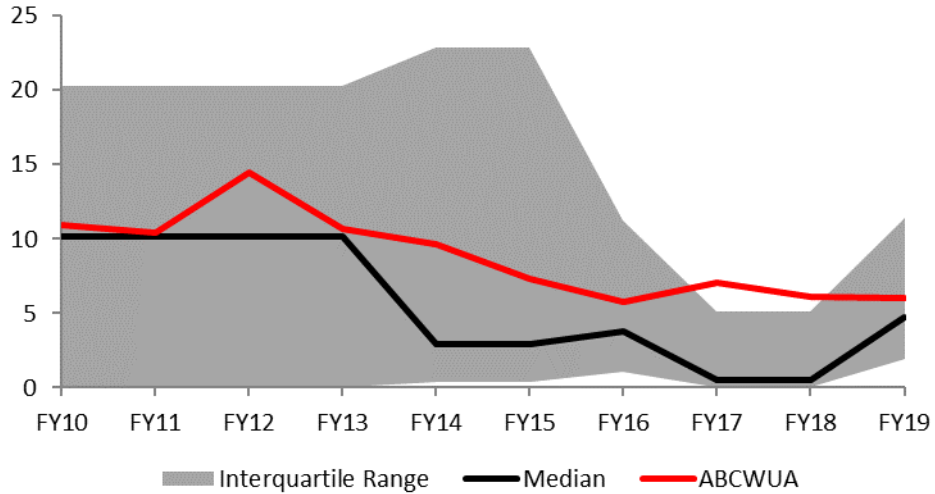
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Measure of the condition of a sewage collection system	Number of collection system failures each year per 100 miles of collection system piping	6.3	5.8	7.1	6.1	6.0	6.1	Improve the condition and capacity of the collection system and minimize catastrophic failures

Industry Benchmarks



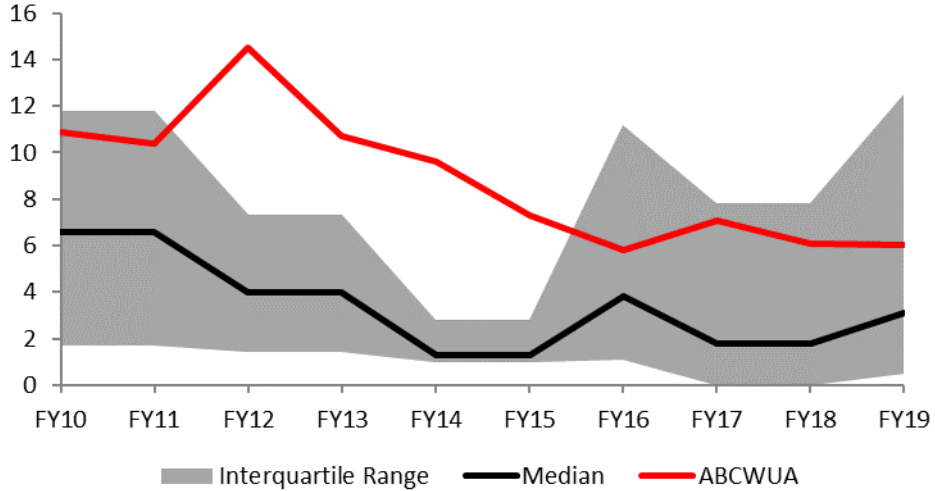
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Results Narrative

When tracked over time, a utility can compare its failure rate to those at other utilities and it can evaluate whether its own rate is decreasing, stable, or increasing. When data is maintained by the utility to characterize failures according to pipe type and age, type of failure, and cost of repairs, better decisions regarding routine maintenance and replacement/renewals can be made.

Measurement Status

The Water Authority's performance in this measure has been within the median range for the past three fiscal years. For FY11, the Water Authority completed ten-year asset management plans for both its small and large diameter sewer lines. These plans will be utilized for the utility's capital planning in order to help minimize expensive catastrophic failures. For FY20, there is a policy objective to assess the condition of small diameter sanitary sewer lines as a part of the CMOM program.

2018 Customer Opinion Survey

- 94% of customers are either very or somewhat satisfied with the reliability of wastewater collection
- 77% of customers are either very or somewhat satisfied with the effectiveness of the Water Authority to control odors from sewer lines or treatment facilities

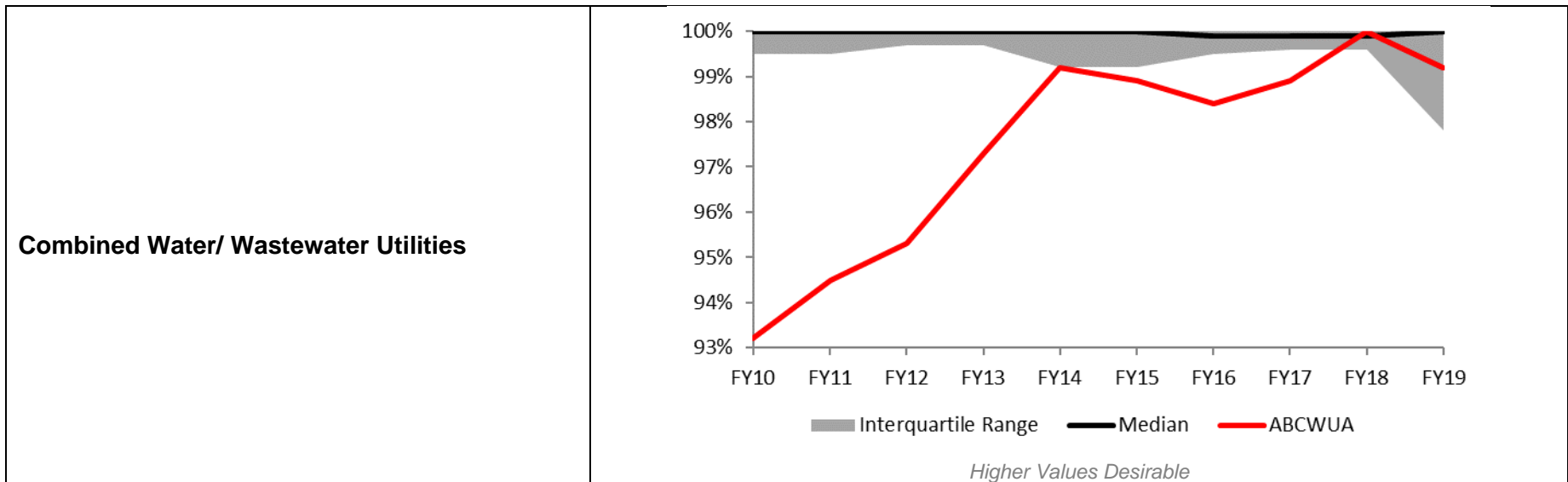
**FY20 Performance Plan
Goal 2: Wastewater Collection and Operations**

2-3 Wastewater Treatment Effectiveness Rate

Performance Results

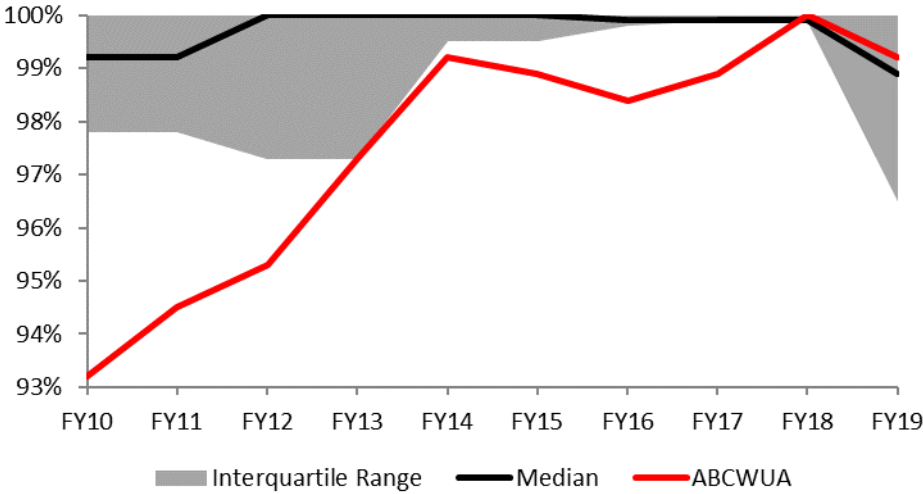
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Quality	Quantify the Water Authority's compliance with the effluent quality standards in effect at its wastewater treatment facilities	Percent of time each year that an individual wastewater treatment facility is in full compliance with applicable effluent quality requirements	99.1%	98.4%	98.9%	100.0%	99.2%	99.7%	Minimize environmental impacts to the river by returning high quality water to the river

Industry Benchmarks



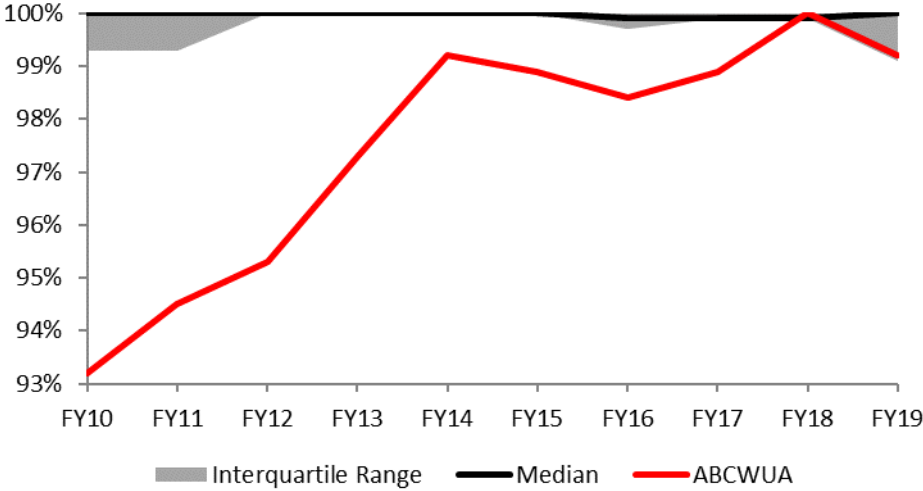
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Results Narrative

The wastewater treatment effectiveness rate allows a utility to compare its treatment effectiveness rate for its facility with those at other utilities. It also can track its individual facility performances over time. Ideally, the percentage of days in a year that the treatment facility satisfies all discharge permit requirements should be 100%. A number lower than this indicates that a violation occurred during the year.

Measurement Status

The Water Authority's performance in this measure has been within the median range for last three fiscal years. The Water Authority's goal in for FY20 is to have no more than five non-compliance days. In FY11, the Water Authority completed conversion to ultraviolet disinfection to eliminate use of chlorine for safety, security and to protect river environment. The Water Authority will continue to meet its performance targets during major rehabilitation activities at the wastewater treatment plant over the next five fiscal years. The utility is close to completing a \$250 million overhaul of the treatment plant.



The Water Authority received the NACWA **Silver** Peak Performance Award in 2013-2014, 2016-2018 which recognizes public wastewater treatment facilities for their outstanding compliance records.

Also, for FY12, the Water Authority developed several policy objectives to improve the processes and procedures for wastewater quality compliance reporting. The Water Authority created a new Compliance Division in FY10 to better improve and consolidate all its compliance functions. For FY19, the Compliance Division will continue to work on the reporting on its performance metrics related to compliance with the Sewer Use Wastewater Control Ordinance.

2018 Customer Opinion Survey

- 88% of customers feel that it is very or somewhat important that the Water Authority should return high quality treated water back to the river

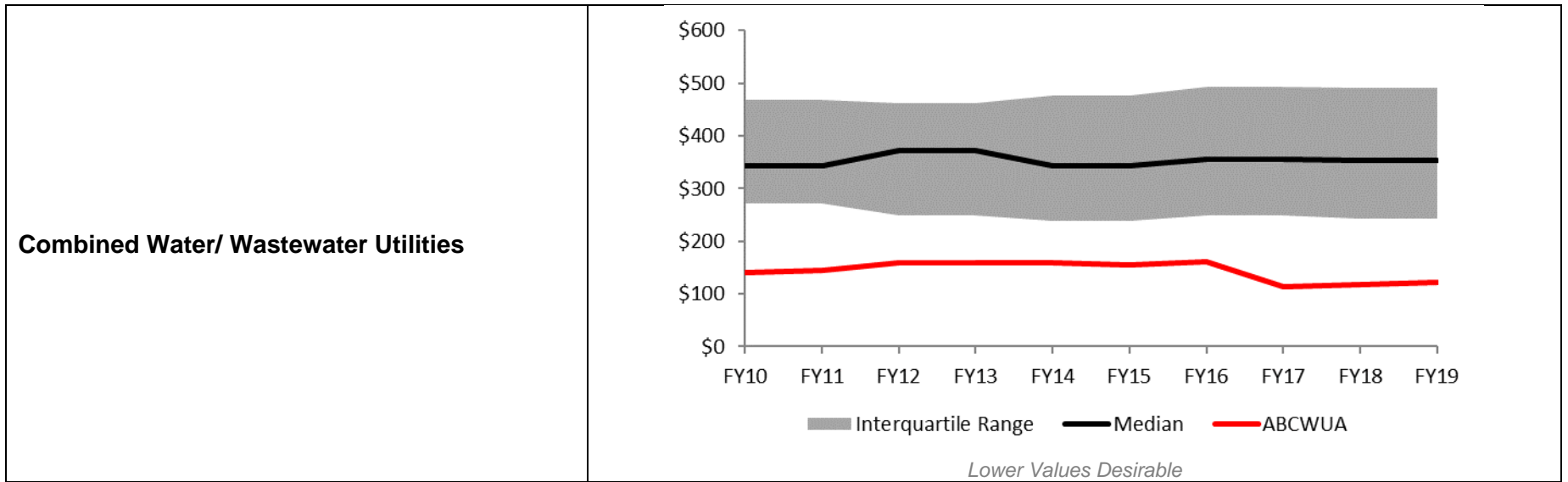
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

2-4 Operations and Maintenance Cost Ratio

Performance Results for O&M Cost per Account

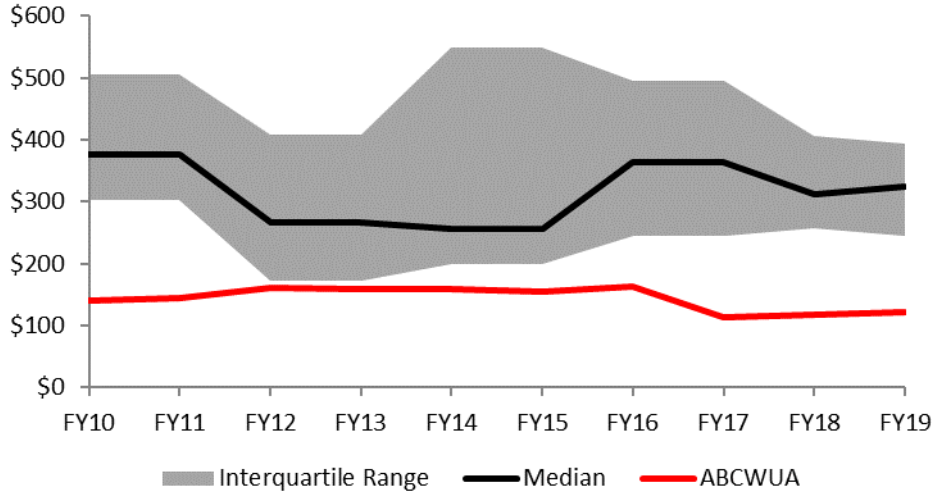
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify all utility costs related to operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	Total O&M costs and total number of active customer accounts	\$131	\$162	\$114	\$117	\$122	\$125	Maintain lower O&M costs without reducing customer level of service

Industry Benchmark for O&M Cost per Account



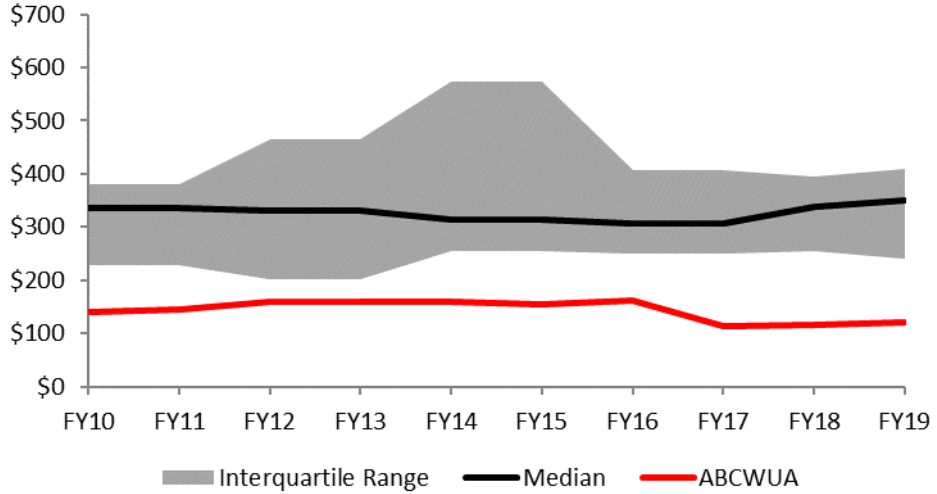
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



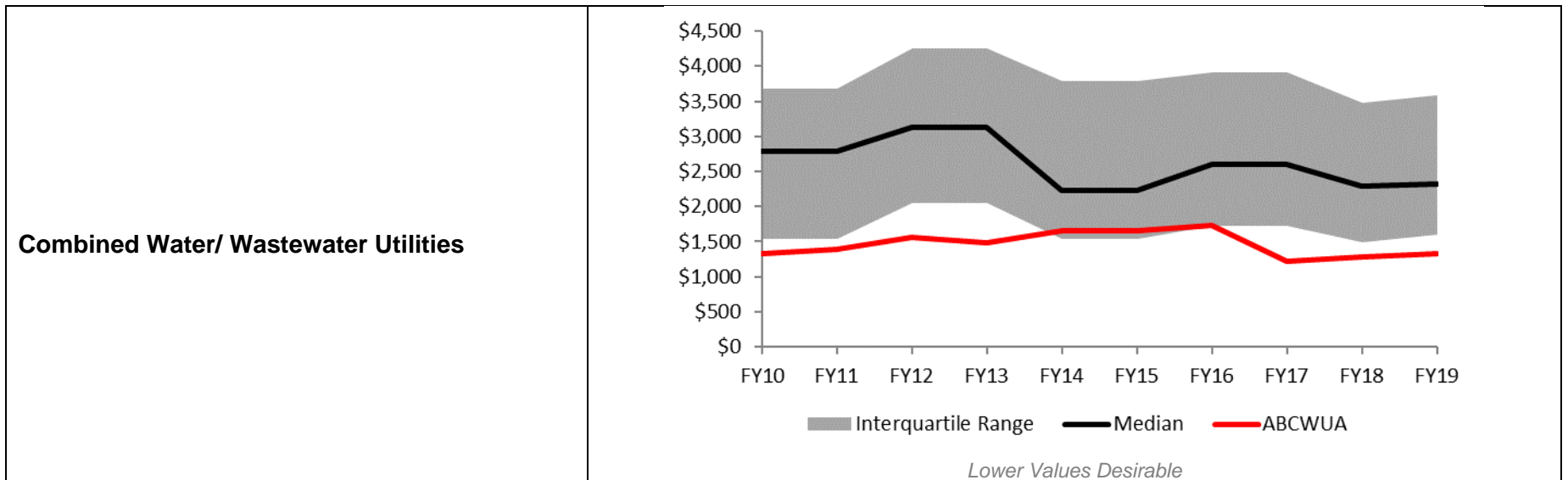
Lower Values Desirable

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Performance Results for O&M Cost per MG Collected

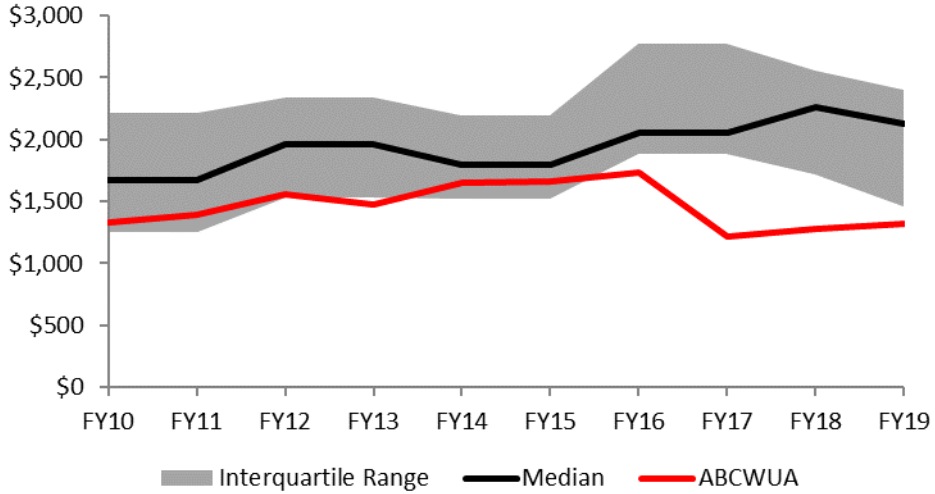
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify all utility costs related to operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	Total O&M costs and total wastewater collected	\$1,410	\$1,735	\$1,216	\$1,278	\$1,325	\$1,319	Maintain lower O&M costs without reducing customer level of service

Industry Benchmark for O&M Cost per MG Collected



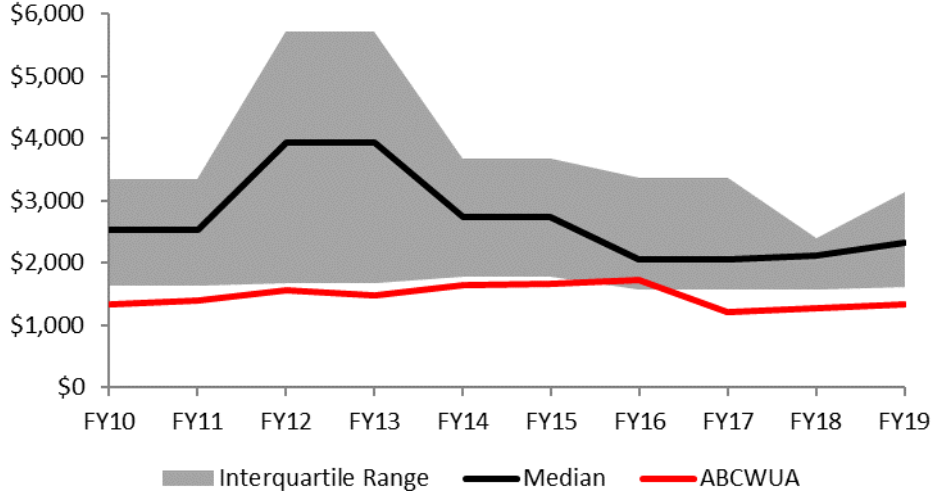
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



