

SAFE

ABUNDANT

DEPENDABLE

HIGH-QUALITY

# LOW-COST WATER

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2020 FINANCIAL PLAN



# CENTRAL ARKANSAS WATER

## OUR MISSION

To enhance the quality of life for Central Arkansas by delivering high-quality water and dependable service that exceed customer expectations; protecting and ensuring a long-term water supply for future generations; and serving as responsible stewards of public health, utility resources, and the environment.

## THE VALUES PICTURE

- P**ROFESSIONALISM: I will be courteous and responsible in my dealings with others and will adhere to the technical and professional standards of my job.
- I**NTEGRITY: I will display honesty in my work and interactions with others and will adhere to high moral and ethical standards. I will be fiscally responsible and conservative in the use of funds and resources entrusted to our utility.
- C**ONTINUAL IMPROVEMENT: I will search for a new and better way of doing things, embracing new technologies and sustainable business practices. I will seek ways to enhance my own professional development, as well as that of my co-workers.
- T**EAMWORK: I will support my co-workers with enthusiasm, work collaboratively and do my part to ensure Central Arkansas Water achieves its goals.
- U**NITY: I will work in harmony with others to ensure a positive, safe and healthy work environment. I will consider the needs and viewpoints of customers and community stakeholders and work collaboratively with each. I will appreciate diversity and value the differences that each individual brings to any situation.
- R**ESPECT: I will treat others with high regard, fairness and consideration.
- E**XCELLENCE: I will work to ensure that Central Arkansas Water meets and exceeds “world class” standards and the expectations of those I work with and the customers we serve.





GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Central Arkansas Water  
Arkansas**

For the Fiscal Year Beginning

**January 1, 2019**

*Christopher P. Morill*

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Central Arkansas Water for the Utility's 2019 annual budget.

In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operation guide, as a financial plan, and as a communication device.

The award is valid for a period of one year only. We believe the current budget continues to conform to program requirements, and we are submitting it to GFOA for an award.

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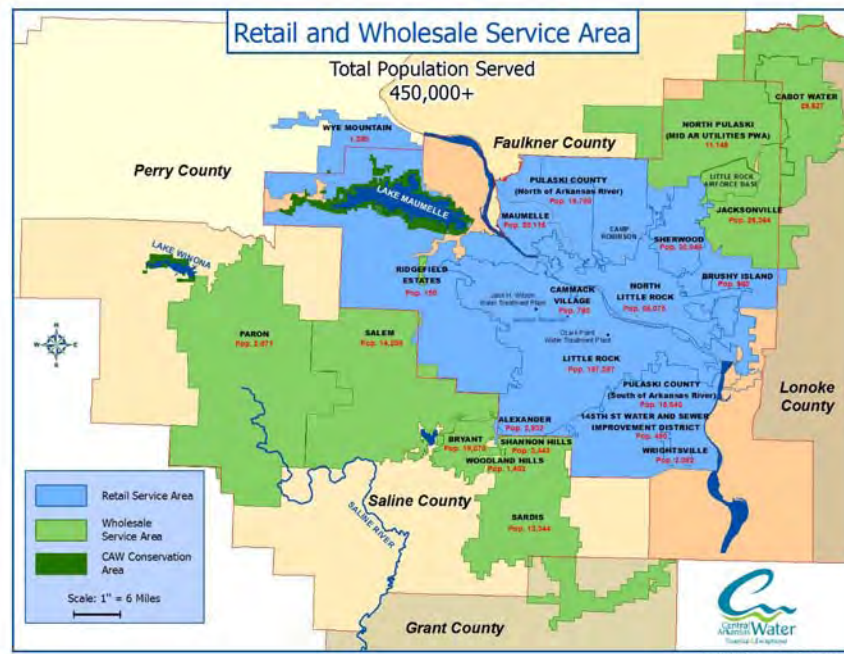
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# INTRODUCTION

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## About Central Arkansas Water

Central Arkansas Water (CAW or the Utility) is the largest water supplier in the state of Arkansas. The Utility plays an integral role in the quality of life for residents and the economic health of the communities it serves. As a regional water supplier serving a population of over 450,000, CAW contributes to the public health and well-being of one in every seven Arkansans. In addition, CAW supplies the water needed by industries that compete in regional, national, and international markets. The Utility serves approximately 205,000 metered connections through retail and wholesale service to customers in Pulaski, Saline, Grant, Perry, Lonoke, White, and Faulkner counties.