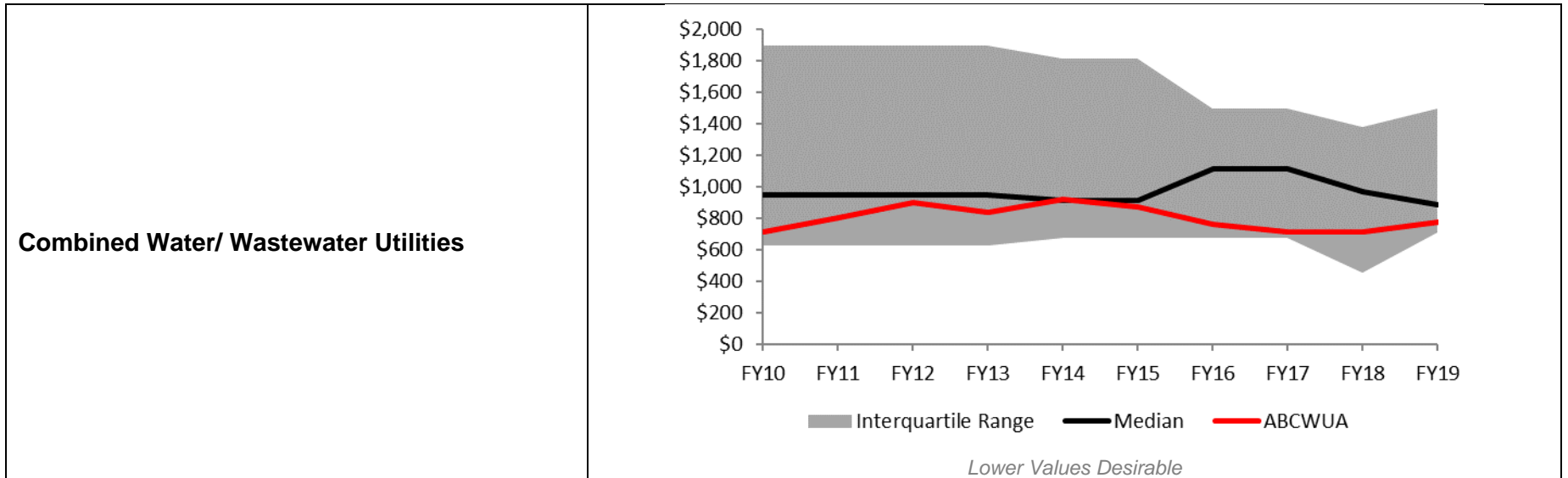
Lower Values Desirable

**FY20 Performance Plan
Goal 2: Wastewater Collection and Operations**

Performance Results for O&M Cost of Treatment per MG

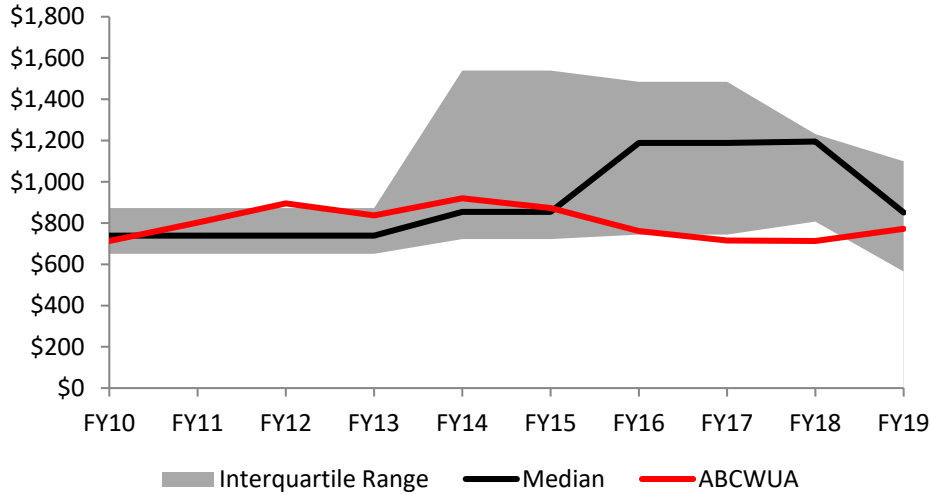
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify all utility costs related to operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	Total Direct O&M costs and total wastewater treated	\$729	\$761	\$715	\$713	\$772	\$821	Maintain lower O&M costs without reducing customer level of service

Industry Benchmark for O&M Cost of Treatment per MG



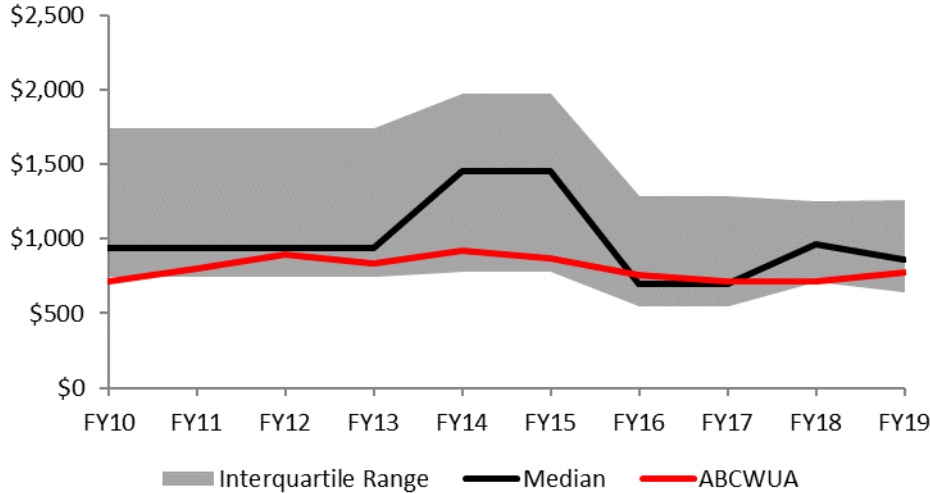
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Results Narrative

These related measures tally the cost of O&M per account and per million gallons of wastewater processed. Comparing the value of this measure with other utilities can provide information regarding the status of current accepted practices.

Measurement Status

The Water Authority's performance in this measure has been above or within the median range for the past three fiscal years and is on-target to maintain this performance for the next two fiscal years.

A FY10 policy objective involved constructing ultraviolet disinfection facilities and replacing the current chlorine gas for disinfection and sulfur dioxide gas for dechlorination at the wastewater treatment plant. This project was completed in FY11, and it has helped to reduce operation costs, provide cleaner water that is returned to the river, and meet effluent quality requirements.

In FY19, the Water Authority received recognition from the Partnership for Clean Water for treatment operations. The Partnership for Clean Water provides self-assessment and optimization programs so that utilities have the tools to optimize wastewater utility operation and help ensure public health protection. For FY20, the Water Authority will continue to work on the Partnership for Clean Water program to optimize its system operations and performance.

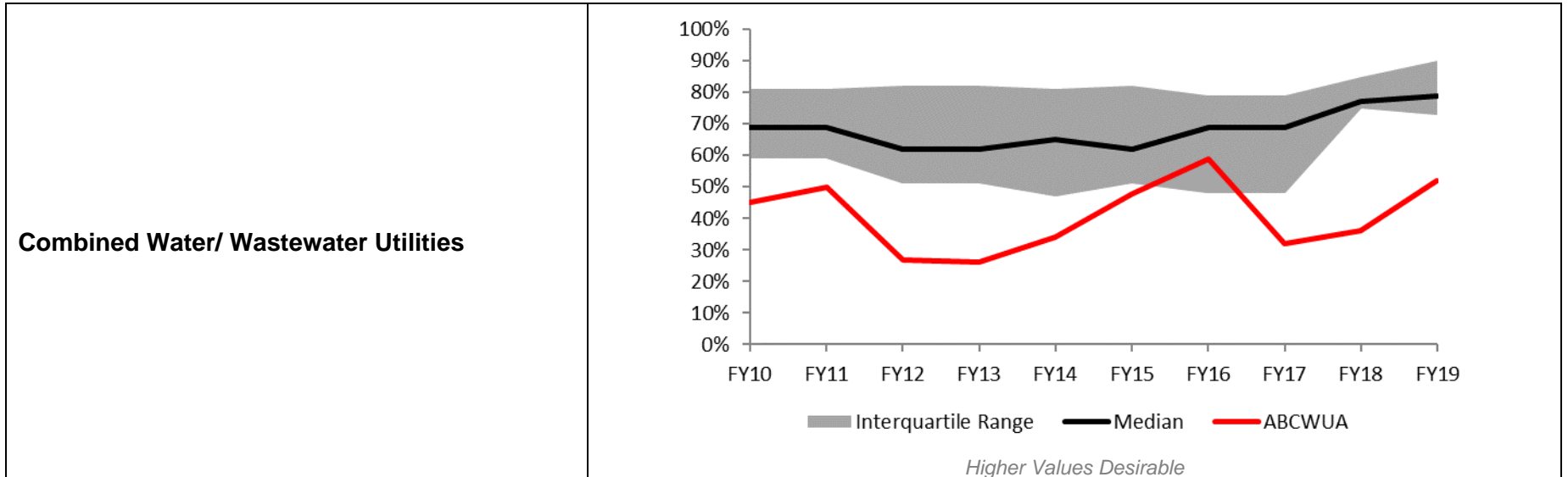
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

2-5 Planned Maintenance Ratio

Performance Results

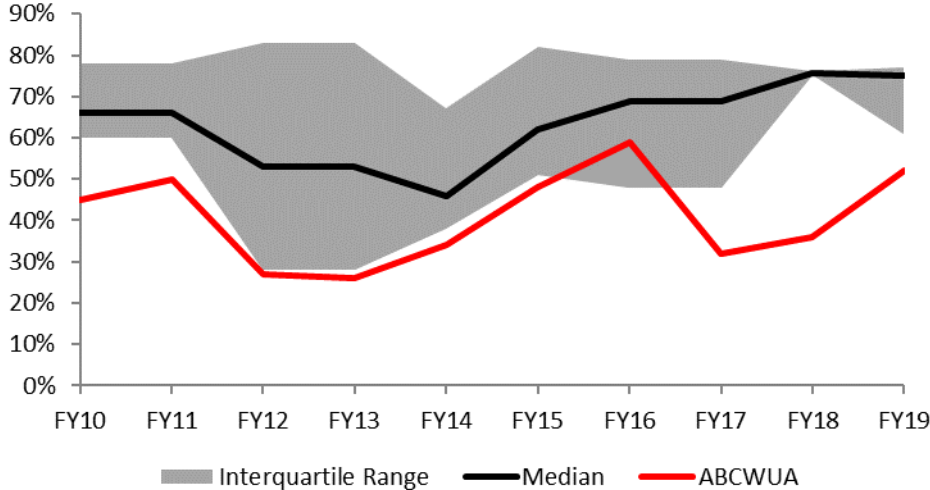
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Comparison of how effectively the Water Authority is in investing in planned maintenance	Hours of planned maintenance compared to hours of corrective maintenance	42%	59%	32%	36%	52%	39%	Reduce emergency maintenance from system malfunctions

Industry Benchmarks



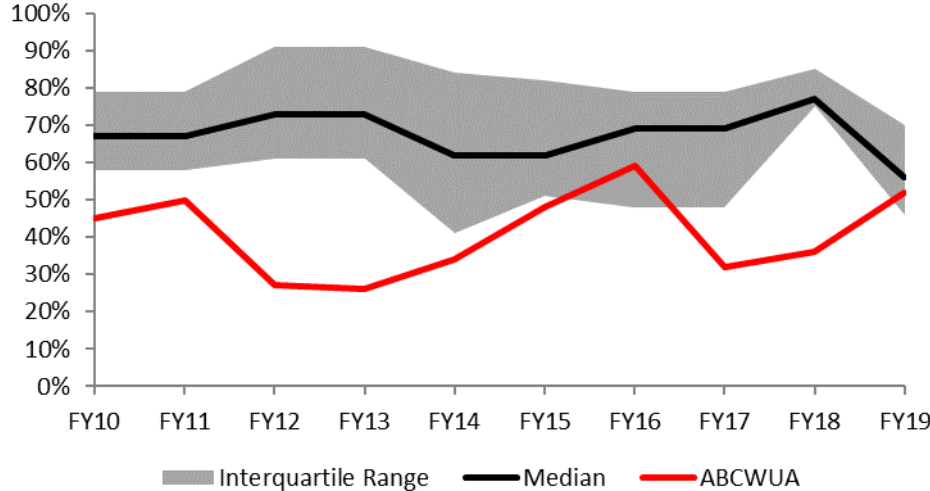
FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

Results Narrative

Planned maintenance includes preventive and predictive maintenance. Preventive maintenance is performed according to a predetermined schedule rather than in response to failure. Predictive maintenance is initiated when secondary monitoring signals from activities indicate that maintenance is due. All other maintenance is categorized as corrective (i.e., maintenance resulting from an asset that is no longer providing reliable service such as a breakdown, blockage, or leakage). Planned maintenance is preferable for assets for which the cost of repairs is high relative to the cost of corrective maintenance. The avoided cost includes both the cost of repair and the cost consequences of the service disruption, with the latter including an allowance for customer costs. Many utilities want to increase their percentage of planned maintenance activities and reduce their percentage of corrective maintenance activities. A higher ratio may indicate a reduction in emergency maintenance resulting from system malfunctions.

Measurement Status

The Water Authority's performance in this measure has been below the median range for the past three fiscal years, but there has been gradual improvement with the Plant Division increasing its planned maintenance work. For the past five fiscal years, there have been objectives to increase planned maintenance work orders at the wastewater treatment plant. These objectives will also help the Water Authority meet its performance targets mentioned in Performance Measure 2-3, Wastewater Treatment Effectiveness Rate. For FY20, there is a policy objective with planned maintenance targets for the wastewater treatment plant.

Planned maintenance is a key component to the Water Authority's asset management program. In FY18, the Water Authority upgraded its work order system to integrate with the Water Authority's asset management program in order to collect and track its asset information. The purpose for this upgrade was to obtain better information to make better decisions on the Water Authority's assets.

FY20 Performance Plan
Goal 2: Wastewater Collection and Operations

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Goal 3

Customer Services

Guiding Goal Statement

Provide quality customer services by communicating effectively, billing accurately, and delivering water and wastewater services efficiently based on understanding the needs and perceptions of our customers and the community at large.

Goal Performance Scorecard

Ref #	Performance Measure	Status	Trend
3-1	Customer Quality Complaints	▲	▲
3-1	Technical Quality Complaints	▲	▲
3-2	Customer Service Cost per Account	■	■
3-3	Billing Accuracy	■	■
3-4	Call Center Indicators	■	■
3-5	Residential Cost of Water & Wastewater Service	■	■
3-6	Stakeholder Outreach Index	▲	▲
Overall Goal Status		■	■

Performance Key

 Excellent
  Good
  Fair
  Poor

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Linkage of Objectives to Performance Measures

FY20 Objectives	Measure Reference
Continue implementation of the Automated Meter Infrastructure (AMI) project by modernizing aging meter infrastructure with smart meters to increase revenue, support conservation efforts, and provide better customer service by the end of the 4th Quarter of FY20.	3-1 3-4
Improve customer satisfaction by achieving a billing accuracy ratio of less than 8 through the 4th Quarter of FY20.	3-3
Improve customer satisfaction and operational efficiency in achieving the four call-center targets through the 4th Quarter of FY20: 1) Average Wait Time of less than 1:00 minute; 2) Average Contact Time of less than 4:00 minutes; 3) Abandoned Call Ratio of less than 3; 4) First Call Resolution of greater than 95%.	3-4
Provide communications support for high-priority Water Authority programs and initiatives and conduct public outreach regarding Water Authority services, policies and projects through the end of the 4th Quarter of FY20.	3-6
Complete Customer Conversation meetings to engage customers and obtain input from customers on the Water Authority's activities through the end of the 4th Quarter of FY20.	3-6
Conduct a customer opinion survey in order to assess the Water Authority's performance from the customer's viewpoint from previous surveys by the end of the 4th Quarter of FY20.	3-6

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Performance Measure Division Responsibility

Ref #	Performance Measure	Operations Field	Operations Compliance	Customer Services	Information Technology	Finance
3-1	Customer Service & Technical Quality Complaints		✓	✓		
3-2	Customer Service Cost per Account			✓		✓
3-3	Billing Accuracy			✓	✓	
3-4	Call Center Indicators			✓		
3-5	Residential Cost of Water & Wastewater Service					✓
3-6	Stakeholder Outreach Index			✓		

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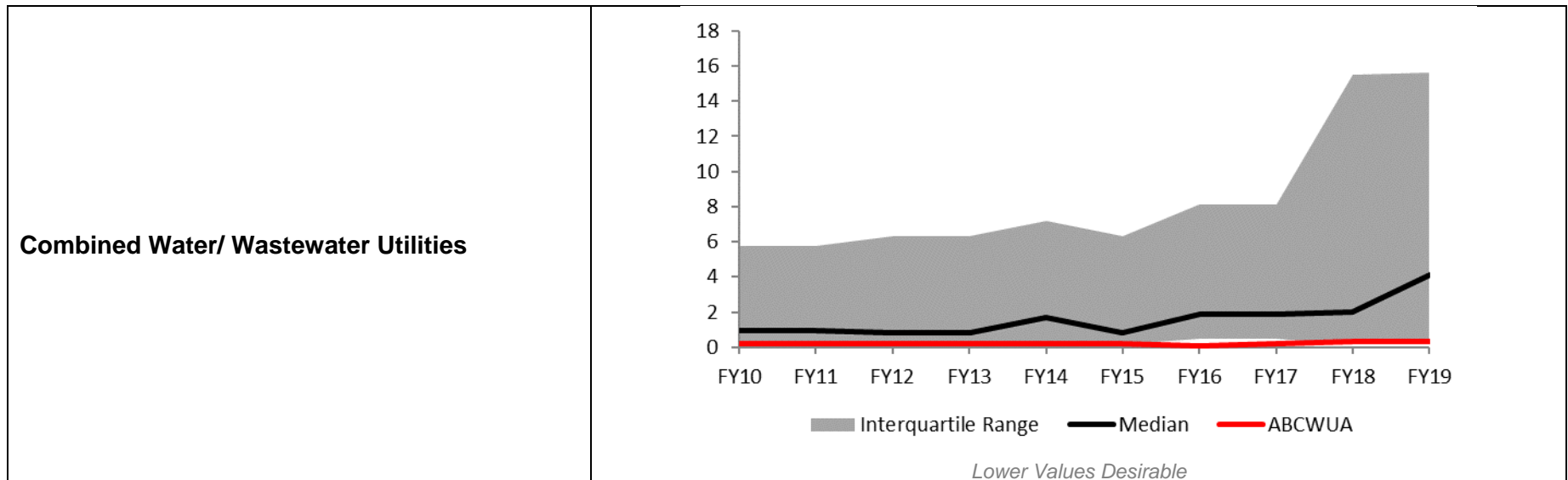
**FY20 Performance Plan
Goal 3: Customer Services**

3-1 Customer Service Complaints and Technical Quality Complaints

Performance Results (Service Associated Complaints)

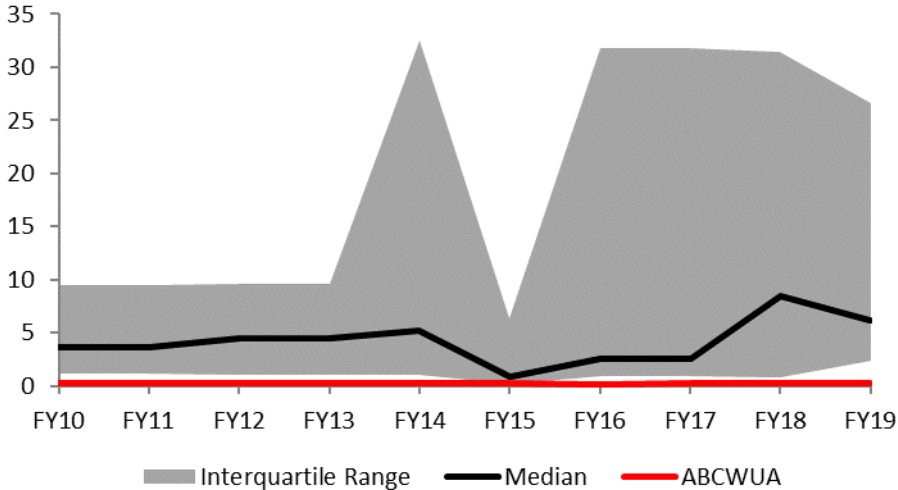
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Measure the complaint rates experienced by the Water Authority, with individual quantification of those related to customer service and those related to core utility services	Number of customer service complaints per 1,000 customer accounts	0.2	0.1	0.2	0.3	0.3	0.3	Improve customer satisfaction with service and product

Industry Benchmark (Service Associated Complaints)



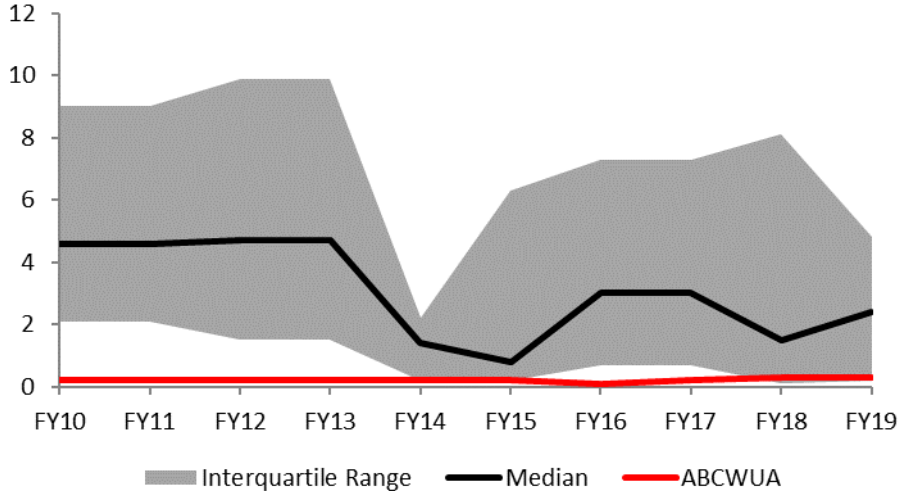
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



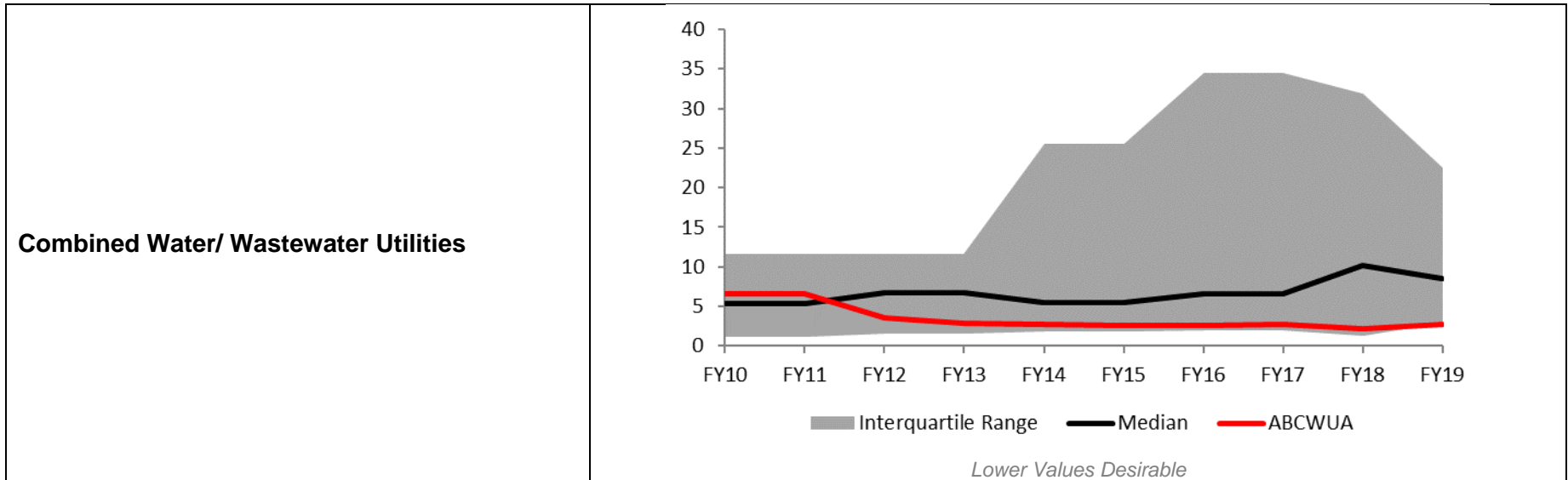
Lower Values Desirable

**FY20 Performance Plan
Goal 3: Customer Services**

Performance Results (Technical Quality Complaints)

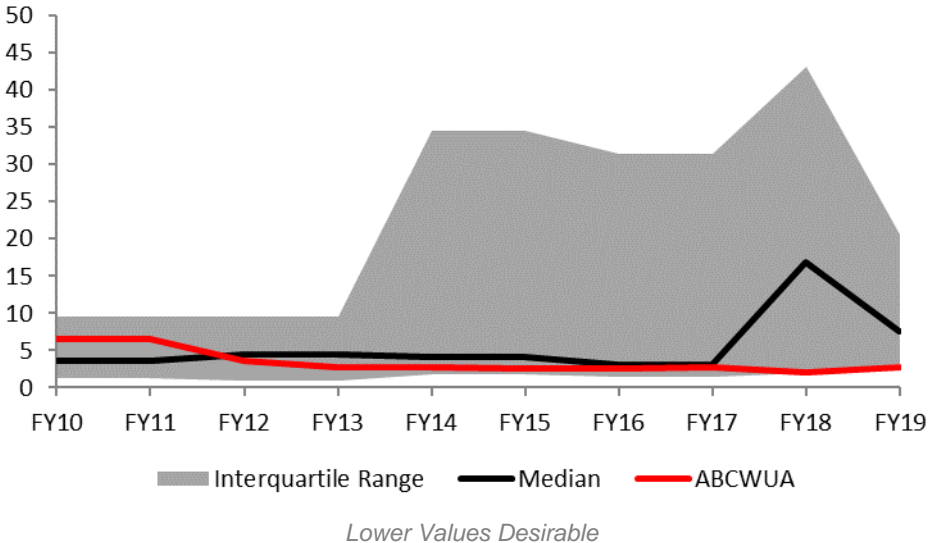
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Measure the complaint rates experienced by the Water Authority, with individual quantification of those related to customer service and those related to core utility services	Number of technical quality complaints per 1,000 customer accounts	2.5	2.6	2.7	2.1	2.7	2.8	Improve customer satisfaction with service and product

Industry Benchmarks (Technical Quality Complaints)

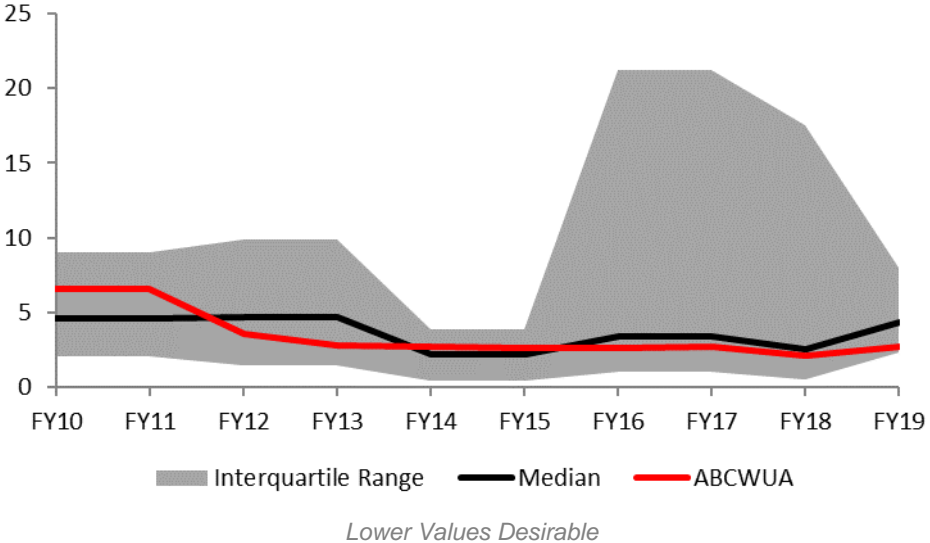


**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Utilities located in Region 4



FY20 Performance Plan
Goal 3: Customer Services

Results Narrative

These pair of measures captures all complaints received by the utility, which are reported either as “service associated” or as “technical quality” complaints. The number of complaints is a good measure of customer service. The two categories allow a utility to track those that are people related and those that are product related.