CAW's retail service boundaries encompass the cities and communities of:

- Little Rock
- North Little Rock
- Sherwood
- Maumelle
- Alexander
- Brushy Island Public Water Authority
- Cammack Village
- College Station
- Wrightsville
- Wye Mountain
- 145th Street Water and Sewer Improvement District
- Frazier Pike Public Facilities Board
- Unincorporated Pulaski County

CAW provides treated water and raw water for several areas in central Arkansas. CAW furnishes all of the treated water for:

- Bryant (Saline County)
- Shannon Hills (Saline County)
- Ridgefield Estates Public Facilities Board (Pulaski County)

The Utility contributes supplemental treated water supply to:

- Jacksonville Water Works (Pulaski County, including the Little Rock Air Force Base)
- Salem Water Users Association (Saline County)
- Sardis Water Association (Saline and Grant counties)
- Cabot WaterWorks (Lonoke County)
- Mid-Arkansas Utilities (Pulaski and Faulkner counties)
- Saline County Water & Sewer Public Facilities Board aka Woodland Hills (Saline County)

CAW also provides Paron-Owensville with raw water for its customer base, located in Perry County.

The Utility's service boundaries encompass approximately 530 square miles. The combined safe yield from the two surface water sources is 120 million gallons a day (MGD). The maximum treatment capacity of the Jack H. Wilson Water Treatment Plant (Wilson Plant) is 133 MGD, and the treatment capacity of the Ozark Point Water Treatment Plant (Ozark Point Plant) is 24 MGD. The Utility has 50.4 million gallons (MG) in remote storage capacity serving 22 pressure systems and another 25 MG storage in clearwells at the treatment plants. Additional system and service area statistics are included in the Appendix, beginning on page 227.

The major components of the system are:

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• <b>Raw Water Supply</b><ul style="list-style-type: none"><li>◦ Lake Winona</li><li>◦ Lake Maumelle</li></ul></li><li>• <b>Regulating Water Storage Facility</b><ul style="list-style-type: none"><li>◦ Jackson Reservoir</li></ul></li><li>• <b>Pipeline</b><ul style="list-style-type: none"><li>◦ 2,518 +/- miles of pipeline</li></ul></li></ul> | <ul style="list-style-type: none"><li>• <b>Remote Booster Stations</b><ul style="list-style-type: none"><li>◦ 25 booster pumping stations</li></ul></li><li>• <b>Remote Storage</b><ul style="list-style-type: none"><li>◦ 30 remote storage facilities</li></ul></li><li>• <b>Treatment Facilities</b><ul style="list-style-type: none"><li>◦ Wilson Plant</li><li>◦ Ozark Point Plant</li></ul></li></ul> |
|---|---|

CAW provides more than just water. CAW makes impacts locally, nationally, and even internationally with its High-Performing, Innovative, Values-Drive, Informed, and Passionate (HIVIP) employees. Whether it's repairing a broken water line, answering account questions for customers, or teaching other employees vital job skills, CAW employees display professionalism, integrity, continual improvement, teamwork, unity, respect, and excellence. CAW leaders share knowledge and passion for their workplace and the industry with conference and meeting presentations not only in Arkansas but across the country. Team members can also be seen outside of the workplace cultivating relationships with community partners celebrating central Arkansas and its inhabitants.



WE ARE

**HIGH-PERFORMING**  
**INNOVATIVE**  
**VALUES-DRIVEN**  
**INFORMED**  
**PASSIONATE**



## CAW's Past

The history of CAW and community water service in the Little Rock–North Little Rock metropolitan area dates back to the early 1800s when springs, shallow wells, and rainfall collected in cisterns provided water for the area. When CAW was created in 2001, it was the first merger in Arkansas to bring together municipal water systems owned by different cities. CAW exemplifies the kind of success and level of inter-local cooperation possible through a collaborative effort of city officials, utility officials, community leaders, and business leaders.

### Mid-1870s

Water was pumped from the Arkansas River directly into the distribution system for firefighting. A yellow fever epidemic in Memphis in 1879 prompted the Little Rock City Council to seek a solution to the area's water quality problems.

### Late 1880s to mid-1930s

A succession of investor-owned utilities served Little Rock and North Little Rock. (Home Water Company, Little Rock Water Works Company, American Water Works & Electric Company, Arkansas Water Works Company and North Little Rock Water Company.)



Treatment Water Well E – April 1925 – Arkansas Water Company employees try to figure out how to stop the leak.