Measurement Status

The Water Authority’s performance in this measure has been above the median range for the past three fiscal years for customer service complaints and within the median range for technical quality complaints. The Water Authority upgraded its call center phone systems to effectively track customer service performance; the new phone system also allows customers to pay their bills by phone and provide 24/7 service to billing, emergencies, and reporting water waste. Moreover, the Water Authority has developed and executed a customer-focused marketing and communications strategy with an emphasis on conservation, pollution prevention, and web self-service.

2018 Customer Opinion Survey

- 71% of customers are either very or somewhat satisfied with the quality of the drinking water
- 88% of customers are either very or somewhat important to returning high quality water back to the river

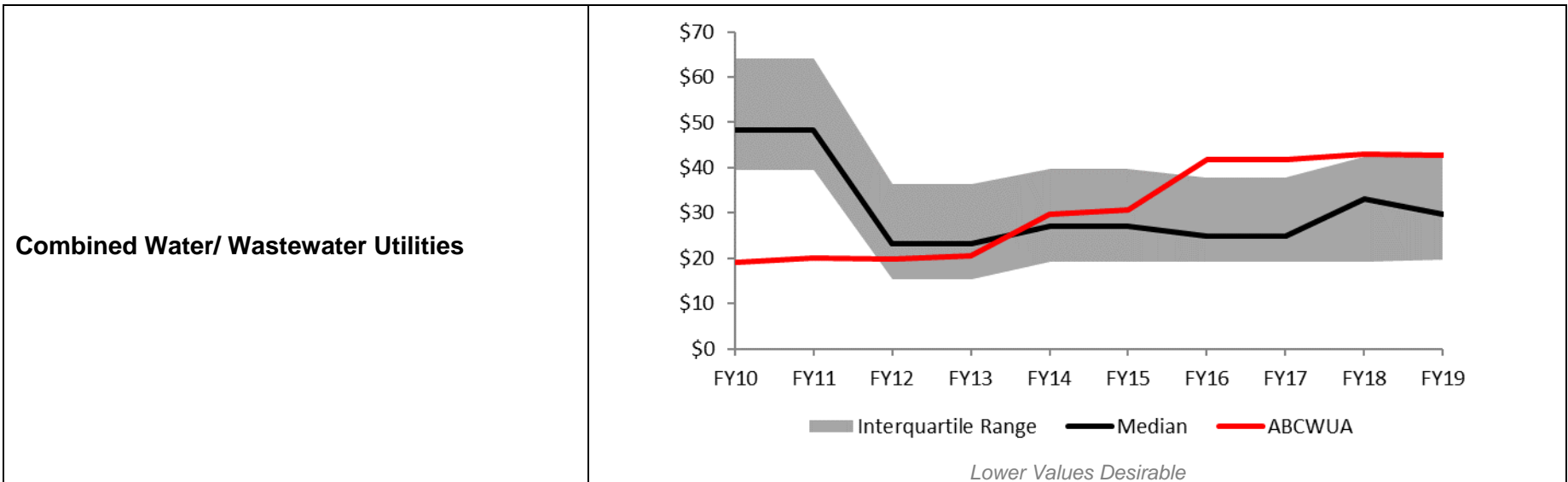
**FY20 Performance Plan
Goal 3: Customer Services**

3-2 Customer Service Cost per Account

Performance Results

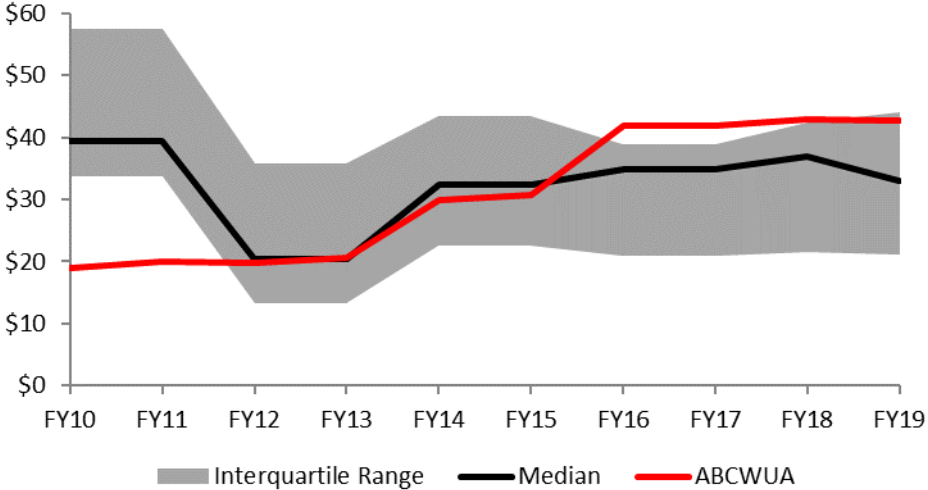
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Measure the amount of resources the Water Authority applies to its customer service program	Total customer service cost and the number of active accounts	\$42.22	\$41.82	\$41.85	\$43.00	\$42.66	\$34.79	Improve efficiency by reducing customer service cost per account while meeting customer expectations

Industry Benchmarks



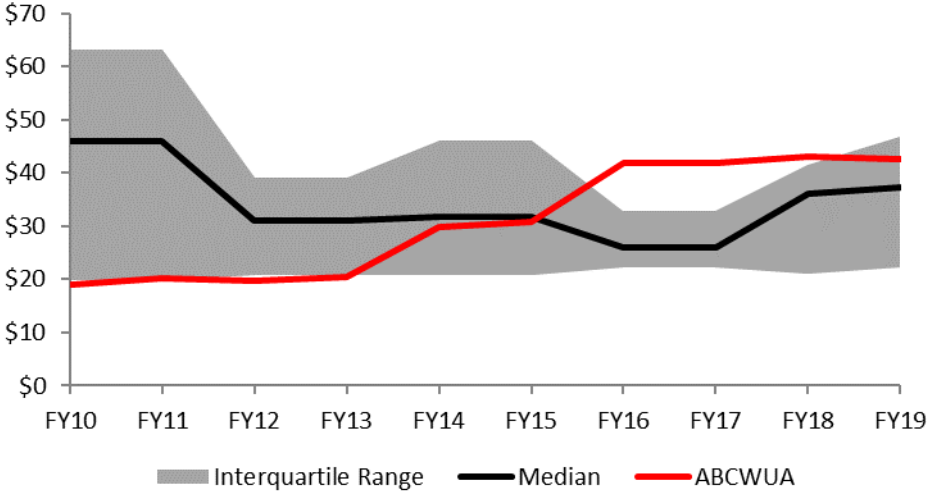
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 3: Customer Services

Results Narrative

The measure is expressed as the cost of managing a single customer account for one year. When viewed alone, it quantifies resource efficiency. Viewing in conjunction with other measures such as customer complaints gives the utility more information about operational performance.

Measurement Status

The Water Authority's performance in this measure has been within the median range for the past three fiscal years. Customer service costs have increased from the result of implementing its Automated Meter Infrastructure program which is about 50% complete. Costs will decrease over time as more meters are replaced with smart meters which will increase revenue, support conservation efforts, and provide better customer service.

**FY20 Performance Plan
Goal 3: Customer Services**

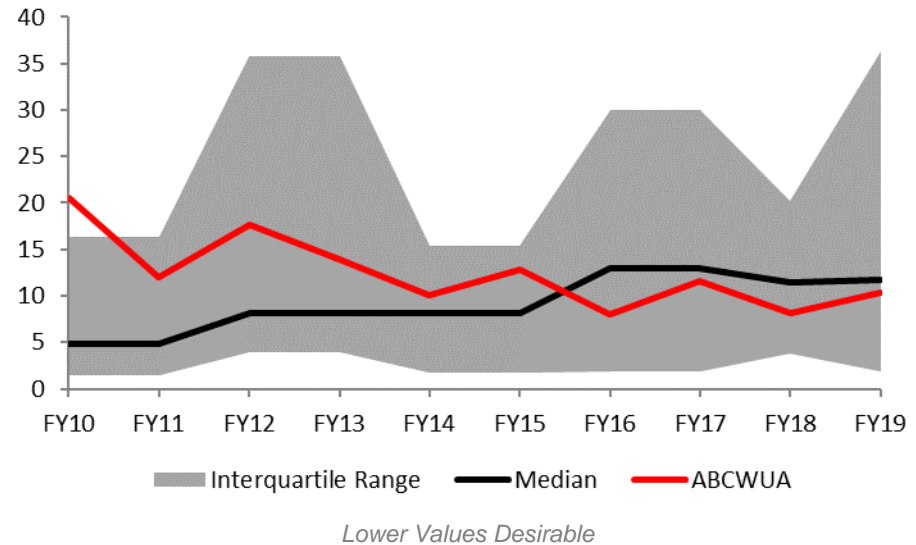
3-3 Billing Accuracy

Performance Results

Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
Effectiveness	Measure the effectiveness of the Water Authority's billing practices	Number of error-driven billing adjustments per 10,000 bills generated during the year	9.2	FY16	FY17	FY18	FY19	FY20	Improve billing accuracy to minimize customer complaints
				8.0	11.6	8.2	10.3	9.1	

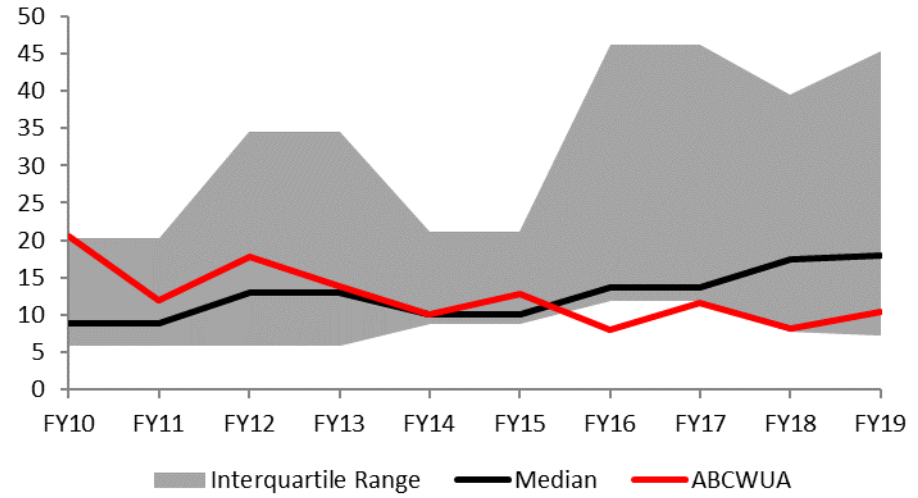
Industry Benchmarks

Combined Water/ Wastewater Utilities



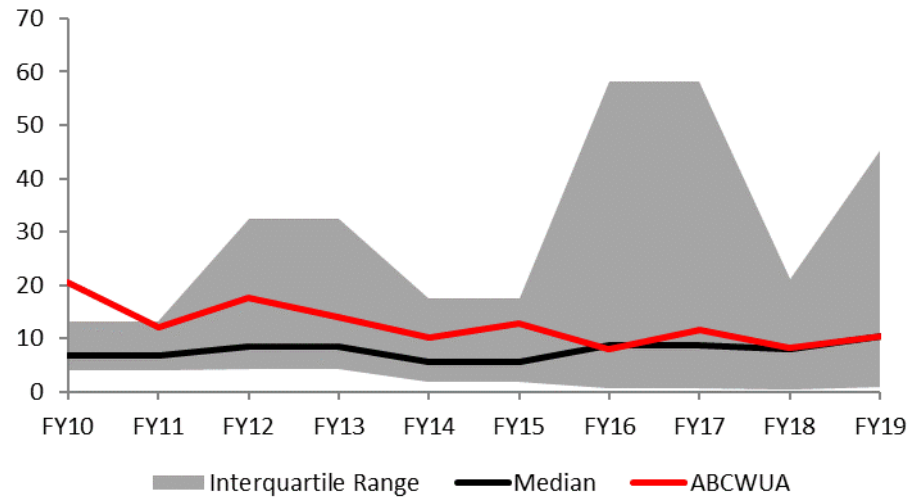
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 3: Customer Services

Results Narrative

Customers rarely think about their utility, unless they have a problem with service or billing. This measure helps a utility measure how effective its billing practices are relative to others.

Measurement Status

The Water Authority's performance in this measure has been within the median range for the past three fiscal years. As the utility implements its Automated Metering Infrastructure (AMI) system, performance in this measure will improve. The purpose of the AMI Project is to replace the Water Authority's aging meters with modern smart meters in order to save money, deliver more accurate bills and encourage users to conserve water.

AMI customers will be able to view in real-time exactly how much water they consume and be able to use this information to actively manage and reduce their daily usage. They also can change their basic account data, create personal goals and budgets with reminders and updates, and download targeted educational material to learn about and enroll in resource-conservation programs. The technology will also allow the Water Authority to remotely review consumption levels across the service area, assisting with conservation and billing and identifying and repairing leaks before they become significant problems.

2018 Customer Opinion Survey

- 87% of customers are either very or somewhat satisfied with the accuracy of their bill
- 87% of customers are either very or somewhat satisfied with the bill format and water usage graph
- 89% of customers are either very or somewhat satisfied with the billing payment options

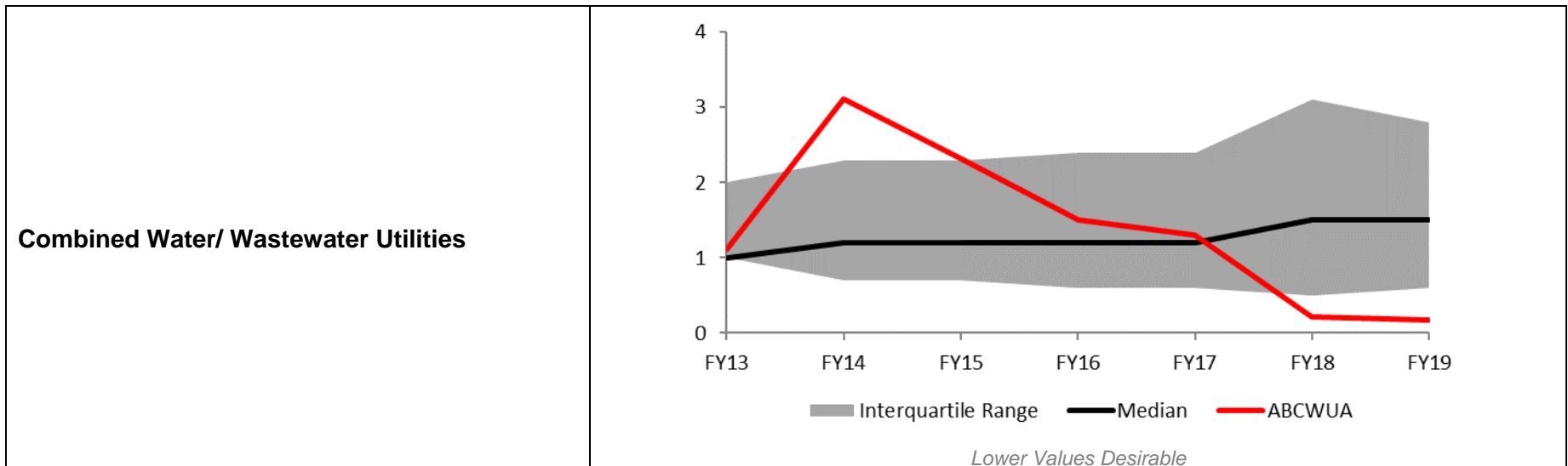
**FY20 Performance Plan
Goal 3: Customer Services**

3-4 Call Center Indicators

Performance Results Average Wait Time (minutes)

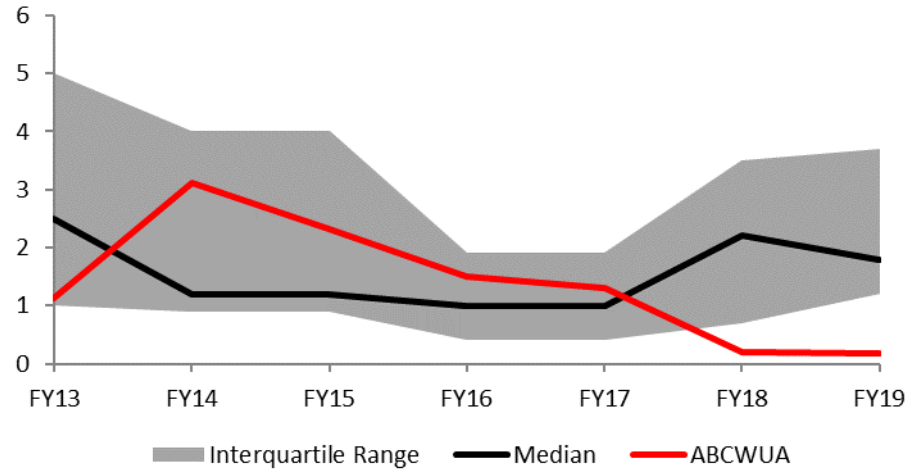
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the call wait time experienced by Water Authority customers	Average time a caller must wait on hold before they can speak to an agent or customer service representative, not including time spent navigating through computerized menu options	1:14	1:51	1:30	0:21	0:17	0:15	Reduce call wait time and avoid customers hanging up

Industry Benchmarks



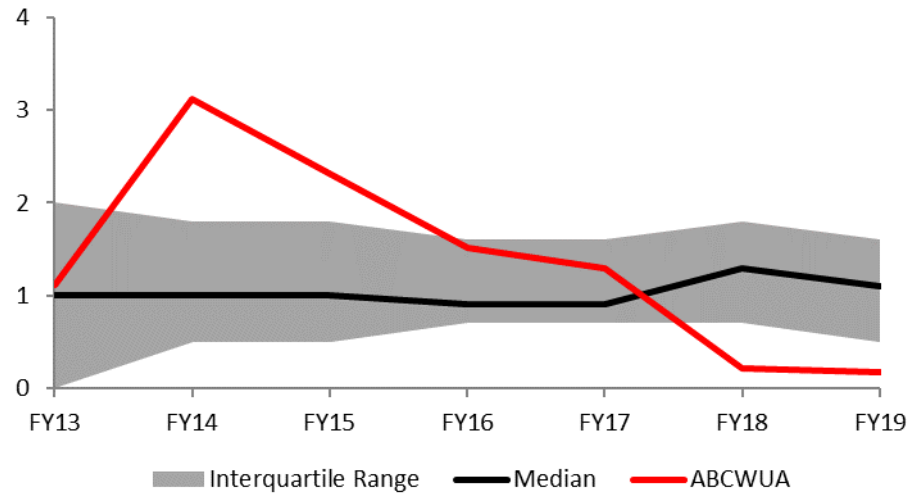
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



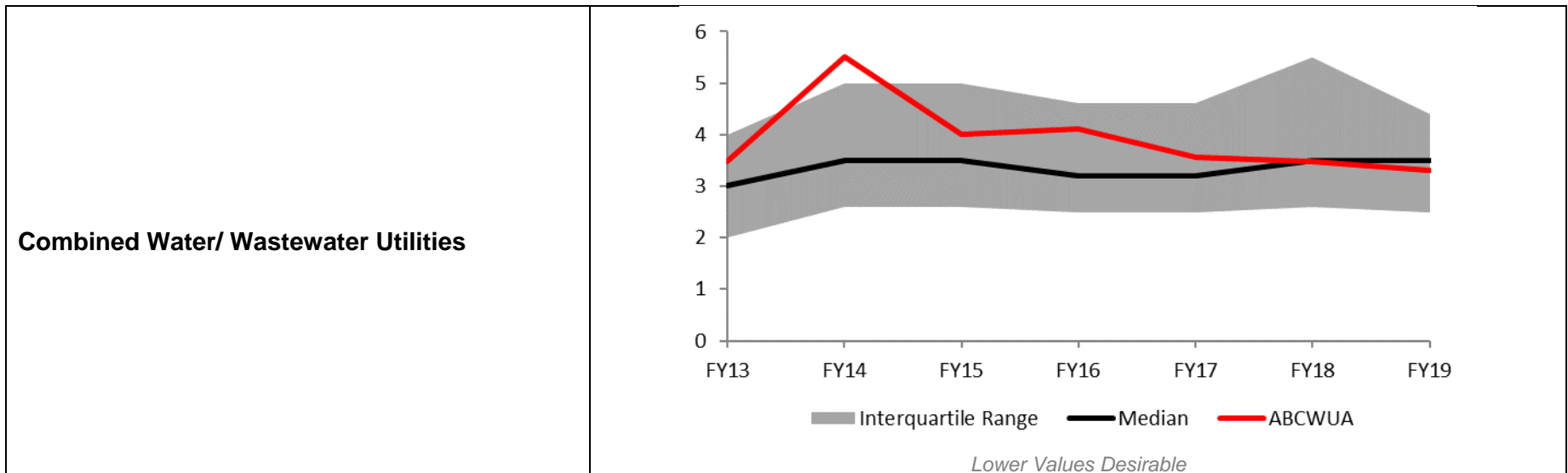
Lower Values Desirable

**FY20 Performance Plan
Goal 3: Customer Services**

Performance Results Average Total Call Time (minutes)

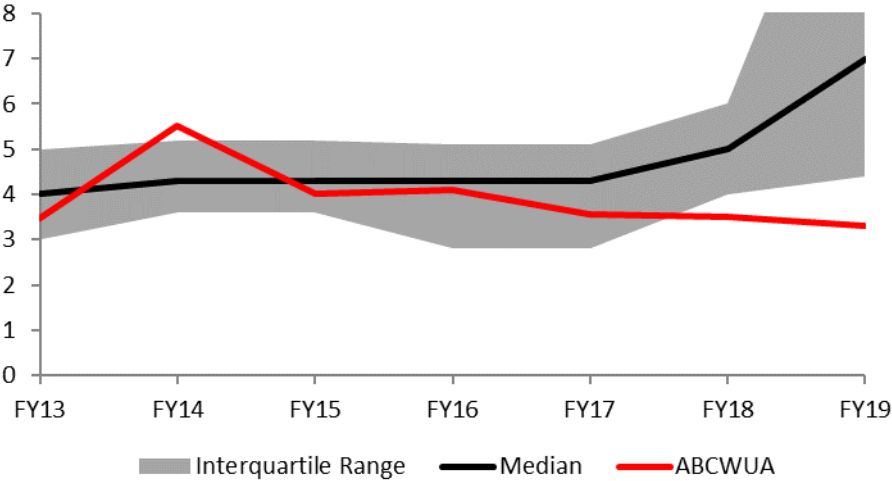
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current /Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the time spent to resolve the purpose of the phone call by Water Authority customers	Average time spent by a customer service representative on the phone with a customer	3:52	4:11	3:57	3:48	3:30	3:25	Reduce the average total call time to enable CSRs to handle more customer calls and reduce wait time

Industry Benchmarks



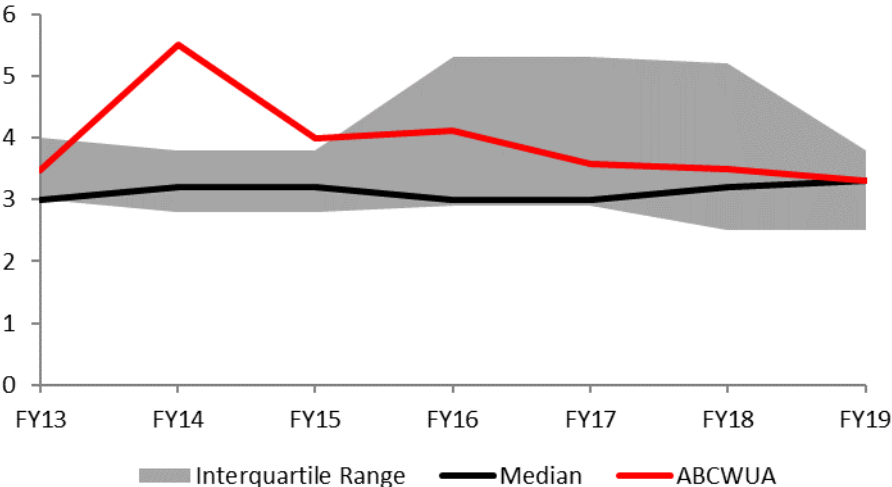
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