### 1886

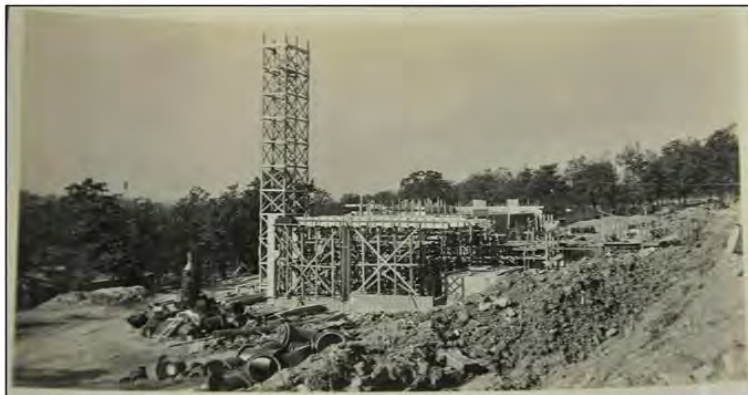
Two basins were constructed on Ozark Point, now the Ozark Point Water Treatment Plant. Water was pumped from the river and allowed to "settle" before flowing into the distribution system. The process significantly increased water quality at the time.

### 1936

The City of Little Rock purchased all facilities serving the south side of the river. The city and water utility started construction of a dam on the Alum Fork of the Saline River. Plans for a comprehensive supply project included the dam and lake (later named Lake Winona); a 39-inch, 35-mile raw water line; a new purification plant at Ozark Point; and an auxiliary reservoir three miles west of the plant. The buildings at the Lake Winona pump station were built by the Civilian Conservation Corp and Works Progress Administration as part of the New Deal.



Construction of Lake Winona began in 1936 and finished in 1938.



Oct. 29, 1937 – Ozark Point Plant under construction.



A water tank of the City of North Little Rock Water Department.

**1959**

The City of North Little Rock purchased the facilities serving its corporate boundaries and its rural customers, formerly owned by The North Little Rock Water Company from 1936 to 1959.

**2001**

A study by the University of Arkansas at Little Rock inspired the cities of Little Rock and North Little Rock to make a major change in their relationship by moving past geographical differences and corporate interests to benefit the entire customer base and surrounding area. The result was a unanimous decision by the cities' governing bodies and water commissions to merge Little Rock Municipal Water Works and the North Little Rock Water Department into a single regional water provider ultimately named Central Arkansas Water.



CAW installed its 2,500<sup>th</sup> mile of pipe in 2017.

**1958**

Studies showed fast growth and demand for water service in the region. As a result, Lake Maumelle was built to be much bigger than Lake Winona. It encompasses 13.9 square miles. Lake Maumelle's water flowed into the water system for the first time in 1958.



1957 – Lake Maumelle construction.

**1966**

The Jack H. Wilson Water Treatment Plant began treating water. Expansions over the years in 1977, 1984 and 1999 have taken its treatment capacity from its original 25 MGD to 133 MGD, as well as its storage capacity of five MG to 15 MG. Water flows from the Lake Maumelle Pumping Station by way of a 48-inch pipeline for over nine miles to the Wilson Plant. A 72-inch pipeline carries water more than 15 miles from Lake Maumelle to the Ozark Point Plant.



2017 aerial photo of the Wilson Plant.

**2018**

CAW consolidated with Maumelle Water Management in 2016. After a transition period, the Maumelle wells were decommissioned and CAW water began flowing to Maumelle customers in 2018.

**CAW's Present**

CAW remains a quasi-governmental entity, serving the best interest of its ratepayers. A seven-member Board of Commissioners governs the Utility, and a Chief Executive Officer (CEO) oversees day-to-day operations and administration. The Utility's organizational structure includes seven departments: Administration, Customer Service, Distribution, Engineering, Finance, Information Services, and Water Production.

CAW is an industry leader in the areas of excellent water quality, exemplary regulatory compliance, outstanding system reliability, prudent financial management, affordable rates, effective source-water protection, exceptional customer service, and strong public involvement. In the 2019 Memphis Light, Gas, and Water (MLGW) rate survey, CAW continues to offer one of the lowest water rates in the country.