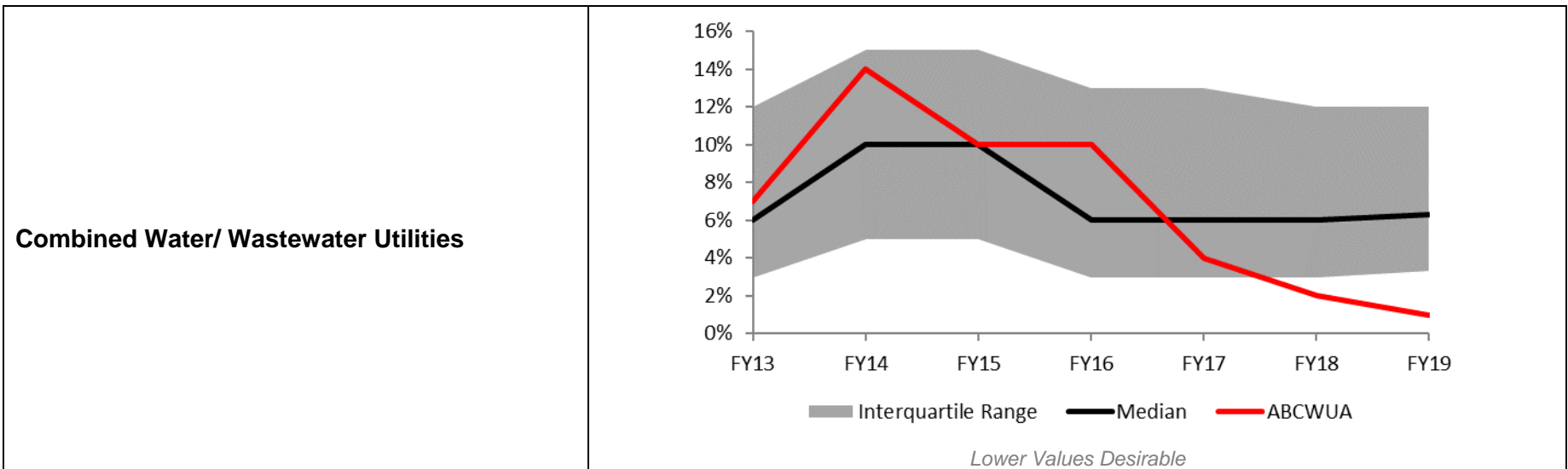
Lower Values Desirable

**FY20 Performance Plan
Goal 3: Customer Services**

Performance Results Abandoned Call Ratio

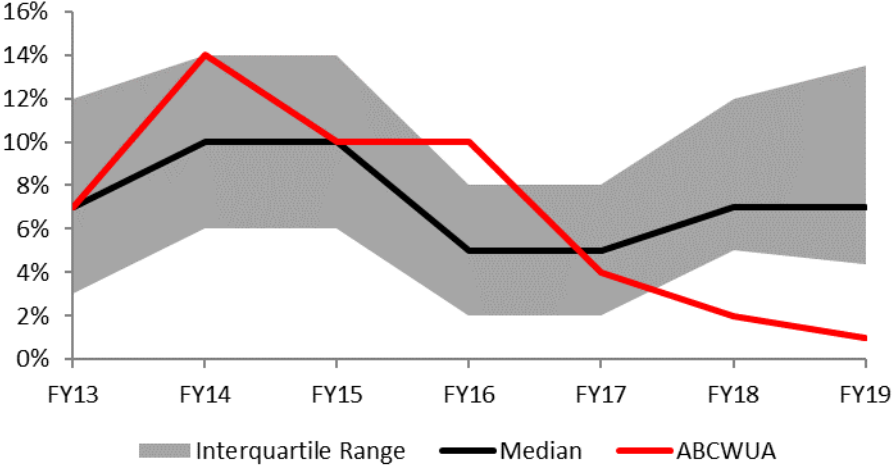
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the number calls abandoned from Water Authority customers	Total number of calls abandoned divided by the total number of calls received	5%	10%	4%	2%	1%	1%	Allow CSRs to effectively assist customers with their needs before they become impatient and hang up

Industry Benchmarks



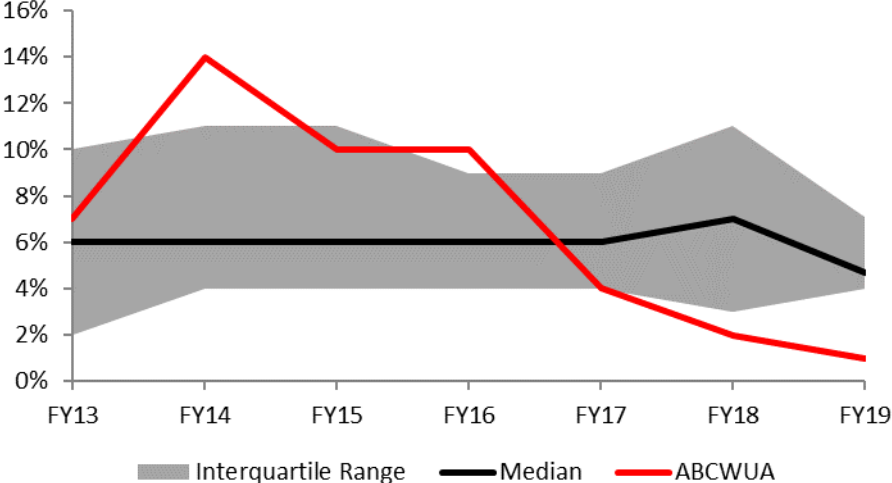
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 3: Customer Services

Results Narrative

The efficiency (cost) and effectiveness (outcomes) of call centers can be evaluated in many different ways. Utilities can track and compare their call center's average wait time, average talk time, and abandoned call ratio to better understand if expenses can be reduced while customer satisfaction is improved. Abandoned calls are those terminated by the calling party before being answered by an agent or customer service representative (CSR). The total number of calls received during the reporting period refers to the number of calls attempting to reach the contact center that are not blocked, incomplete, or denied.

Measurement Status

The Call Center Indicators metric was recently included by AWWA in their benchmarking survey. The Water Authority also recently upgraded its call center phone systems to effectively track customer service performance allowing the utility to benchmarking with industry peers. The new phone system also allows customers to pay their bills by phone and provide 24/7 service to billing, emergencies, and reporting water waste.

The Water Authority has begun tracking and setting targets for four customer service metrics. To improve customer satisfaction and operational efficiency, the following targets were established for FY20: 1) Average Wait Time of less than 1:00 minute; 2) Average Contact Time of less than 4:00 minutes; 3) Abandoned Call Ratio of less than 3; 4) First Call Resolution of greater than 95%.

2018 Customer Opinion Survey

- 66% of customers gave either excellent or good rating on the overall quality of service provided by a customer service representative
- 88% of customers are either very or somewhat satisfied with the courtesy of the customer service representative
- 74% of customers are either very or somewhat satisfied with the knowledge and ability to answer your questions or resolve your issues
- 74% of customers are either very or somewhat satisfied with the length of wait to speak with a customer service representative

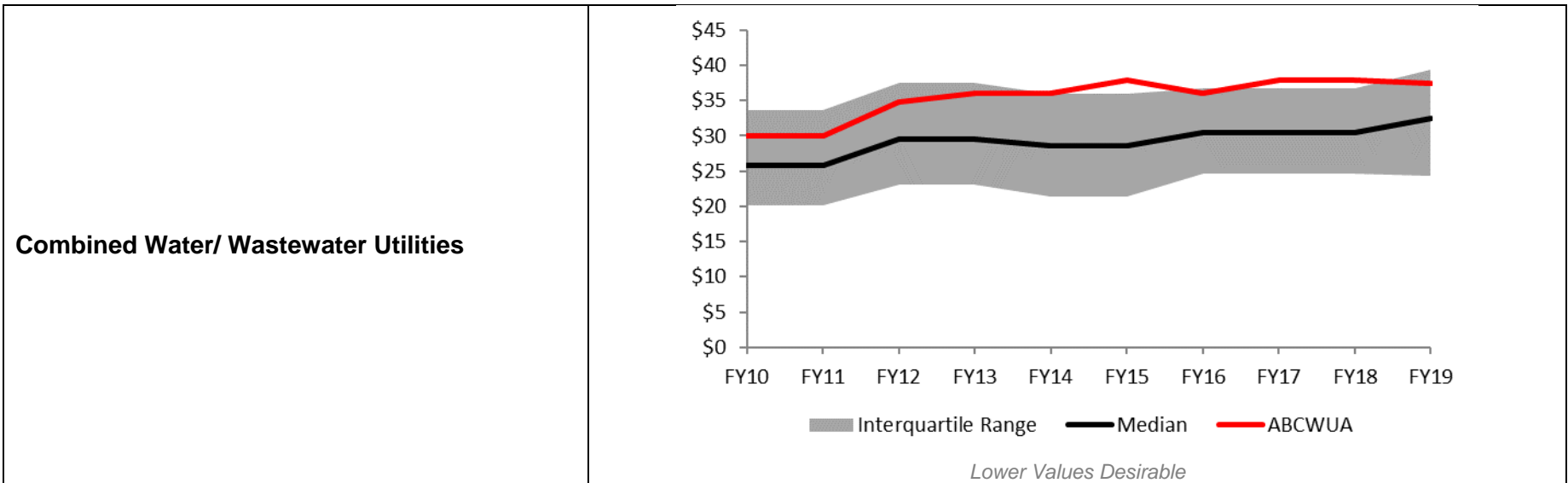
**FY20 Performance Plan
Goal 3: Customer Services**

3-5 Residential Cost of Water and/or Sewer Service

Performance Results (Average Residential Water Service)

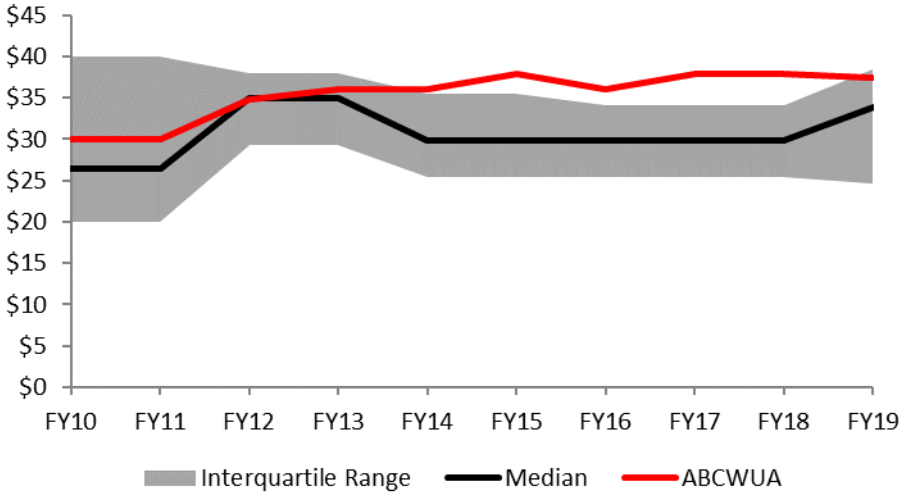
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Compare the residential cost of water and sewer service based on both a defined quantity of water use and the average residential bill amounts for those services	Bill amount for monthly residential water/sewer service and average residential water/sewer bill for one month of service	\$37.25	\$36.05	\$37.85	\$37.85	\$37.43	\$37.43	Provide affordable water and legally justifiable rates to our customers

Industry Benchmarks



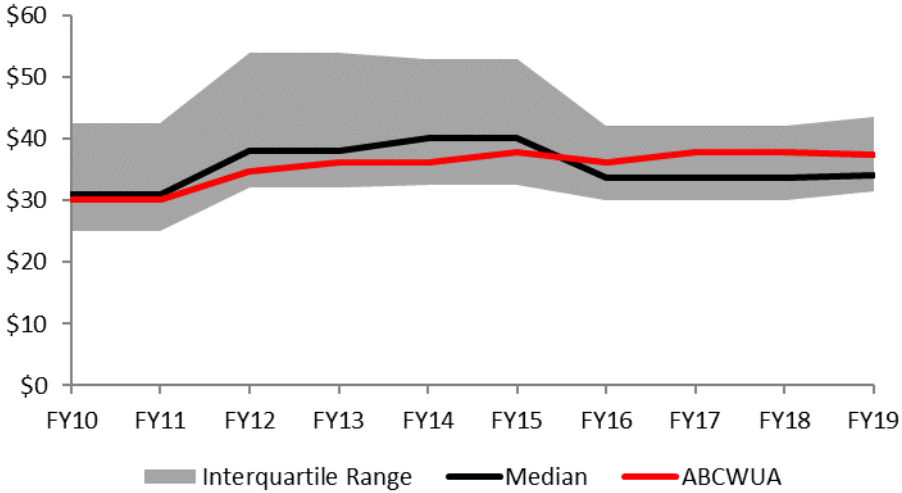
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



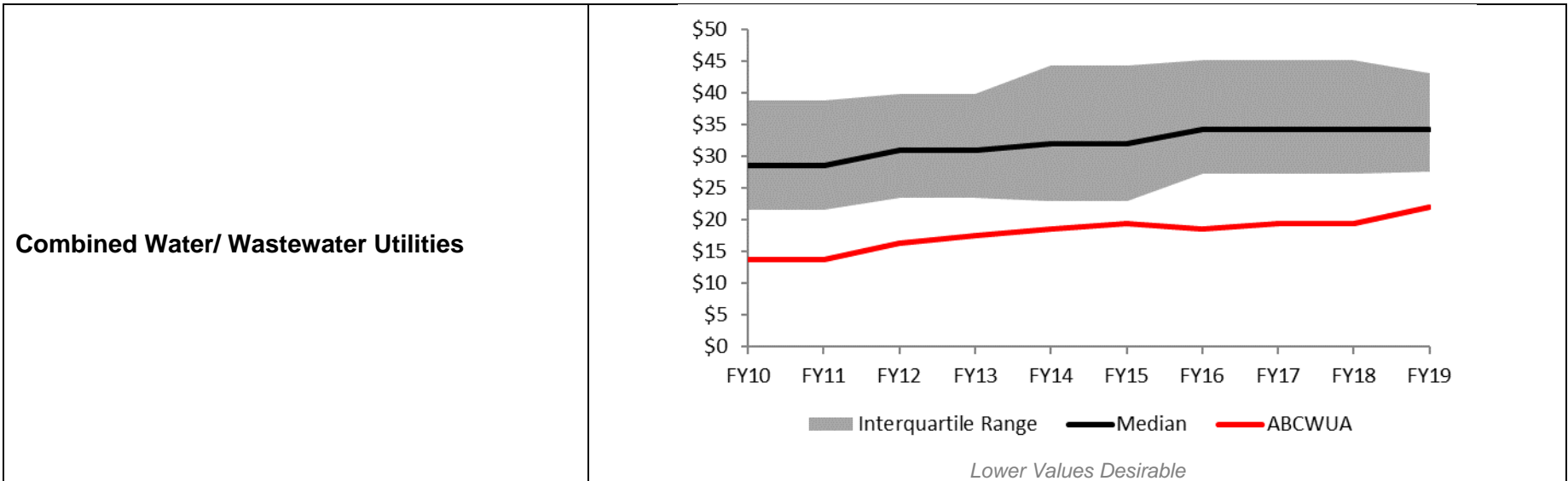
Lower Values Desirable

**FY20 Performance Plan
Goal 3: Customer Services**

Performance Results (Average Residential Sewer Service)

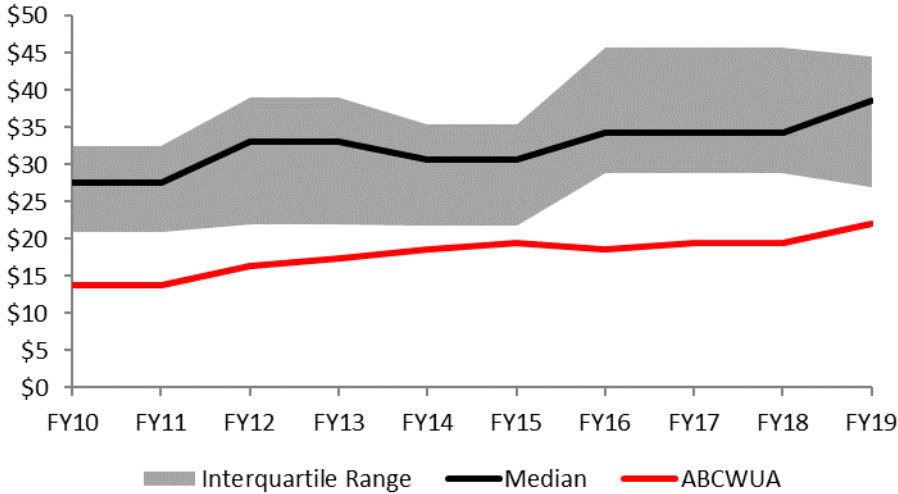
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Compare the residential cost of water and sewer service based on both a defined quantity of water use and the average residential bill amounts for those services	Bill amount for monthly residential water/sewer service and average residential water/sewer bill for one month of service	\$19.18	\$18.56	\$19.49	\$19.49	\$21.97	\$21.97	Provide affordable water and legally justifiable rates to our customers

Industry Benchmarks



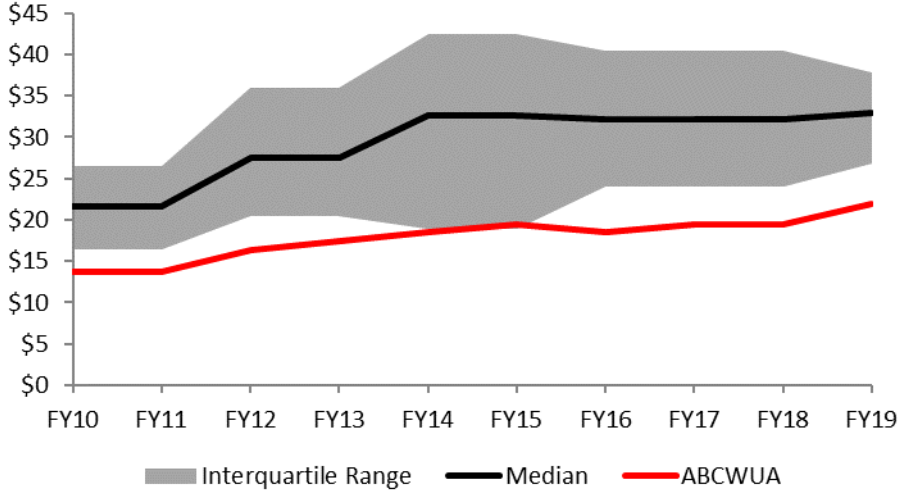
**FY20 Performance Plan
Goal 3: Customer Services**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 3: Customer Services

Results Narrative

This measure shows average residential water bill amount for one month of service for water and wastewater. The data provided is based on a bill amount for a typical residential customer served water through a 3/4 x 5/8-inch meter. Because each utility is unique, this measure is quite complex. In some places, rates may be artificially low or high in order to achieve non-utility objectives. In others, utilities may have rates controlled by public utility commissions.

Measurement Status

The Water Authority's performance in this measure has been below the median range for the past three fiscal years for average residential water service, and above the median range for the past three fiscal years for average residential sewer service. The Water Authority completed a comprehensive water and wastewater rate study in FY05 which had not been conducted since the early 1990s. The Water Authority adopted a policy objective for FY08 to update that rate study in order to include wholesale water rates. Another reason to update the rate study is to include a cost of services model for master planned communities so that these new large developments pay 100% of the cost for building master planned facilities.

In FY11, the water and sewer rate structures were evaluated to ensure equity within the structures. The 2010 rate structure evaluation included incorporating former New Mexico Utilities into the Water Authority rate structure. The FY12 rate ordinance also added a 200% tier to the extra use surcharge to promote conservation and increased the Low Use Water Discount from 20% to 30%. A 5% rate revenue increase was implemented in FY12, FY14, FY15, FY16, and FY18; another 5% rate increase is planned for FY21. The rate increases are a component of implementing the Finance Plan by incrementing increasing more capital funds to take care of increasing infrastructure needs. The FY15 rate adjustment was on exclusively on the fixed rate in order to meet infrastructure renewal needs.

The Water Authority completed a rate evaluation in FY19 and proposed no rate adjustment for FY20. The rate structure continues to balance conservation with rate stability and revenue sufficiency by moving more revenue recovery from the base charge than in previous years. Even with the adopted and planned rate increases, the Water Authority anticipates that it will continue to be within the median range over the next five years compared to Western U.S. utilities.

2018 Customer Opinion Survey

- 77% of customers either strongly or somewhat agree that water and sewer services are a good value for the amount of money paid
- 75% of customers either strongly or somewhat agree that because water is a scarce resource, water rates should be designed to reflect the value of water in our daily lives
- 58% of customers either strongly or somewhat agree that water rates should be increased to cover the cost of providing a reliable water supply for future generations

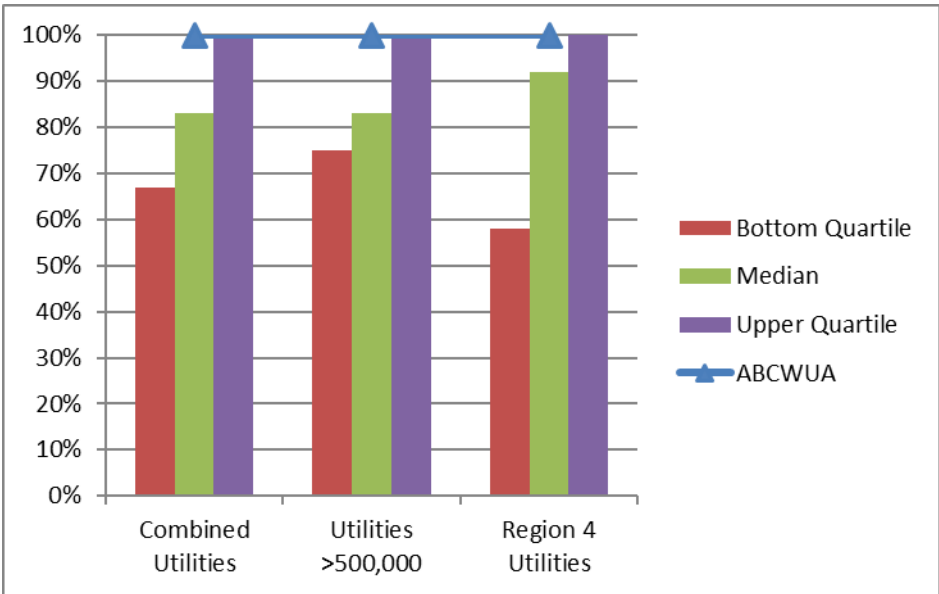
**FY20 Performance Plan
Goal 3: Customer Services**

3-6 Stakeholder Outreach Index

Performance Results

Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current /Est		Projected
Effectiveness	Quantify the utility's stakeholder outreach activities	Self-assessment based on Stakeholder Outreach Checklist		FY16	FY17	FY18	FY19	FY20	Assess the utility's outreach efforts with its stakeholders
			100%	100%	100%	100%	100%	100%	

Industry Benchmarks



Generally, higher values are desirable

FY20 Performance Plan
Goal 3: Customer Services

Results Narrative

This indicator provides a measure of a utility's stakeholder outreach activities. It is calculated based on self-assigned points the various categories in the Stakeholder Outreach Checklist. The value assigned to each statement is based on evidence that existed during the reporting period to support the statement, as reviewed and rated by senior utility management. Total scores can range from 0 to 12 and are presented as a percentage of the maximum possible score of 12.

Measurement Status

The Stakeholder Outreach Index was recently included by AWWA in their benchmarking survey. The Water Authority has been measuring this Index for the last three fiscal years. In FY18, the Water Authority conducted a customer opinion survey in order to assess the Water Authority's performance from the customer's viewpoint from previous surveys. This was the seventh customer opinion survey conducted since the first survey in 2006 which allowed the Water Authority view trends of customer's opinions. The results of the 2018 survey have been incorporated into the Performance Plan as many questions or statements are connected to the benchmarks in the Performance Plan. A customer opinion survey will be conducted in FY20.

In last six fiscal years, the Water Authority has conducted quarterly customer meetings called Customer Conversations to engage its customers through topic forums. The Technical Customer Advisory Committee (TCAC) hosted each meeting and TCAC members attended these meetings to observe the process and listen to customers' discussions and comments. The purpose of these forums is to engage customers through interactive activities to allow customers to discuss issues with fellow customers and provide meaningful feedback to the utility. The feedback is very helpful in creating or amending programs, policies, or projects.

In 2016, the Water Authority received the Water Environment Federation's **Public Communication and Outreach Award**. In 2017, the utility receive the National Association of Clean Water Agencies' **Public Information and Education Award**. These awards recognize the scope and achievements of the Water Authority's education program. The primary goal of the education program is to inform and inspire students (and the parents they in turn help educate) to conserve water and protect our limited water resources. The program has contributed to the tremendous progress Albuquerque has made in decreasing its per capita water use. By helping the community save 300 billion gallons of water, the Water Authority's education program – with its puppet shows, classroom activities, field trips, and wastewater plant tours – has played a critical role in supporting the overall mission of the Water Authority.

FY20 Performance Plan
Goal 3: Customer Services

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Goal 4

Business Planning & Management

Guiding Goal Statement

Maintain a well planned, managed, coordinated, and financially stable utility by continuously evaluating and improving the means, methods, and models used to deliver services.

Goal Performance Scorecard

Ref #	Performance Measure	Status	Trend
4-1	Debt Ratio	■	■
4-2	Return on Assets	■	■
4-3	System Renewal / Replacement Rate (Water)	■	■
4-3	System Renewal / Replacement Rate (Wastewater)	■	■
4-4	Triple Bottom Line Index	■	■
Overall Goal Status		■	■

Performance Key

			
Excellent	Good	Fair	Poor

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Linkage of Objectives to Performance Measures

FY20 Objectives	Measure Reference
Expend \$58 million in water and wastewater capital rehabilitation and replacement programs to replace aging, high risk assets that are past their useful life by the end of the 4th Quarter of FY20. \$1 million shall be dedicated and used for identifying steel water pipes in critical or poor condition and rehabilitating or replacing at least 2 miles of small diameter steel water lines by the end of the 4th Quarter of FY20.	4-3
Complete an update to the 2011 Comprehensive/Utility Wide Asset Management Plan to provide a detailed gap analysis of the Water Authority's asset registry by the end of the 4th Quarter of FY20.	4-3
Continue implementation of the Reclamation Rehabilitation Asset Management Plan by planning, designing and constructing reclamation facility improvements through the end of the 4th Quarter of FY20.	4-3
Implement one planned Interceptor Rehabilitation project in FY20, and complete three interceptor design packages by the 4th Quarter of FY20; Implement one planned Small Diameter Sanitary Sewer Rehabilitation project in FY20; Complete design of Grit Collection Station near 12th Street/Interstate 40 by end of the 2nd Quarter of FY20.	4-3
Complete the Maximo upgrade to provide better service, better decision making, and stewardship of its resources by the end of the 4th Quarter of FY20; Upgrade utility Enterprise Applications and expand usage of Splunk data analytics tool to implement functions for cyber-security, water quality and telemetry/vehicle location solutions; and replace all 800 MHz radio system with push to talk technology.	NA
Apply artificial intelligence and machine learning to assess current water quality management strategies using predictive early warning intelligence to see occurrences in real-time; Develop and implement a pilot program that combines live data from water delivery operations with a hydraulic model to provide real-time water quality indicators by the end of the 4th Quarter of FY20.	NA
Complete a needs assessment of the Supervisory Control and Data Acquisition (SCADA) system; Implement recommendations of the assessment for the updated platform to align with the asset management program by the end of the 1st Quarter of FY20.	NA
Begin implementing Phase 1 of the Water Authority's Final Security Plan based on vulnerability assessments that were performed to reduce physical security and cyber security risks with a goal of completing hardware countermeasures selected for adoption by the end of the 4th Quarter of FY20. Update the Water Authority's Emergency Response Plan by the end of the 4th Quarter of FY20. Complete the AWWA risk and resilience certificate program to demonstrate compliance with America's Water Infrastructure Act of 2018.	NA
Update the Comprehensive Information Technology Security Plan and related policies that are aligned with the standards, guidelines, and best practices of the National Institute of Standards and Technology Cybersecurity Framework to protect the utility's critical infrastructure from cyber-attacks by the end of the 2nd Quarter of FY20.	NA

FY20 Objectives	Measure Reference
In order to provide a central location for processes and procedures, finalize a complete draft of the Utility Development Guide by the end of the 2nd Quarter of FY20; Update System Expansion Ordinance to align to the Guide; Review fee structure for Utility Development deliverables.	NA
Maintain the Compliance Division Regulatory Compliance Permit Matrix and the Regulatory Matrix Status Report to respectively maintain schedules for permit submittals and monitor and report emerging Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) regulations, New Mexico Water Quality Control Commission and Environmental Improvement Board regulations, and local laws ordinances, etc. to identify and assess potential impacts on the Water Authority. Provide quarterly reports through the end of the 4th Quarter of FY20.	4-4
Collect, monitor, and report weekly, monthly and quarterly key laboratory performance metrics to include: Water Quality Laboratory results approved and reported for each laboratory section (chemistry, microbiology, metals, and external labs), laboratory productivity (results reported per productive hour), and the percentage of results reported late (turnaround time). Compare to industry benchmarks.	4-4
Continue to develop LabVantage application system throughout FY20 to increase the automation of data entry to reduce data entry errors and reduce the amount paper used at the laboratory. Develop dashboards to help analysts and management manage samples and reagents. Expand the collection of electronic data to field analytics, balances, probes, and spectrophotometry instruments stored in the Database of Compliance.	4-4
Continue to develop the Environmental Monitoring Program to improve the reliability of results from field instrumentation and sample collection techniques. Develop a program plan based on designated International Organization for Standardization (ISO) standard to address accreditation requirements to include standard operating procedures, document control and records management plans, and a process for demonstration of staff capability. Develop a program-wide audit plan to monitor compliance with standard operating procedures in the field and the laboratories. Implement program plan by the end of the 4th Quarter of FY20. Transition to International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) ISO/IEC 17025:2017. Prepare for the American Association for Laboratory Accreditation (A2LA) biennial on-site assessment of the Water Quality Laboratory including completing required internal audits and annual review and revision of Standard Operating Procedures.	4-4
Track external subcontract laboratory costs that are processed by the Water Quality Laboratory. Improve how the Laboratory manages sample submissions to external laboratories and make available the cost of external subcontract laboratory analysis for reporting.	4-4
Monitor for Pharmaceuticals and Personal Care Products (PPCPs) in the source water, drinking water and wastewater. Report the findings of voluntary monitoring by the end of the 2nd Quarter of FY20. Compare the results to historical monitoring performed in 2009-2010.	4-4

Performance Measure Division Responsibility

Ref #	Performance Measure	Finance	Operations Water Resources, Engineering & Planning
4-1	Debt Ratio	✓	
4-2	Return on Assets	✓	
4-3	System Renewal / Replacement Rate (Water)	✓	✓
4-3	System Renewal / Replacement Rate (Wastewater)	✓	✓
4-4	Triple Bottom Line Index		✓

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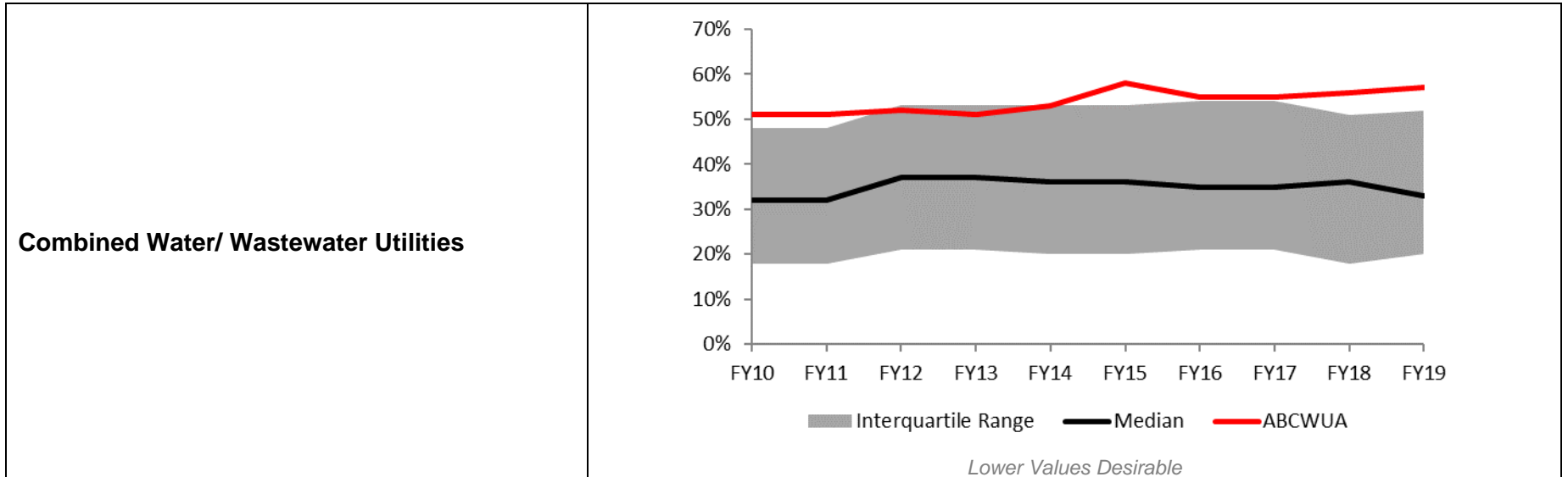
**FY20 Performance Plan
Goal 4: Business Planning and Management**

4-1 Debt Ratio

Performance Results

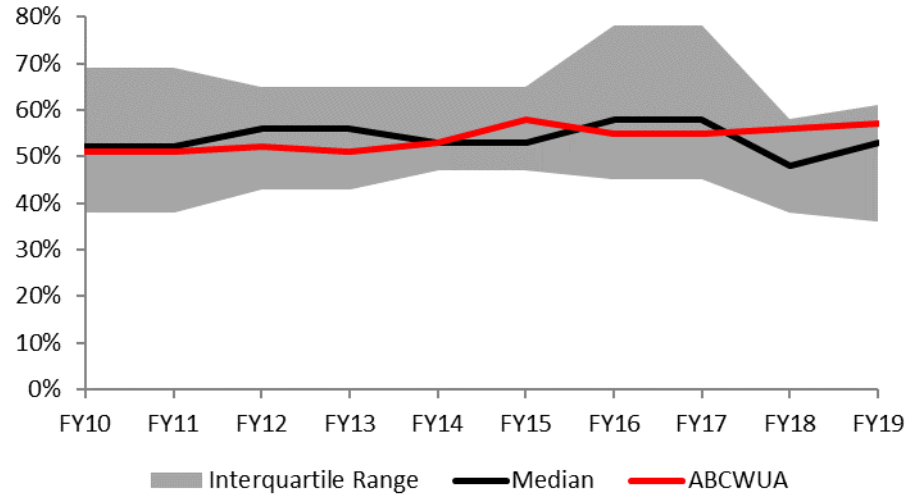
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the Water Authority's level of indebtedness	Total liabilities and total assets	57%	55%	59%	56%	57%	57%	Maintain low debt burden and communicate fiscally responsible to our customers

Industry Benchmarks



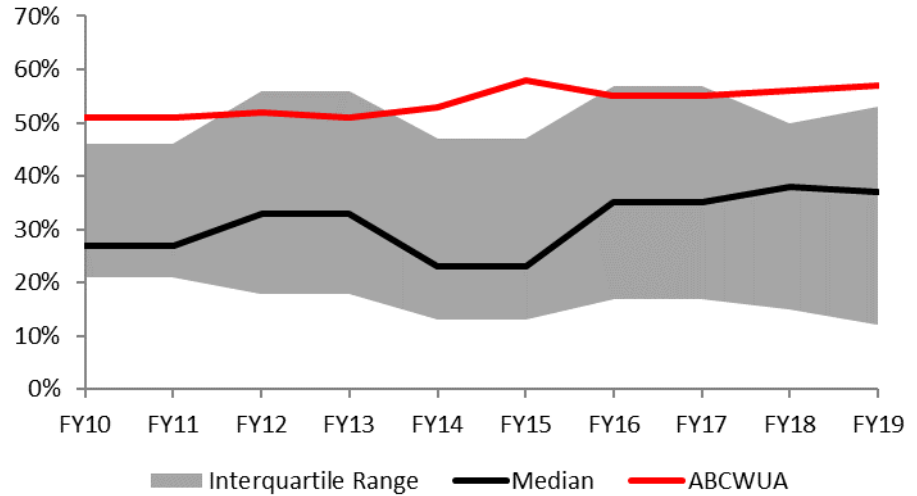
FY20 Performance Plan
Goal 4: Business Planning and Management

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 4: Business Planning and Management

Results Narrative

The higher the calculated debt ratio, the more dependent the utility is on debt financing. Many utilities use this measure as an internal measure of performance. Debt equity ratio is an important measure because a high debt burden brings larger costs for interest and capital repayments.

Measurement Status

The Water Authority's performance in this measure has been below the median range for the past three fiscal years.

The Water Authority has borrowed a significant amount of funds to pay for a new surface drinking water treatment plant as part of the \$500 million San Juan Chama Drinking Water Project. The Water Authority has approximately \$618 million in outstanding debt which is primarily attributed to carrying out the Water Resources Management Strategy projects, including the San Juan Chama Drinking Water Project. In addition, the Water Authority has secured its water supply for the long term compared to most utilities which must invest a significant amount of capital in securing a water supply. The Water Authority has never managed for a high rating from the three rating agencies. The cost of the new facilities, rehabilitation of existing facilities and asset management plan implementation will continue to require significant capital financing. The only way to improve this category would be to not invest in the required capital improvements and/or have significant rate increases to improve cash on hand. The long term outlook for the Water Authority is above peer given the capital investments which will be made and the rapid retirement of debt. The Water Authority has a bond rating of Aa2 by Moody's and AAA by Standard and Poor's. In 2018, S&P upgraded the utility's rating to AAA citing the utility's strong financial management policies and practices, robust planning efforts, and strong levels of pay-as-you-go funding.

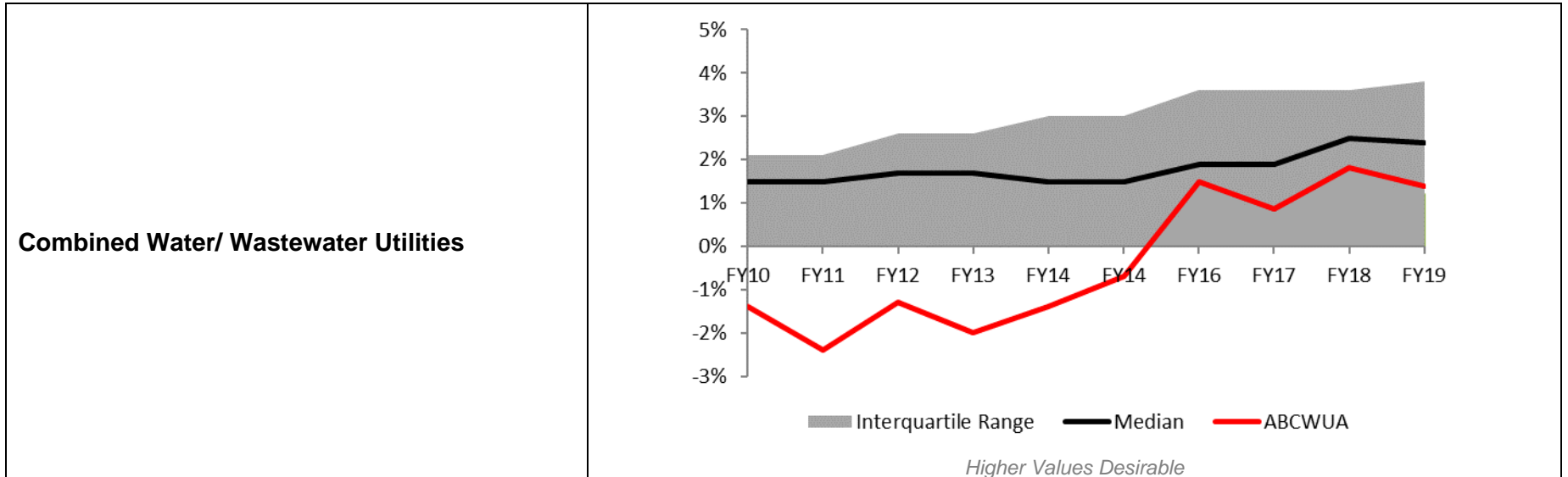
**FY20 Performance Plan
Goal 4: Business Planning and Management**

4-2 Return on Assets

Performance Results

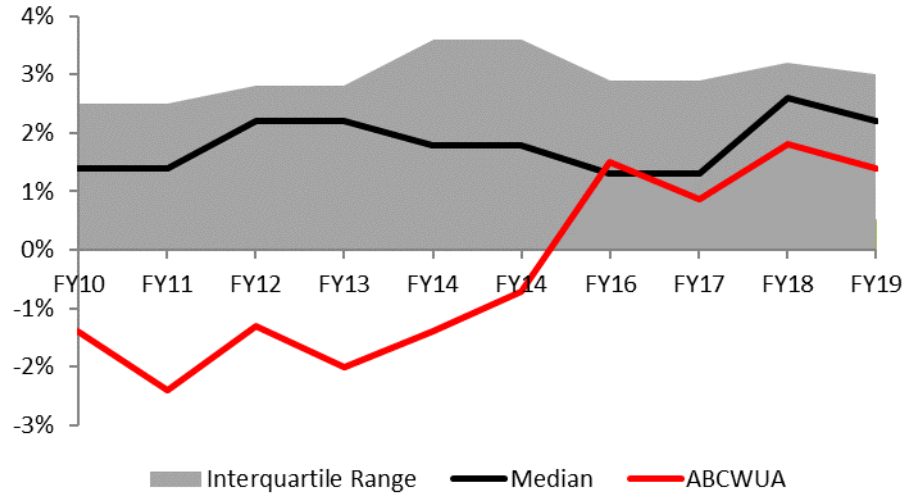
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Measure the financial effectiveness of the Water Authority	Net income and total assets	1.4%	1.5%	0.9%	1.8%	1.4%	1.4%	Improve the financial health of the Water Authority

Industry Benchmarks



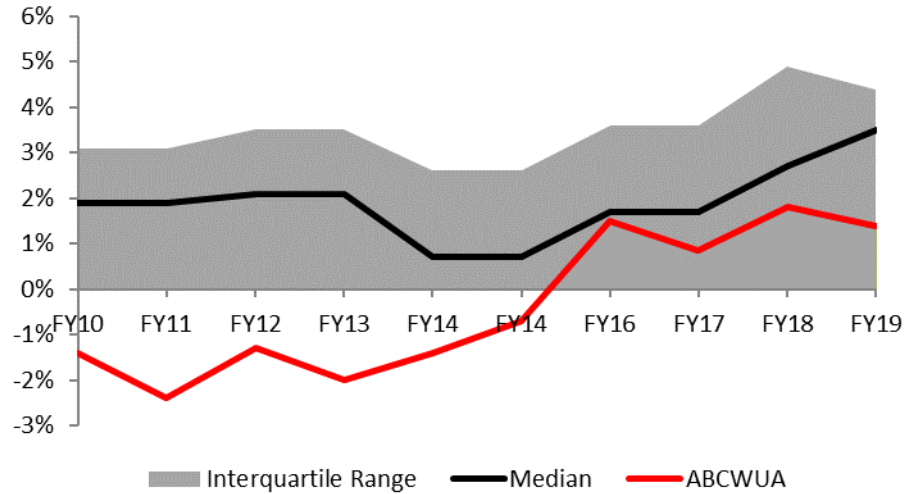
FY20 Performance Plan
Goal 4: Business Planning and Management

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 4: Business Planning and Management

Results Narrative

The return on assets ratio measures how well a utility's management team is doing its job. A comparison of net income and average total assets, the return on assets ratio reveals how much income management has been able to squeeze from each dollar's worth of a utility's assets. All utilities are interested in their financial health and are particularly sensitive to this measure, seeking higher ratios where possible.

Measurement Status

The Water Authority's performance in this measure is within the median range for the last three fiscal years. The San Juan Chama Drinking Water Project has had a major impact on depreciation and interest expenses. The Water Authority has developed and implemented a long term financial plan which anticipates revenue needs and allows for financial stability, ongoing system improvements and rate stability for customers. It has also ensured conservative financial policies, including a 12 year financing on basic capital with 50% cash. In addition, \$40 million must be invested in system rehabilitation and replacement. The utility has also established rate reserve fund to mitigate revenue fluctuations and postpone rate increases (\$2 million per year contributed).

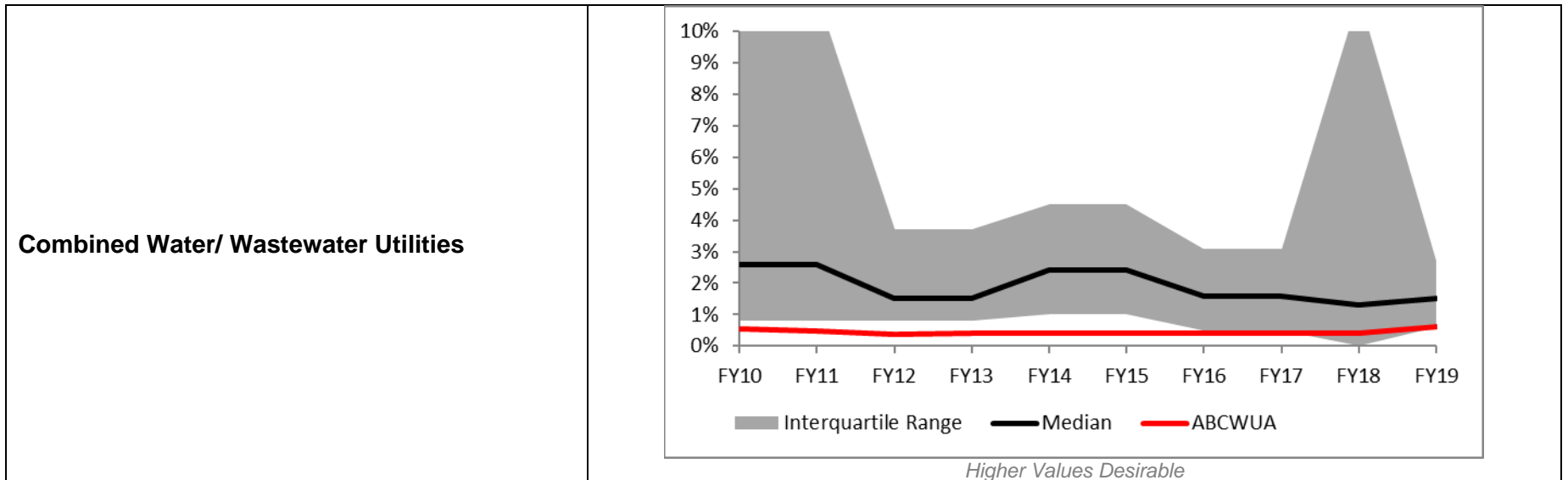
FY20 Performance Plan
Goal 4: Business Planning and Management

4-3 System Renewal / Replacement Rate

Performance Results (Water Pipeline & Distribution)

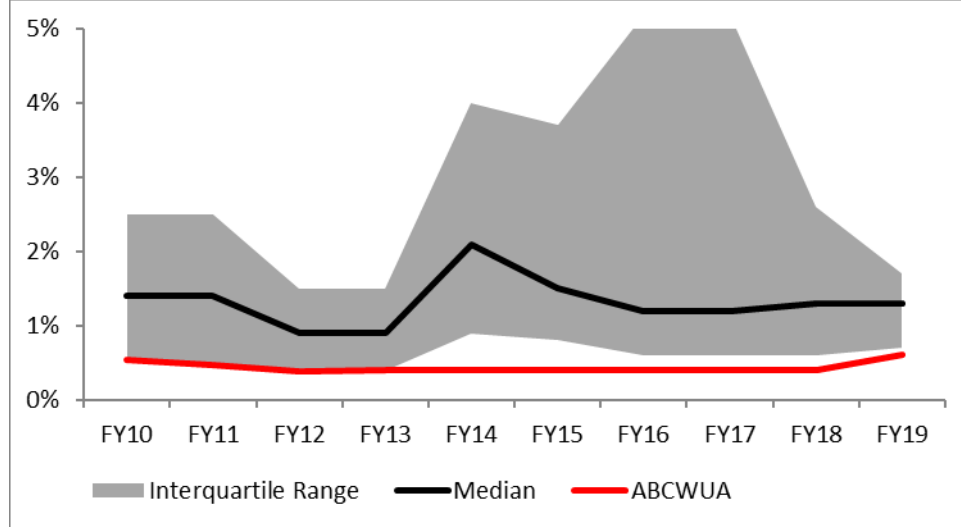
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the rate at which the Water Authority is meeting its individual need for infrastructure renewal or replacement	Total actual expenditures reserved for renewal and replacement and total present worth for renewal and replacement needs for each asset group	0.4%	0.4%	0.4%	0.4%	0.6%	0.6%	Reduce corrective maintenance by investing in infrastructure improvements to the system