**2019  
Utility Bill  
Comparisons**  
for Selected Cities

*Rates in effect January 2019*

**Electricity**      **Natural Gas**      **Water**

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# MLGW 2019 Rate Survey

## Ten Lowest Residential Water Bills



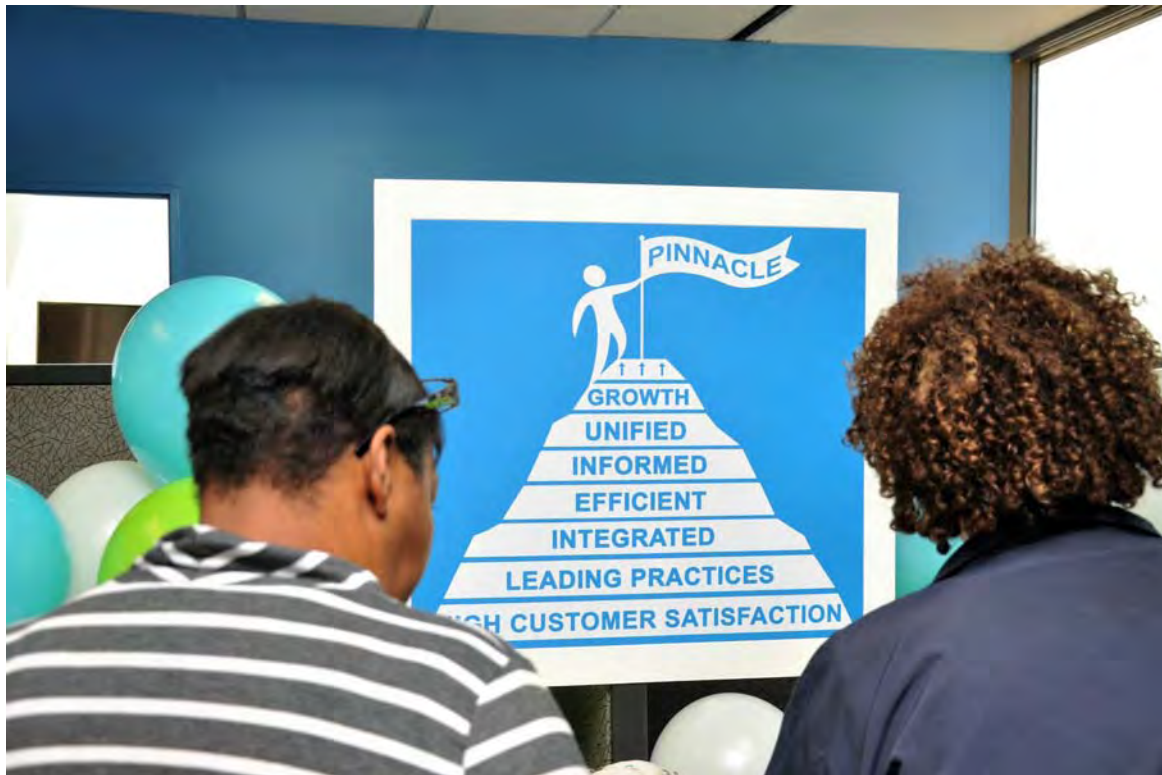
	Location	Company	5 CCF	10 CCF	15 CCF
1	Orlando, FL	Orlando Utilities Commission	\$10.83	\$15.22	\$21.41
2	Phoenix, AZ	City of Phoenix	\$6.90	\$17.26	\$36.66
3	Memphis, TN	Memphis Light, Gas & Water	\$9.28	\$18.55	\$27.83
4	<b>Little Rock, AR</b>	<b>Central Arkansas Water</b>	<b>\$12.98</b>	<b>\$21.53</b>	<b>\$30.08</b>
5	Nashville, TN	Metro Water Services	\$10.12	\$21.77	\$33.42
6	Salt Lake City, UT	Salt Lake City Public Utilities	\$16.64	\$23.39	\$30.14
7	Huntsville, AL	Huntsville Utilities	\$17.60	\$24.29	\$31.43
8	Dallas, TX	Dallas Water Utilities	\$12.77	\$24.77	\$43.27
9	Miami, FL	Miami-Dade Water & Sewer	\$8.05	\$25.29	\$44.57
10	Jacksonville, FL	JEA	\$17.98	\$25.54	\$36.98

In the fall of 2016, CAW commenced work on the 2020 Strategic Plan, CAW's third strategic planning document. Operations, goals, and objectives remain greatly influenced by the ten attributes of Effective Utility Management (EUM), and CAW's 2020 Strategic Plan adopts seven related initiatives to help utility efforts through 2020 and beyond. Further details on the goals of the 2020 Strategic Plan, and tasks completed in 2019 are presented starting on page 33.

In 2019, CAW completed the draft format of the 2020-2024 Strategic Plan. This plan has three themes: Nurture, Serve, and Advance as CAW seeks to maximize entrusted resources to improve lives today and for generations to come. CAW will NURTURE the valuables entrusted to it. CAW will SERVE its customers, stakeholders, and the region with distinct capabilities. CAW will ADVANCE achievement of its purpose and mission by refining its processes, embracing innovation, and maximizing technology.