Industry Benchmarks



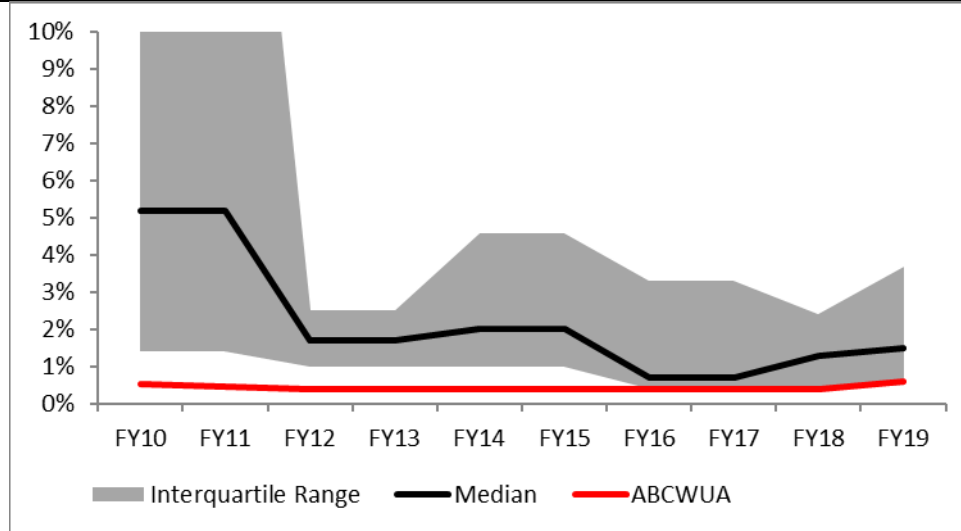
FY20 Performance Plan
Goal 4: Business Planning and Management

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



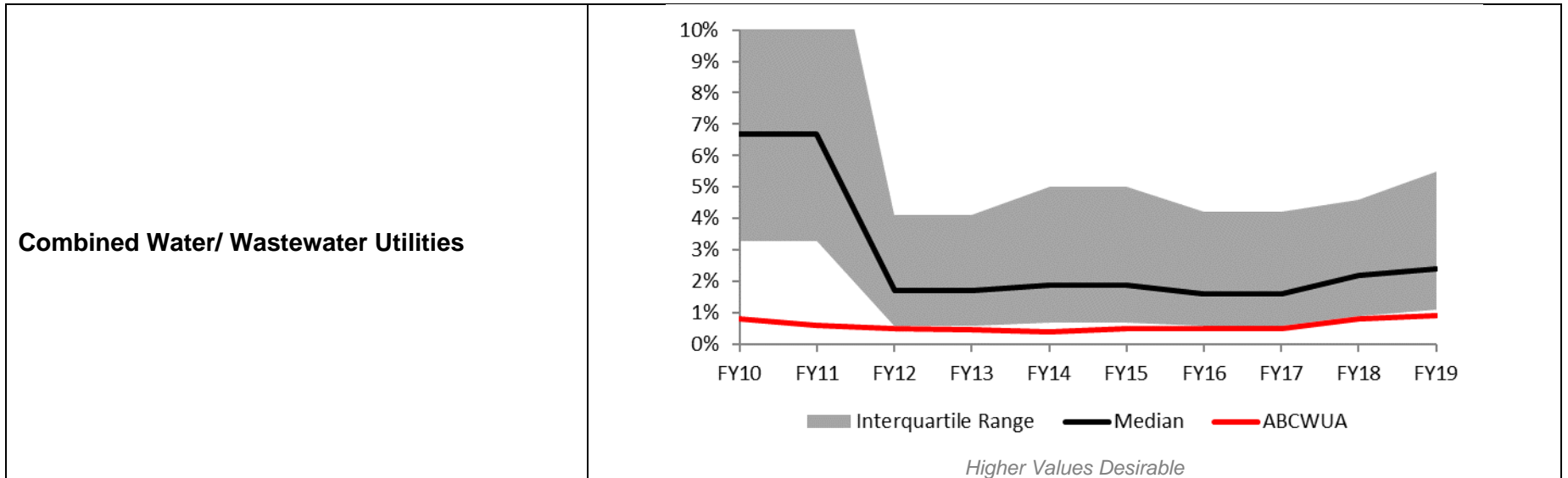
Higher Values Desirable

**FY20 Performance Plan
Goal 4: Business Planning and Management**

Performance Results (Water Facility & Pumping)

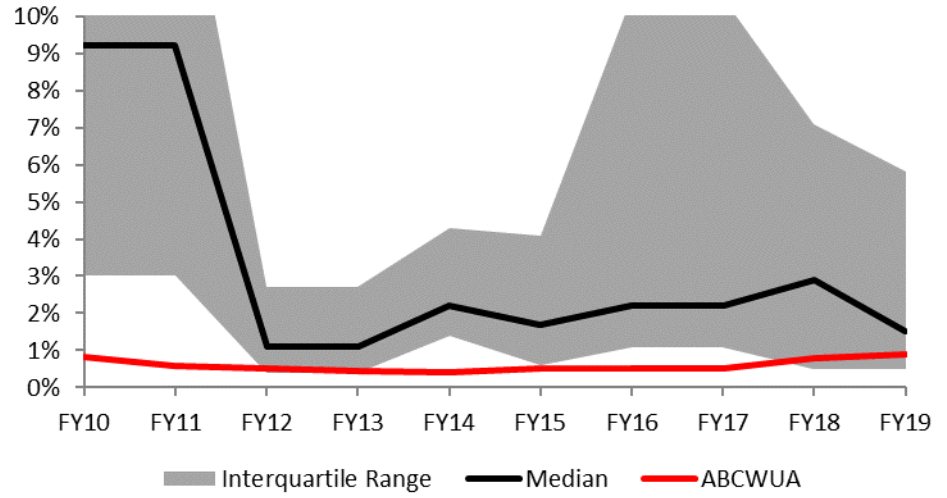
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the rate at which the Water Authority is meeting its individual need for infrastructure renewal or replacement	Total actual expenditures reserved for renewal and replacement and total present worth for renewal and replacement needs for each asset group	0.7%	0.5%	0.8%	0.8%	0.9%	0.9%	Reduce corrective maintenance by investing in infrastructure improvements to the system

Industry Benchmarks



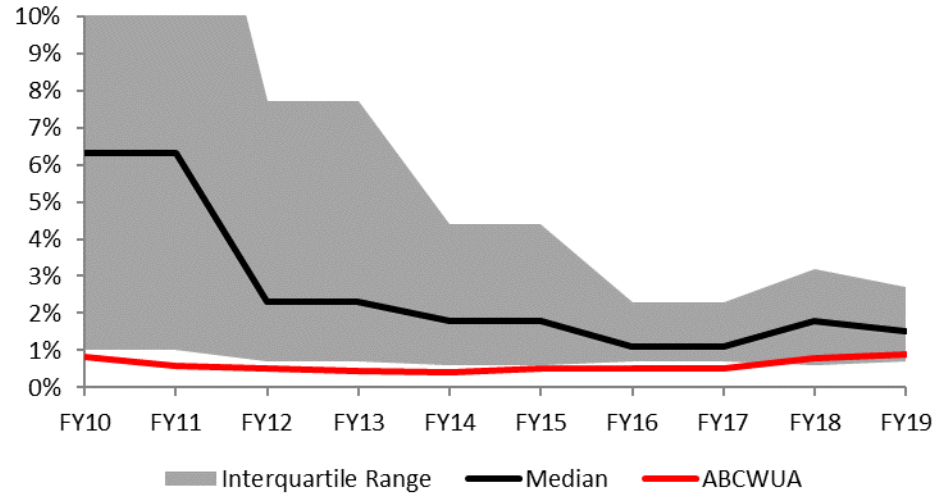
FY20 Performance Plan
Goal 4: Business Planning and Management

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



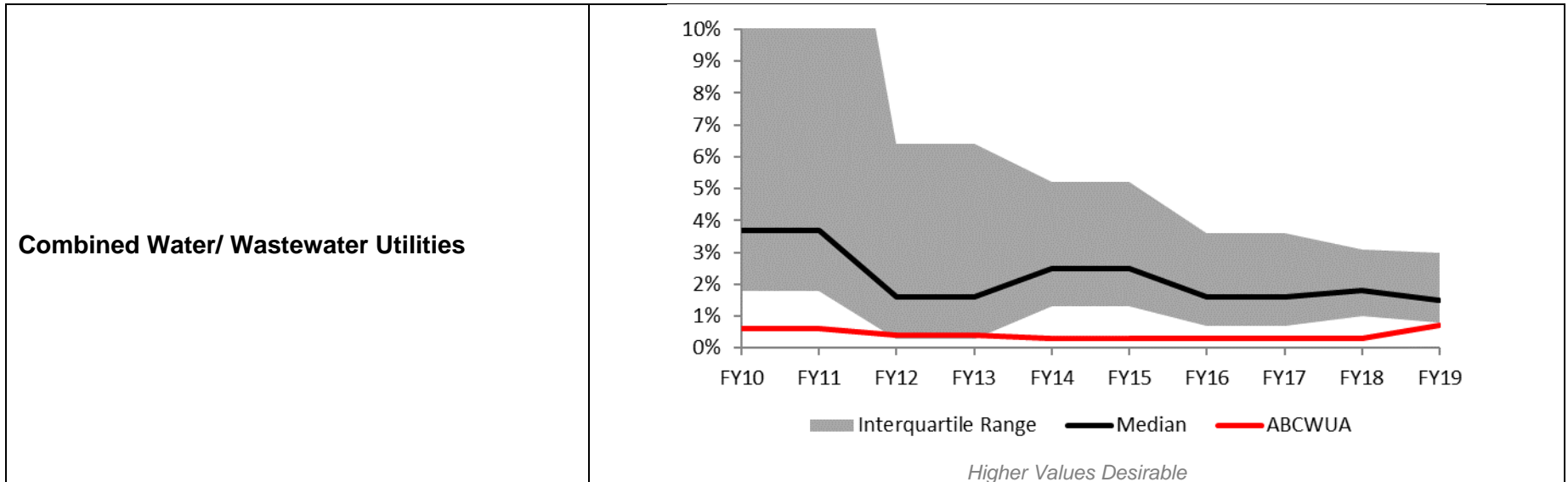
Higher Values Desirable

**FY20 Performance Plan
Goal 4: Business Planning and Management**

Performance Results (Wastewater Pipeline & Collection)

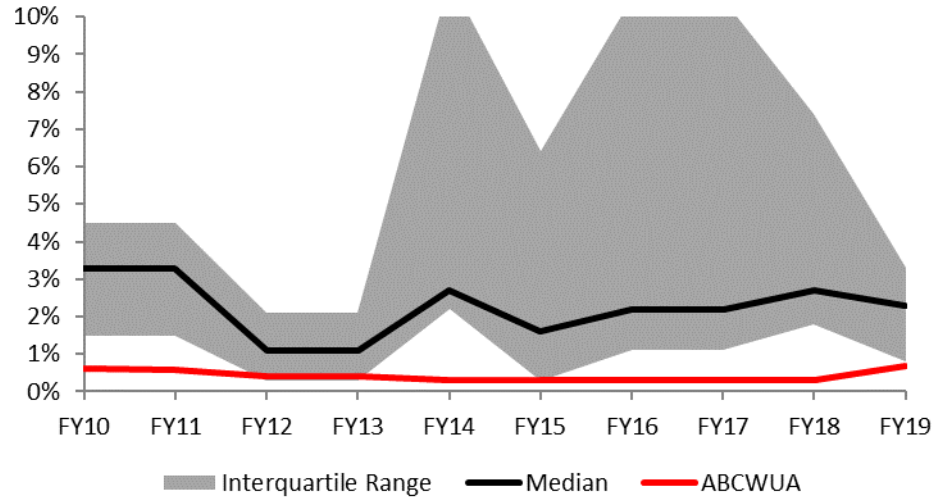
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the rate at which the Water Authority is meeting its individual need for infrastructure renewal or replacement	Total actual expenditures reserved for renewal and replacement and total present worth for renewal and replacement needs for each asset group	0.3%	0.3%	0.3%	0.3%	0.7%	0.7%	Reduce corrective maintenance by investing in infrastructure improvements to the system

Industry Benchmarks



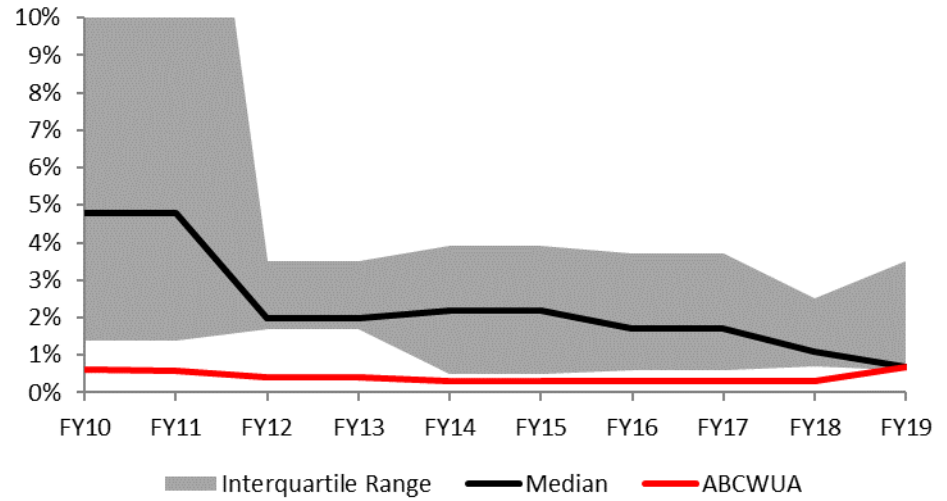
FY20 Performance Plan
Goal 4: Business Planning and Management

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



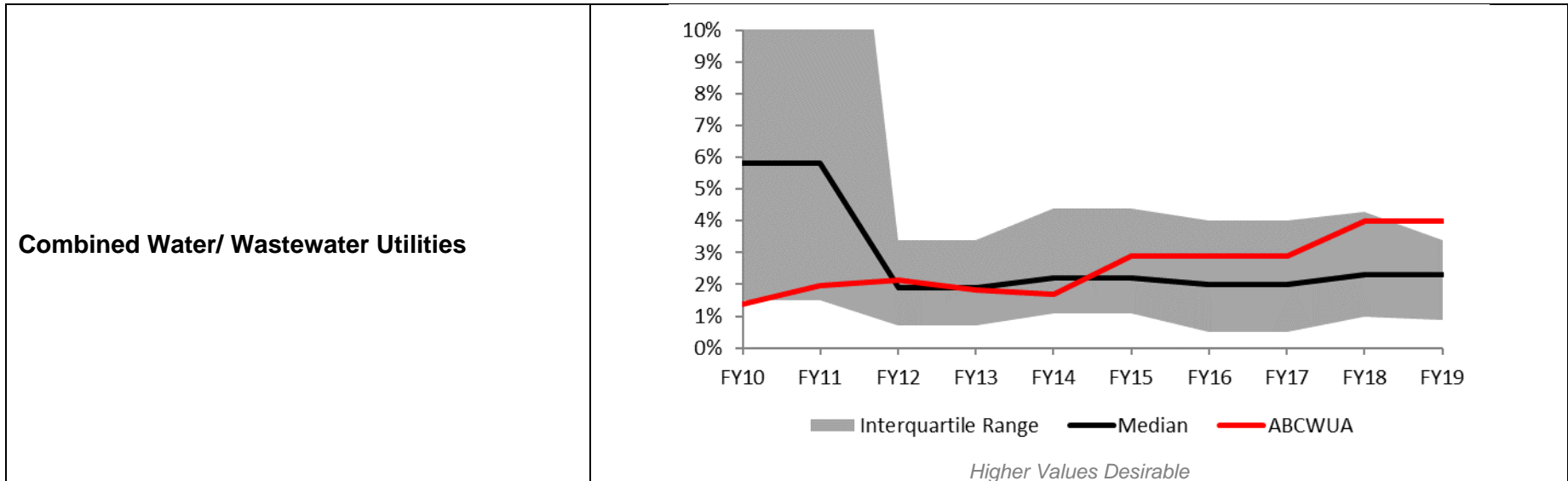
Higher Values Desirable

FY20 Performance Plan
Goal 4: Business Planning and Management

Performance Results (Wastewater Facility & Pumping)

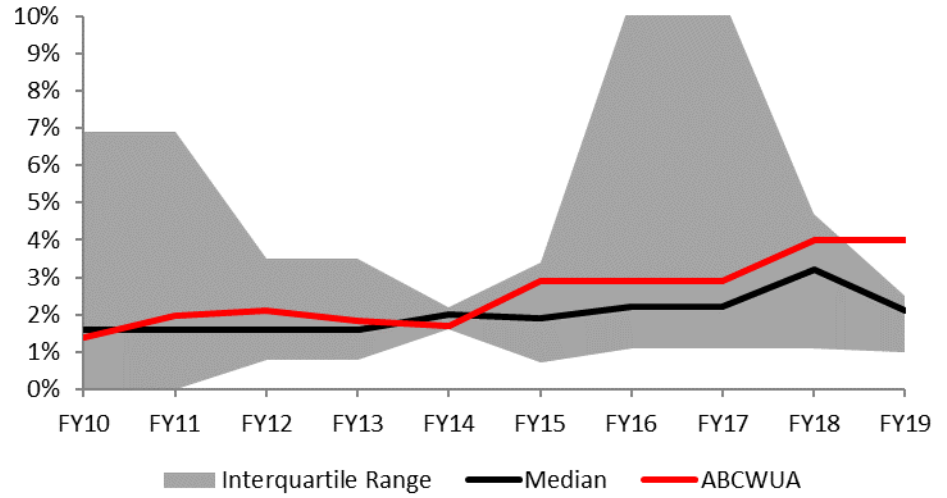
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Quantify the rate at which the Water Authority is meeting its individual need for infrastructure renewal or replacement	Total actual expenditures reserved for renewal and replacement and total present worth for renewal and replacement needs for each asset group	3.6%	2.9%	4.0%	4.0%	4.0%	4.0%	Reduce corrective maintenance by investing in infrastructure improvements to the system

Industry Benchmarks



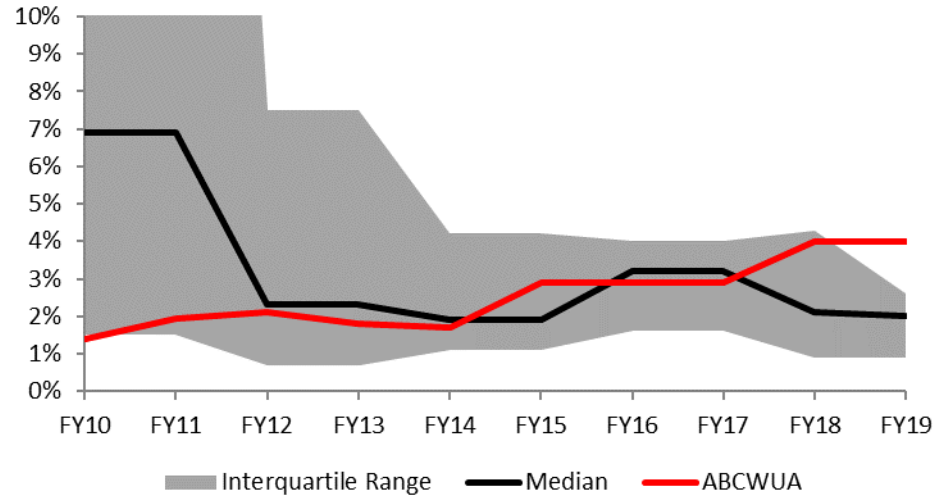
FY20 Performance Plan
Goal 4: Business Planning and Management

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 4: Business Planning and Management

Results Narrative

This measure quantifies the degree to which a water or wastewater utility is replacing its infrastructure based on target lives for both water and wastewater asset groups. Data for these asset groups are provided in four categories:

1. Water pipeline/distribution
2. Water treatment facility and pumping
3. Wastewater pipelines and collection
4. Wastewater treatment facility and pumping

Measurement Status

The Water Authority's performance in this measure has been below the median range for the past three fiscal years in three of the four asset groups. The wastewater treatment performance is within or above the median range because of the significant replacement and rehabilitation program at the wastewater treatment plant. Since FY07, the Water Authority increased its capital program spending from \$30 million per year to \$70 million per year, including significant increases in planned rehabilitation spending from \$22 million to \$58 million. Since FY15, the utility has added \$3 million each year cumulatively to reach an additional \$30 million funding by 2023.

In FY08, the Water Authority formally established its asset management program to prolong asset life, improve decisions about asset rehabilitation, repair, and replacement, and meet customer expectations with a focus on system sustainability and reliability. The program is an extensive, well thought out 'Business Model' that helps the Water Authority make better acquisition, operations and maintenance, renewal, and replacement decisions. In FY11, the Water Authority completed an Asset Management Plan (AMP) as a part of its asset management program. The AMP provides a 30-year projection that allows the Water Authority to budget for renewals and replacements into the future. In addition, the Water Authority upgraded its work order system in FY18 in a manner that supports asset management business objectives. Moreover, the Water Authority has incorporated asset management principles and management of risk into ten-year Capital Improvement Plan. The Water Authority will continue to develop strategic asset management plans for its critical asset systems.

2018 Customer Opinion Survey

- 89% of customers feel that it is very or somewhat important to invest in the repair and replacement of old water and sewer lines

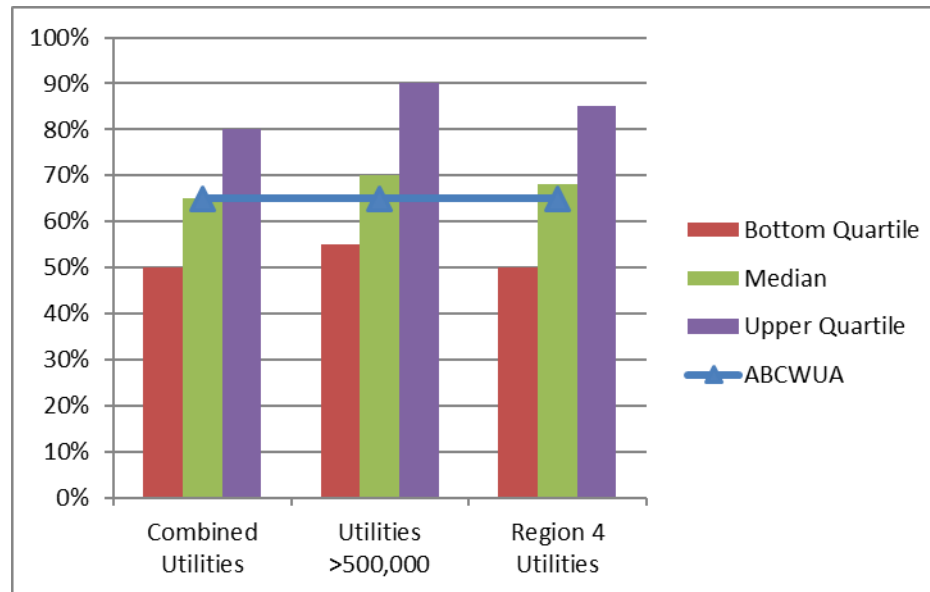
FY20 Performance Plan
Goal 4: Business Planning and Management

4-4 Triple Bottom Line Index

Performance Results

Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current /Est		Projected
Effectiveness	Quantify the utility's sustainability efforts	Self-assessment based on Triple-Bottom-Line Checklist		FY16	FY17	FY18	FY19	FY20	Assess the utility's sustainability efforts
			58%	50%	60%	65%	65%		

Industry Benchmarks



Generally, higher values are desirable

FY20 Performance Plan
Goal 4: Business Planning and Management

Results Narrative

This indicator provides a measure of a utility's sustainability efforts. It is calculated based on self-assessed points assigned in the various categories in the Triple-Bottom-Line (TBL) Checklist. The TBL framework represents a balanced view of environmental, social, and economic considerations. The value assigned to each statement is based on evidence that existed during the reporting period to support the statement, as reviewed and rated by senior utility management. Cumulative scores can range from 0 to 20 and are presented as percentages (total score / 20 x 100%).

Measurement Status

The Triple-Bottom-Line Index was recently included by AWWA in their benchmarking survey. The Water Authority has been measuring this Index for the last three fiscal years. It will continue to track these indicators and benchmark with industry peers and determine targets for its sustainability programs.



The Water Authority received the **2018 Exemplary Source Water Protection Award**. The AWWA distinguished the Water Authority from its peers for its innovative approach for protecting its source waters and the conjunctive management of its water resources to ensure long-term safety and resiliency of our water supply. Source water protection activities highlighted by the AWWA in its selection included the Water Authority's low-income credit program, the monitoring and mapping of potential and known groundwater contamination in the service area, and the comprehensive water planning efforts. The Water Authority also updated its source water protection plan.

FY20 Performance Plan
Goal 4: Business Planning and Management

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Goal 5

Organizational Development

Guiding Goal Statement

Sustain a well informed, trained, motivated, safe, organized, and competitive work force to effectively meet the expectations of the customers, community, and Board in accordance with adopted policies and mandates.

Goal Performance Scorecard

Ref #	Performance Measure	Status	Trend
5-1	Employee Health and Safety Severity Rate	▲	▲
5-2	Training Hours per Employee	■	■
5-3	Customer Accounts per Employee (Water)	▲	▲
5-3	Customer Accounts per Employee (Wastewater)	▲	▲
5-4	Employee Turnover	▲	▲
5-5	Retirement Eligibility	▲	▲
5-6	Organizational Best Practices Index	▲	▲
Overall Goal Status		▲	▲

Performance Key

▲	■	■	▼
Excellent	Good	Fair	Poor

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Linkage of Objectives to Performance Measures

FY20 Objectives	Measure Reference
Reduce injury hours to 2,625 hours or less to improve productivity and reliability of services provided by employees by the end of the 4th Quarter of FY20.	5-1
Complete two employee wellness challenges per fiscal quarter focusing on nutrition, physical activity and weight loss, and disease and injury prevention to employees by the end of the 4th Quarter of FY20.	5-1
Maintain an average utility-wide vacancy rate of no greater than 5% through the end of FY20.	5-4
Continue to emphasize Employee Recognition through several initiatives including supervisor training, employee incentive awards, on-the-spot awards, and years of service awards.	5-6
Conduct Employee Engagement and Satisfaction Survey by the end of the 2nd Quarter of FY20; assess and communicate the survey results to employees by the end of the 4th Quarter of FY20.	5-6
Consistent with the EPA's Utility of the Future (UOTF), develop a program that focuses on employee and leadership development to achieve sustainability, including actions such as hiring and retaining motivated, participative employees, creating a collaborative organization and positive workplace environment, and providing a positive environmental and community impact; the program may examine potential sources of purpose and meaning for employees and encourage projects and communication efforts that enhance a sense of meaning and purpose.	5-6

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Performance Measure Division Responsibility

Ref #	Performance Measure	Operations	Financial / Business Services	Human Resources
5-1	Employee Health and Safety Severity Rate			✓
5-2	Training Hours per Employee			✓
5-3	Customer Accounts per Employee (Water)	✓	✓	
5-3	Customer Accounts per Employee (Wastewater)	✓	✓	
5-4	Employee Turnover	✓		✓
5-5	Retirement Eligibility	✓		✓
5-6	Organizational Best Practices Index	✓	✓	✓

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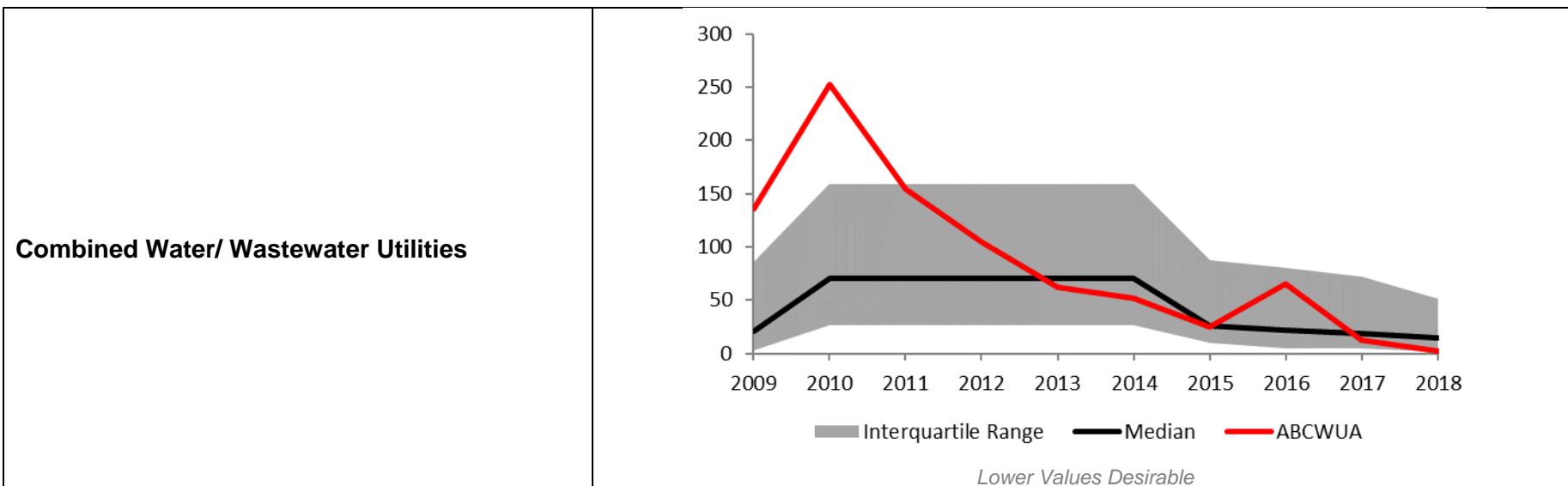
**FY20 Performance Plan
Goal 5: Organization Development**

5-1 Employee Health and Safety Severity Rate

Performance Results

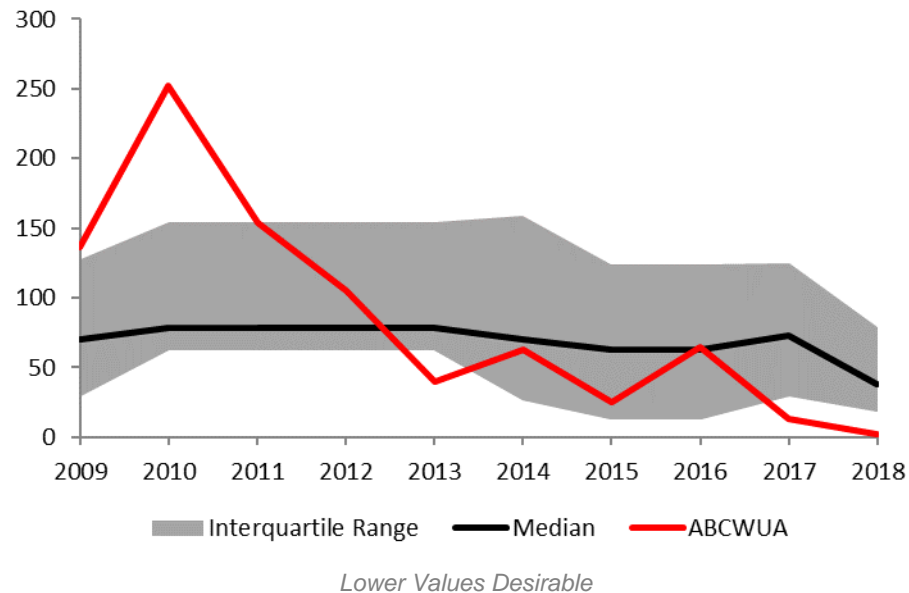
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
Effectiveness	Quantify the rate of employee days lost from work due to illness or injury	Total workdays away from work and total hours worked by all employees	34	2015	2016	2017	2018	2019	Improve employee health and safety to reduce total workdays from work
				25	65	13	2	3	

Industry Benchmarks

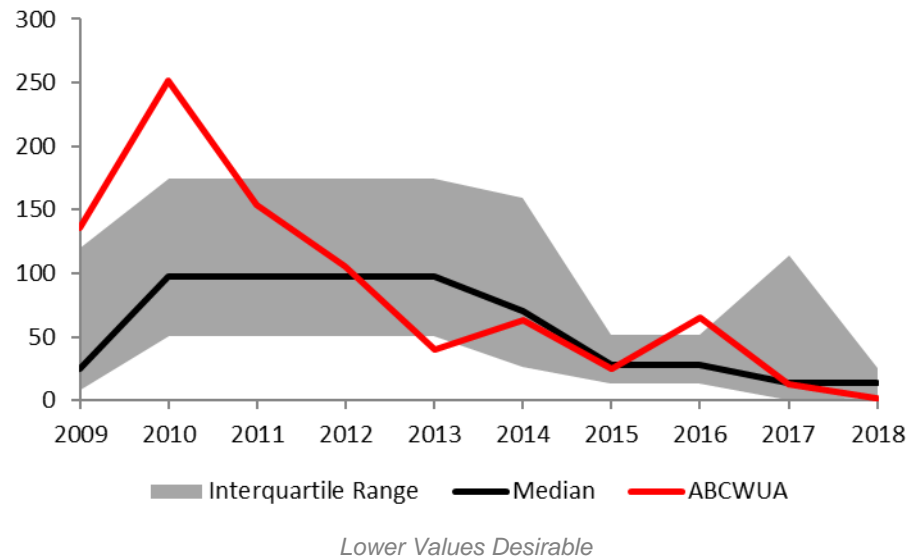


**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Utilities located in Region 4



FY20 Performance Plan
Goal 5: Organization Development

Results Narrative

The Occupational Safety and Health Administration (OSHA) has established accident and illness recording and reporting requirements that affect most organizations. The OSHA standard is recommended because it has broad applicability and most utilities are already recording the needed data. The OSHA lost-days measure quantifies the rate of days lost due to illness or injury per 100 employee-years of work. It was selected as a good measure for water and wastewater utilities because it summarizes a very useful set of data that is readily available at most utilities.

Excessive lost workdays affect productivity and can cost utilities in a number of ways. Health care, insurance premiums, and overtime can all be adversely impacted by lost work due to injury or health reasons.

Measurement Status

The Water Authority's performance in this measure was below the median range since the Water Authority began measuring its performance in 2005. Since 2006, the Water Authority's performance in this measure has improved every year with a 100% decrease in injury hours over the last ten years. From past policy objectives, the Water Authority has developed safe work incentives and routine employee safety training. In addition, the Water Authority improved its Light Duty Program in order to get workers back to the job safely. This new process has provided a clearer understanding on what needs to take place when an injury occurs including the documentation, payroll coding and expectation and assignment of the employee. Starting in 2009, the Water Authority awarded its employees with a \$300 incentive payment, taxes paid for meeting injury reduction goals. Overall, employees met the target goal 10 out of the 13 years. A policy objective for FY20 is to reduce injury hours to 2,625 hours or less to improve productivity and reliability of services provided by employees; the goal is connected with a \$300 per employee safety incentive program.

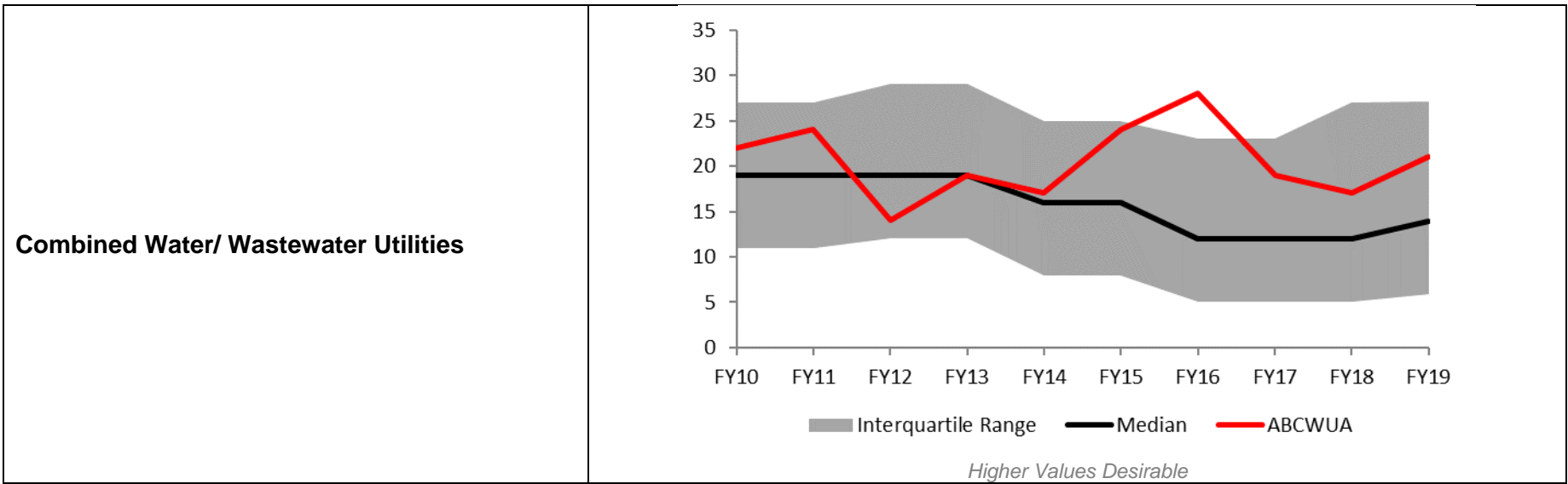
**FY20 Performance Plan
Goal 5: Organization Development**

5-2 Training Hours per Employee

Performance Results

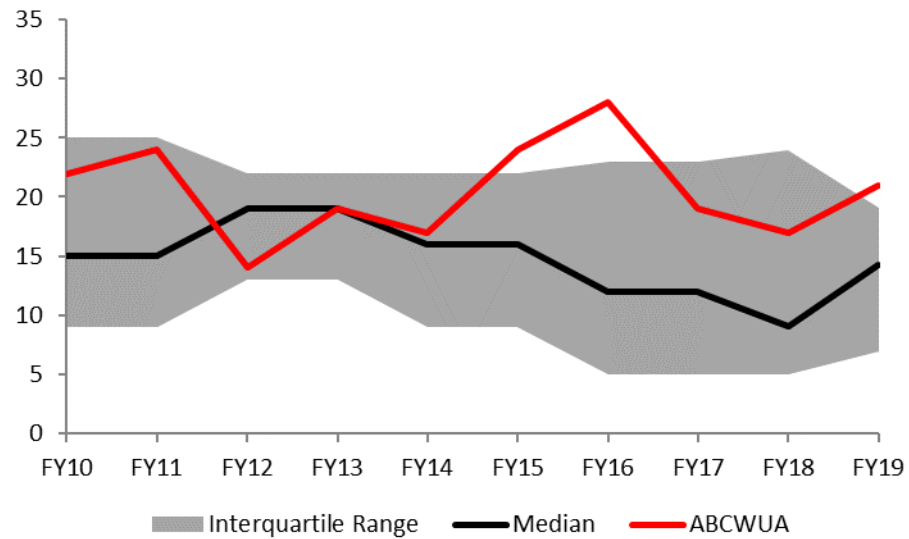
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Effectiveness	Measure the quantity of formal training Water Authority employees actually completing	Number of formal training hours per employee per year	22	28	19	17	21	21	Improve employee knowledge and skills to maintain a motivated and effective works force

Industry Benchmarks



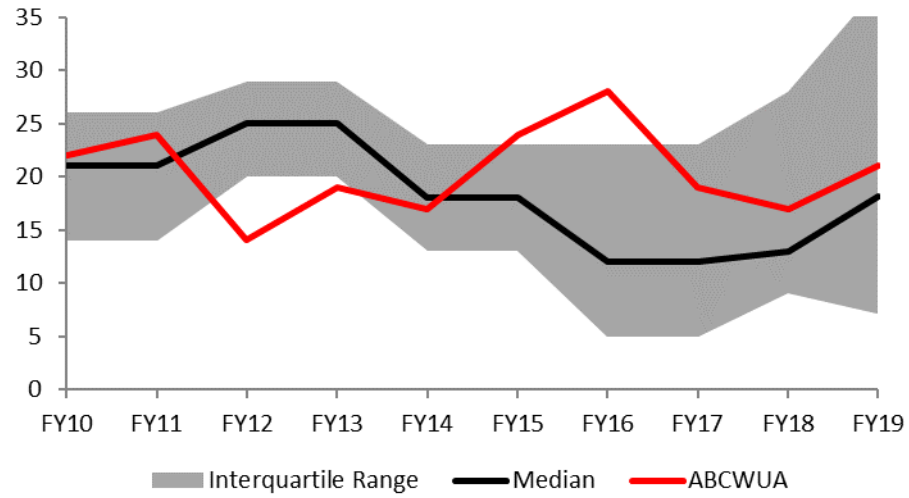
**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 5: Organization Development

Results Narrative

This measure is intended to reflect the organization's commitment to formal training as a means of improving employee knowledge and skills. It also does not address the effectiveness or efficiency of the training programs used by the utility.

Measurement Status

The Water Authority's performance in this measure has been within or above the median range for the past three fiscal years. The Water Authority adopted a policy objective in FY09 to increase certification training hours and by creating an organizational succession plan by implementing hiring, training and certification programs for mechanics, electricians and electronics technicians. The Water Authority has improved its performance in this measure in FY10 and FY11 from implementation of several training programs. In the past two fiscal years, the utility has developed and implemented a training program for meter replacement program as well as the technicians maintaining the AMI program. The Water Authority will continue to improve its performance in FY20 by implementing a new two-year mid-management certification training program that allow growth in the knowledge, skills and abilities for these employees and provide for better leadership and supervisor capabilities.

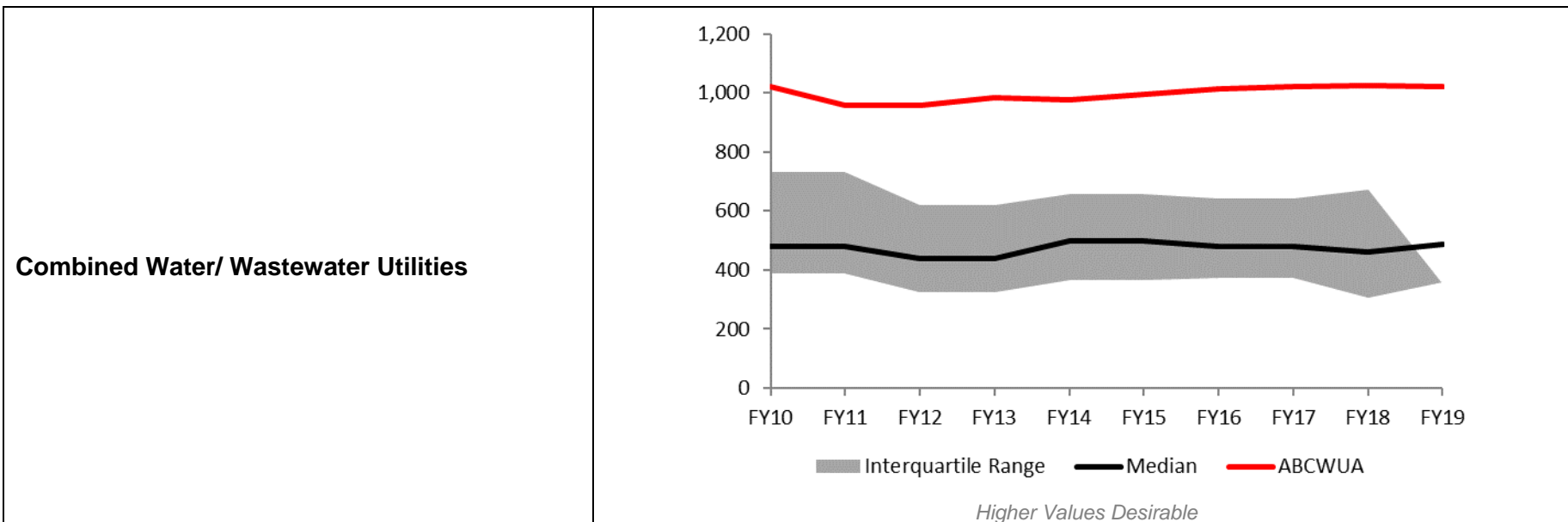
**FY20 Performance Plan
Goal 5: Organization Development**

5-3 Customer Accounts per Employee

Performance Results (Customer Water Accounts per Employee)

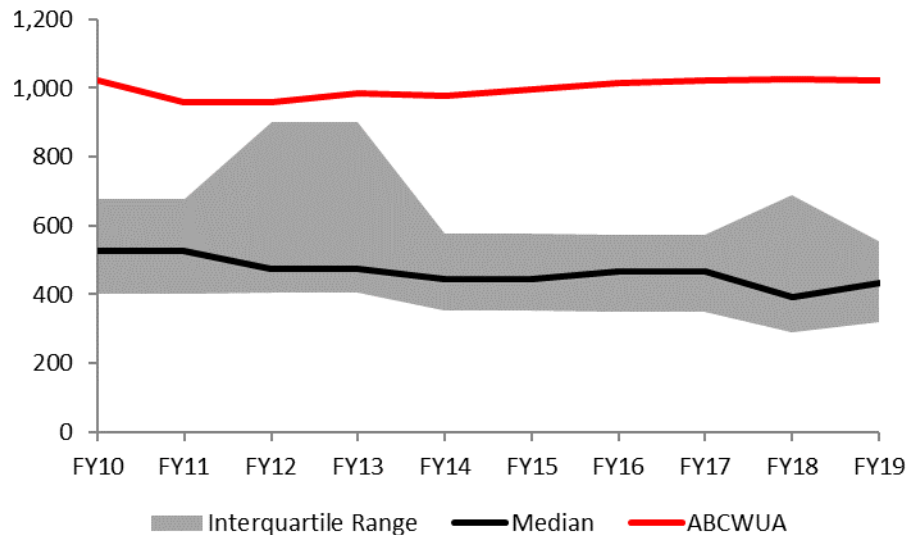
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Measure employee efficiency	Number of active accounts per employee and average million gallons of water delivered and processed per day per employee	1,019	1,014	1,020	1,024	1,020	852	Provide efficient service to our customers to meet their expectations

Industry Benchmarks



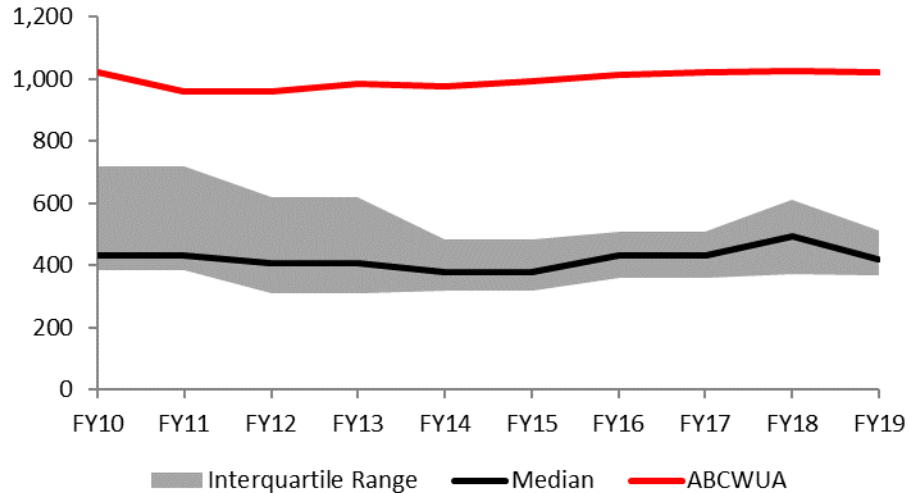
**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



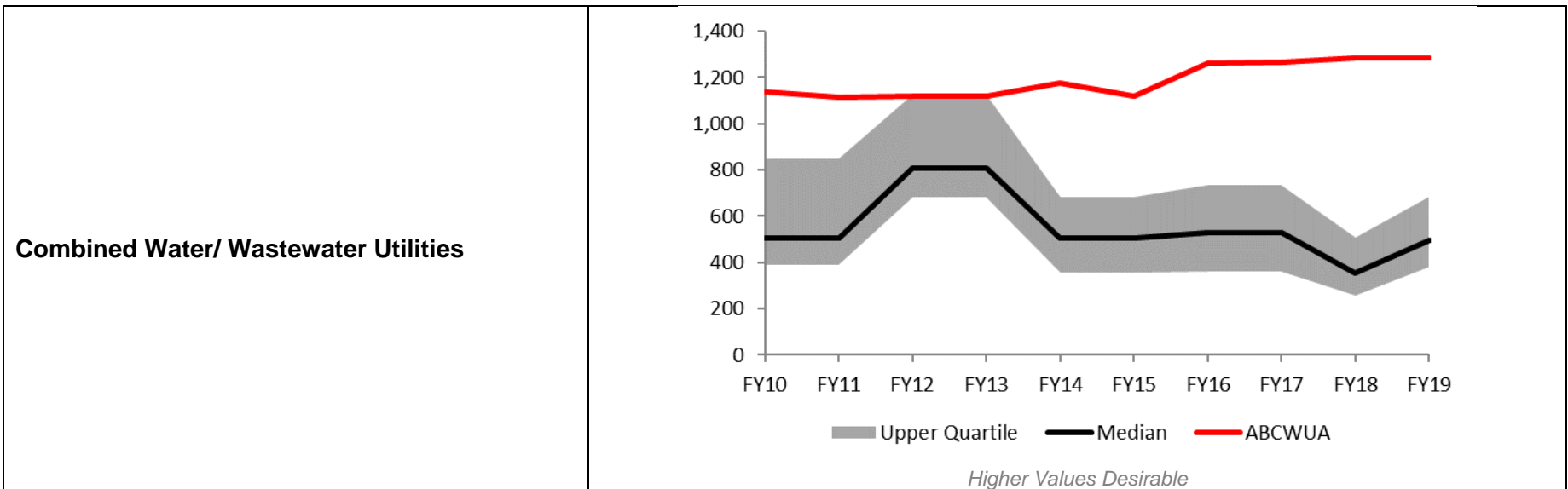
Higher Values Desirable

**FY20 Performance Plan
Goal 5: Organization Development**

Performance Results (Customer Wastewater Accounts per Employee)

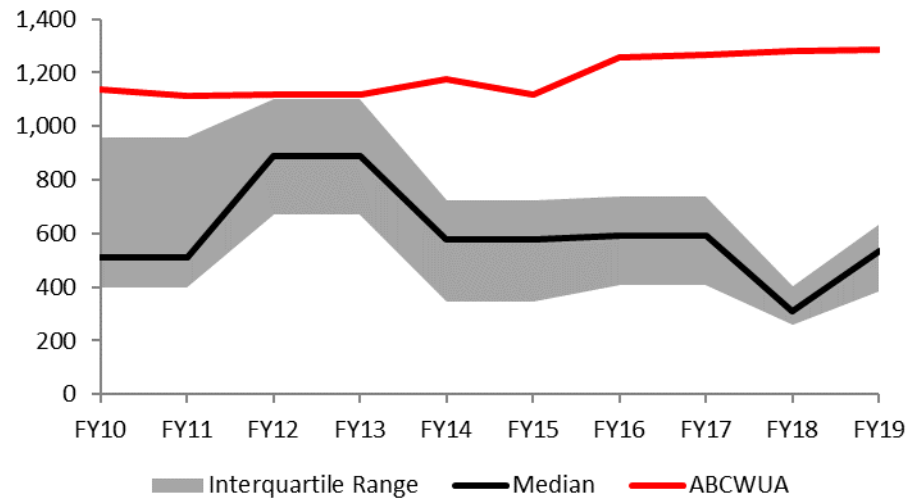
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Measure employee efficiency	Number of active accounts per employee and average million gallons of water delivered and processed per day per employee	1,269	1,259	1,265	1,283	1,284	1,285	Provide efficient service to our customers to meet their expectations

Industry Benchmarks



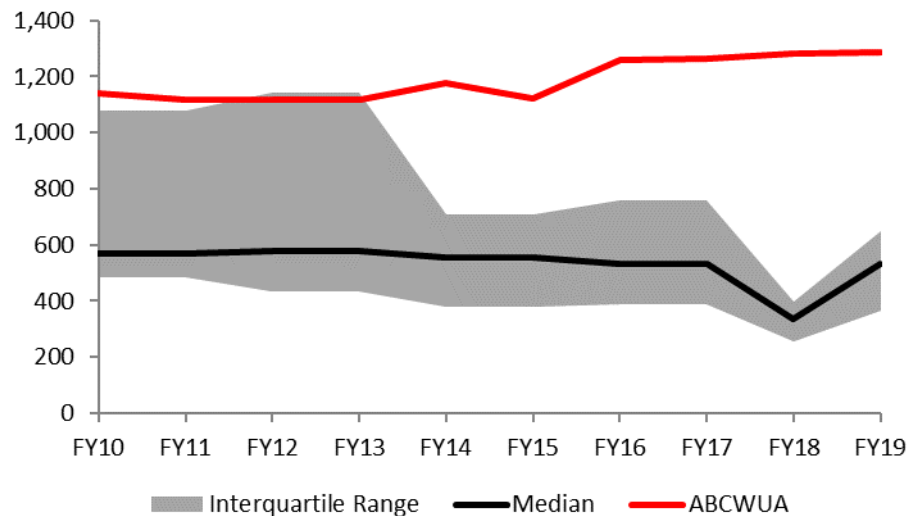
**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 5: Organization Development

Results Narrative

These measures measure employee efficiency expressed by water and wastewater accounts per employee.

Measurement Status

The Water Authority's performance in this measure has been within the top quartile for the past three fiscal years for water and wastewater accounts per employee. The utility anticipates no change in the metric for FY20.

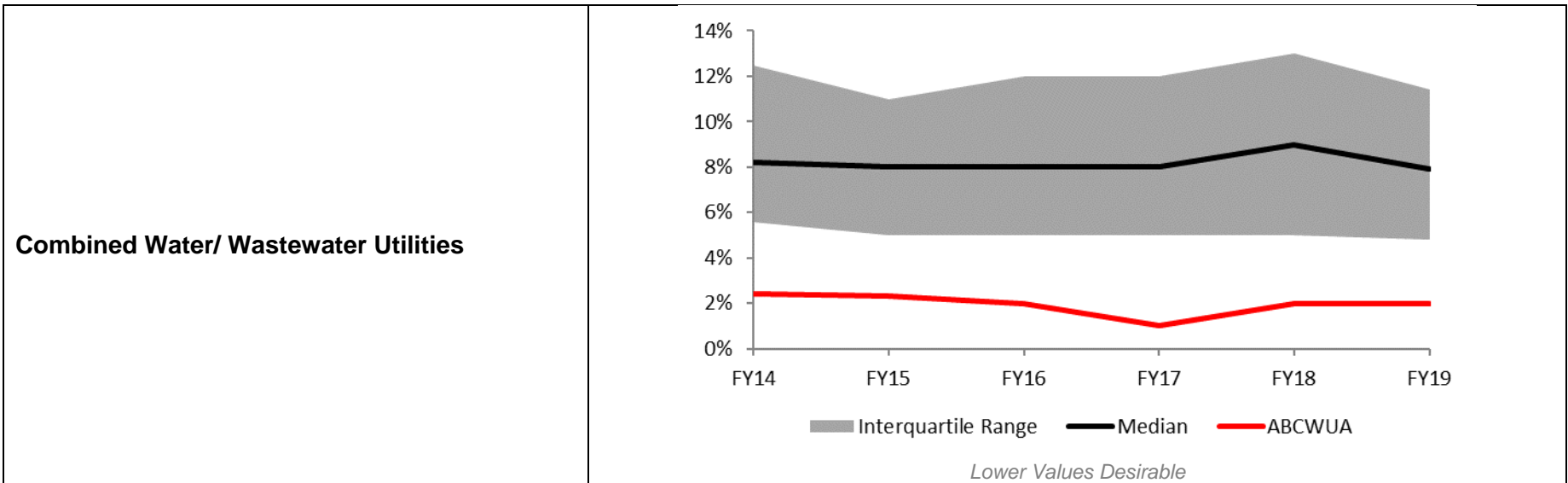
**FY20 Performance Plan
Goal 5: Organization Development**

5-4 Employee Turnover

Performance Results

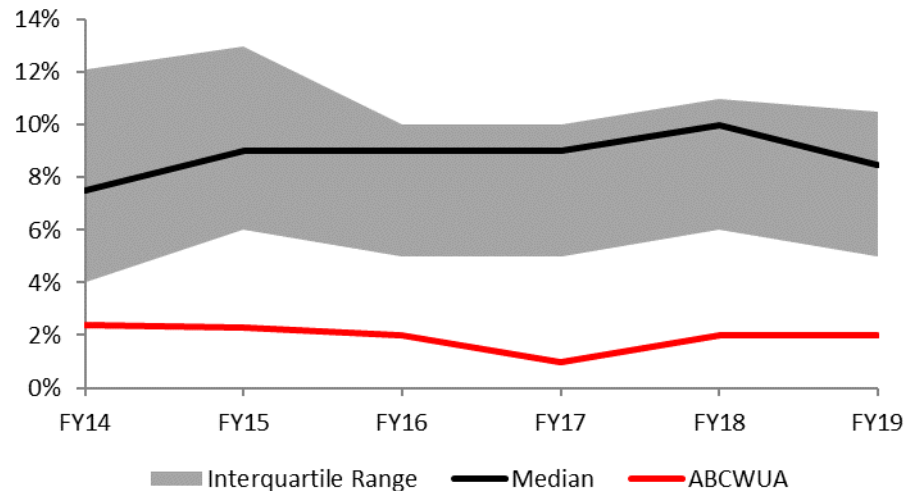
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Quantify the annual employee departures	Number of regular employee departures during the reporting period / Total number of FTEs	1.6%	2%	1%	2%	2%	2%	Determine staffing levels for operation needs and meeting service levels

Industry Benchmarks



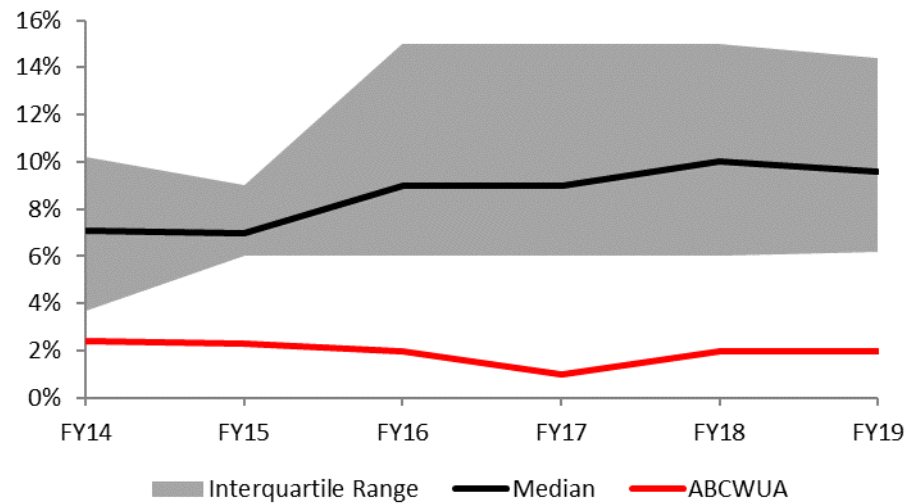
**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 5: Organization Development

Results Narrative

This indicator quantifies annual employee departures normalized by the utility's workforce (as FTEs) per year. Regular employee departures include employees who leave voluntarily, retire, or are let go during the reporting period. Regular employees are those who worked more than 1,000 hours during the reporting period.

Measurement Status

The utility's performance is above the median range. The utility will continue to track this metric to determine staffing levels for operation needs and meeting service levels.

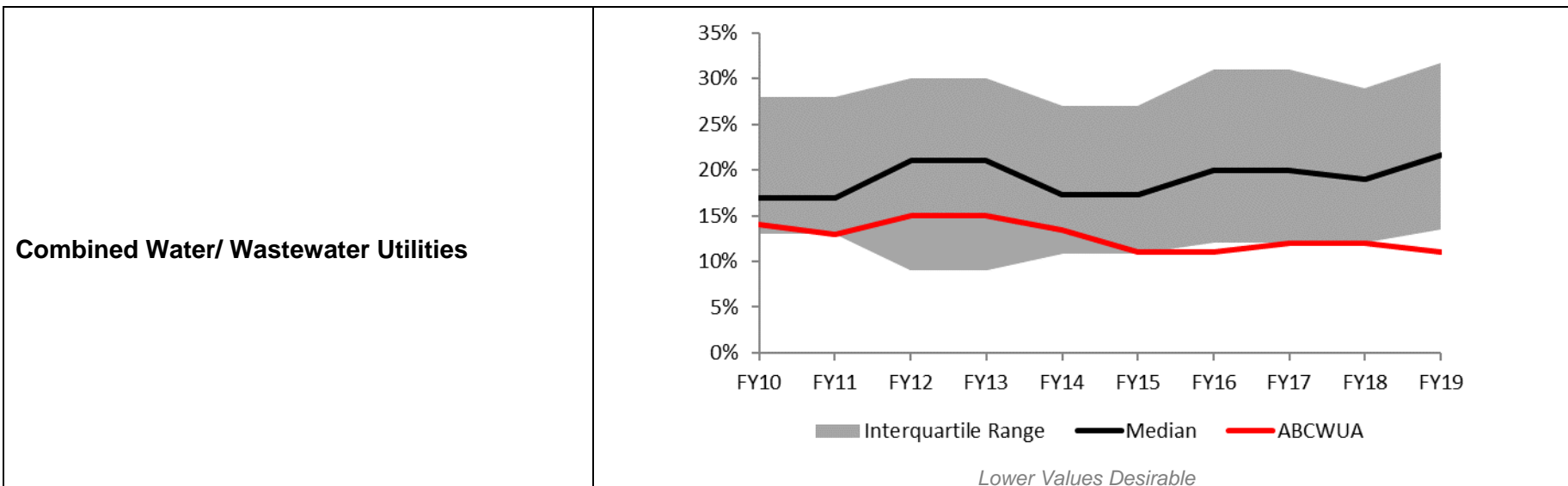
**FY20 Performance Plan
Goal 5: Organization Development**

5-5 Retirement Eligibility

Performance Results

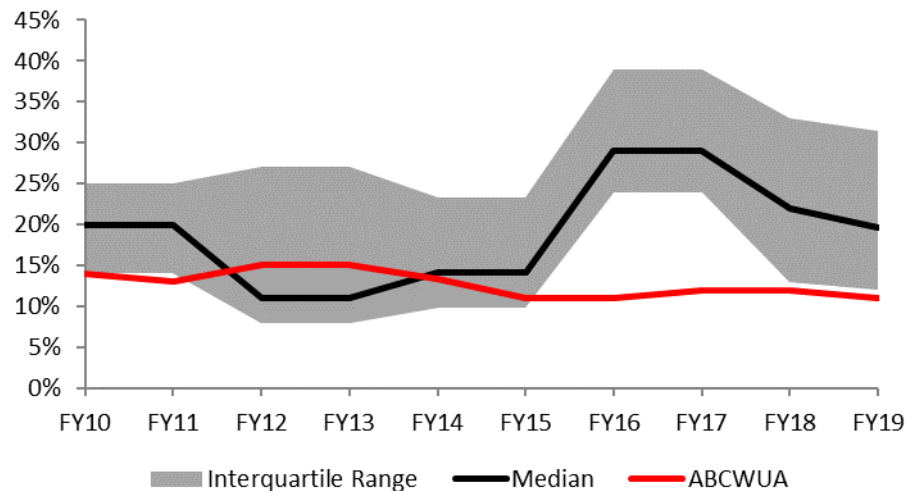
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Efficiency	Quantify the number of employees who can retire	Number of regular employees eligible for retirement in the next 5 years / Total number of FTEs	12%	11%	12%	12%	11%	11%	Determine staffing levels for operation needs and meeting service levels

Industry Benchmarks



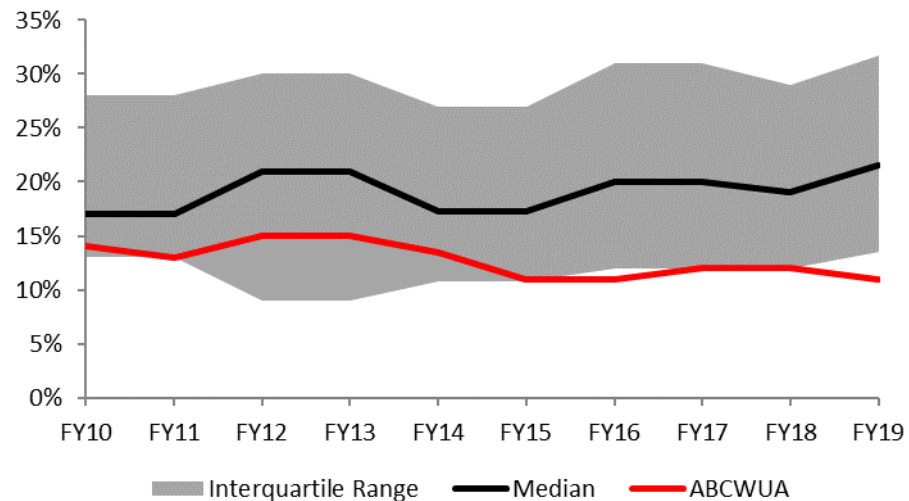
**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Lower Values Desirable

Utilities located in Region 4



Lower Values Desirable

FY20 Performance Plan
Goal 5: Organization Development

Results Narrative

This indicator provides a measure of the number of regular employees eligible for retirement normalized by the utility's workforce (as FTEs). Regular employees are those who worked more than 1,000 hours during the reporting period.

Measurement Status

The utility's performance is within or above the median range. The utility will continue to track this metric to determine staffing levels for operation needs and meeting service levels.

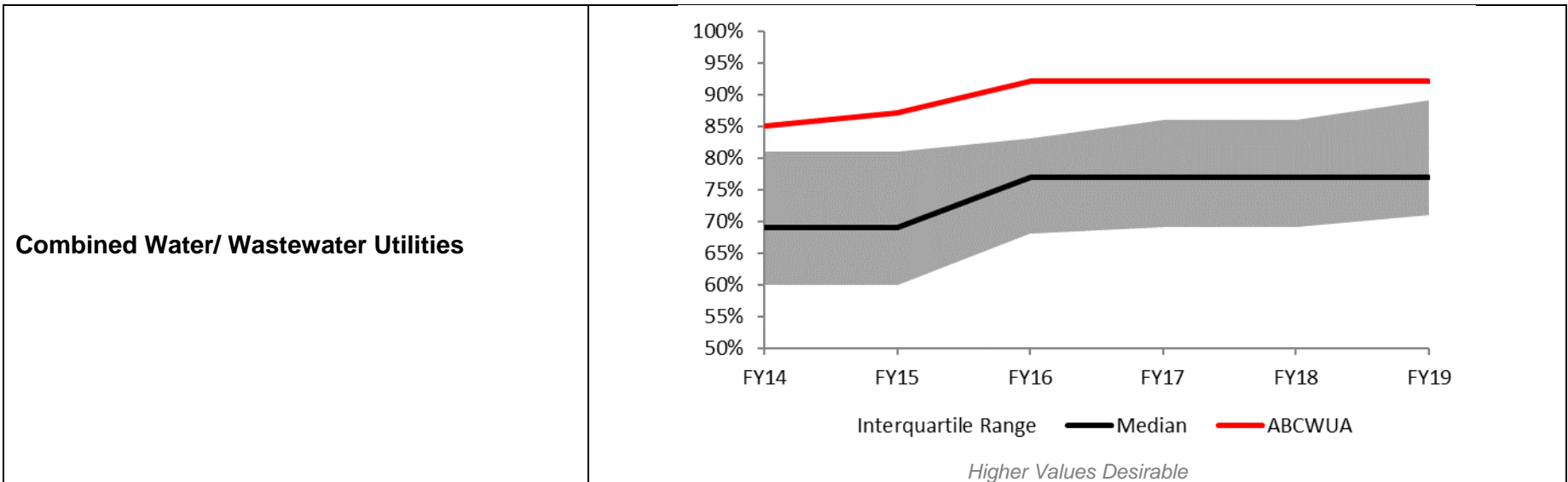
**FY20 Performance Plan
Goal 5: Organization Development**

5-6 Organizational Best Practices Index

Performance Results

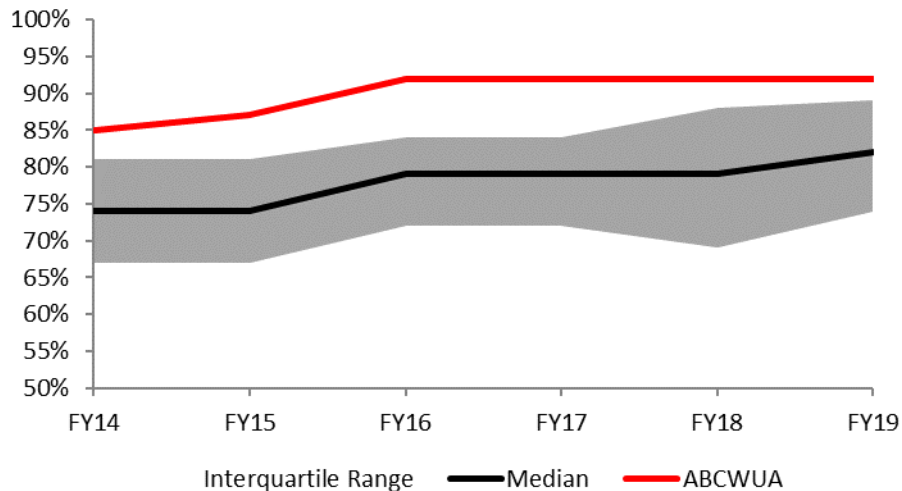
Measure Type	Purpose	Inputs	Outputs					Outcome	
			Baseline	Prior Year Actuals			Current/Est		Projected
				FY16	FY17	FY18	FY19	FY20	
Quality	To summarize the Water Authority's implementation of management programs important to water and wastewater utilities	Self-scoring system to identify the degree to which the Water Authority is implementing the seven organizational best practices	92%	92%	92%	92%	92%	92%	Implement best management practices to sustain a competitive work force

Industry Benchmarks



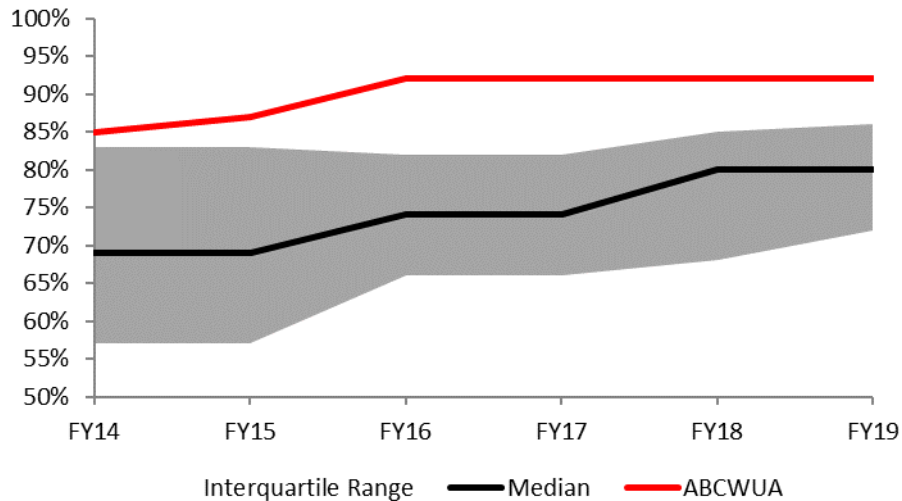
**FY20 Performance Plan
Goal 5: Organization Development**

Utilities with populations greater than 500,000



Higher Values Desirable

Utilities located in Region 4



Higher Values Desirable

FY20 Performance Plan
Goal 5: Organization Development

Results Narrative

This measure summarizes the status of implementation of good management practices at a utility. It is particularly useful for identifying potential benchmarking partners, especially organizations that may have advanced knowledge and experience with applying these tools. Correlations with other measures might show that performance in other areas is related to investments in improved management practices. The Water Authority used a self-scoring system to identify the degree to which organizational best practices are being implemented. The scoring system is based on assessments performed by the utility through the Effective Utility Management (EUM) framework. Scores for the fourteen areas are aggregated as a percentage.

The practices included in the index are as follows:

- Strategic Planning & Implementation
- Long-term Financial Planning
- Risk Management Planning
- Performance Measurement System
- Optimized Asset Management Program
- Customer Involvement Program
- Governing Body Transparency
- Drought Response/Water Shortage Contingency Plan
- Source Water Protection Plan
- Succession Planning
- Continuous Improvement Program
- Leadership Effectiveness

Measurement Status

The Water Authority's performance in this measure is above the median range for the past three fiscal years. After implementing the areas of improvement from the EUM assessments, the Water Authority anticipates continued progress on this measure. This measure is particularly useful for identifying potential benchmarking partners, especially organizations that may have advanced knowledge and experience with applying these tools. The Water Authority is working on its EUM program which incorporates the benchmarking performance indicators from the AWWA Benchmarking program. The utility will utilize the EUM program to make performance improvements in its operations and service delivery by examining its performance on a quarterly basis.



The Water Authority received the **Gold** Excellence in Management Award in 2015 and 2019 recognizing the utility's significant achievement in utility management and adopting successful management practices.

FY20 Performance Plan
Goal 5: Organization Development



In 2016 and 2019, the Water Authority was been recognized as a Utility of the Future Today. The Utility of the Future (UOTF) Today Recognition Program is a partnership of the Environmental Protection Agency and water sector organizations—the National Association of Clean Water Agencies, the Water Environment Federation, the Water Research Foundation and the WaterReuse Association. The program celebrates the progress and exceptional performance of utilities while supporting the widespread adoption of the innovative UOTF business model. Utilities were selected for recognition based upon the adoption of UOTF principles (water reuse, watershed stewardship, beneficial biosolids reuse, community partnering & engagement, energy efficiency, energy generation & recovery, and nutrient & materials recovery) as the “Organizational Culture of the Future.” The Water Authority was recognized for its efforts in transitioning from a traditional wastewater treatment system to a community-based resource recovery center and leader in the overall sustainability and resilience of the community the utility serves. UOTF acknowledged the Water Authority's progress in utility management, community partnerships and engagement, beneficial biosolids reuse, and water reuse.

In 2018, the Water Authority was recognized for its excellence in utility management through the highest accolade given by the Association of Metropolitan Water Agencies – the Platinum Award. The utility was recognized for high-quality, affordable water, responsive customer service, attention to resource management, infrastructure renewal and environmental protection.