In late 2017, CAW embarked on a multi-year project to analyze and streamline current business processes as well as improve the ways it uses technology. One major aspect was the selection of a new customer information system (CIS). The CIS is a critical asset which impacts all customer-facing activities of the Utility and assures a stable revenue stream for CAW and its billing partners. While CAW's current CIS has served the Utility

well for nearly 20 years, utility growth and process evolution have revealed its shortcomings. CAW contracted with EMA, Inc. in 2017 to conduct a comprehensive review of CAW's information technology systems, including the CIS. This assessment determined that CAW should install a more robust CIS and redesign many of its older business processes to best leverage current technology. In 2018, CAW formed the Pinnacle Project Team to implement this more robust CIS, Cayenta Utilities. Implementation has begun and will continue into 2020.



In 2019, CAW met a major objective of securing future water sources for central Arkansas with the execution of an agreement with the U.S. Army Corps of Engineers (USACE) and Southwest Power Administration for the acquisition of water rights of 100 MGD in DeGray Lake. This was the fruition of a journey that began in 1988 when the Utility secured the right of first refusal to 120 MGD in DeGray Lake.

### **CAW's Future**

Another major objective of the Utility is to ensure a sustainable water utility for the metropolitan area. CAW is a member of the Mid-Arkansas Water Alliance (MAWA), which, in collaboration with the Metroplan Council of Local Governments (Metroplan), is leading a regional initiative to develop water sources that will meet the region's needs through the 21st century. Metroplan, which serves the four-county region of Pulaski, Saline, Lonoke, and Faulkner, is an integral partner in the effort along with officials of other cities and rural areas.

In 2013, MAWA reached an agreement with USACE to withdraw 15 MGD out of Greers Ferry Lake. Currently, eight MAWA member utilities are taking water from Greers Ferry Lake to serve their respective customers as part of the Lonoke-White Water Treatment Plant project. Lonoke-White withdraws and treats approximately 3.5 MGD.

Following this successful agreement and use of the water from Greers Ferry Lake for the Lonoke-White project, CAW and 27 participating cities and water user groups, through MAWA, submitted an allocation request to USACE in early 2015 for an additional 15 MGD from Greers Ferry Lake. At the beginning of the fourth quarter of 2019, this second allocation request was pending before USACE.

The approach to identify and secure the most feasible future water sources for regional needs represents one of the best ways to meet the needs of these communities while minimizing the financial burden on individual systems, particularly smaller systems.



Beginning in early 2018, CAW collaborated with Performance Services for recommendations on energy cost savings and more efficient energy avenues. Performance Services recommended adding solar arrays onto CAW land holdings and the surface of Lake Maumelle. CAW continues to review energy cost savings options and plans to incorporate solar into its energy strategies. This project is continuing into 2020.

CAW continues to explore strategic opportunities to expand its rate base where operationally and fiscally appropriate. To that end, CAW conducted feasibility studies with Paron-Owensville Water Authority and the City of Shannon Hills Water Department in 2019. In 2019, CAW reviewed options to participate with the West Pulaski Public Water Authority to provide services to residents that currently have well water systems .

CAW will also look to leverage its core competencies in operations and billing services to generate additional, non-water related, revenue sources to provide supplemental funding for infrastructure replacements.



**Kandi Hughes  
Chair**



**Board of  
Commissioners**



**Anthony Kendall  
Vice Chair**



**Jim McKenzie  
Secretary/Treasurer**



**Jay Hartman  
Member**



**Carmen Smith  
Member**



**Jay Barth PhD  
Member**



**Vacant  
Member**



## Management Team

<b>C. Tad Bohannon, J.D., LL.M</b>	Chief Executive Officer
<b>Thad Luther, P.E., BCEE</b>	Chief Operating Officer
<b>David Johnson, J.D.</b>	General Counsel
<b>Jeff Mascagni, CPA, CGFM</b>	Chief Financial Officer
<b>Jeremy Sparks, CCMP</b>	Chief Innovation Officer
<b>Blake Weindorf, P.E., BCCE</b>	Director of Distribution
<b>Jim Ferguson, P.E.</b>	Director of Engineering
<b>Kevin Hall</b>	Director of Environmental Health and Safety
<b>Cynthia Edwards, CPA</b>	Director of Finance
<b>Glenda Bunch, SHRM-SCP, SPHR</b>	Director of Human Resources
<b>Allen Vincent</b>	Director of Information Services
<b>Douglas Shackelford</b>	Director of Public Affairs and Communications
<b>Sam Zehtaban</b>	Director of Water Production

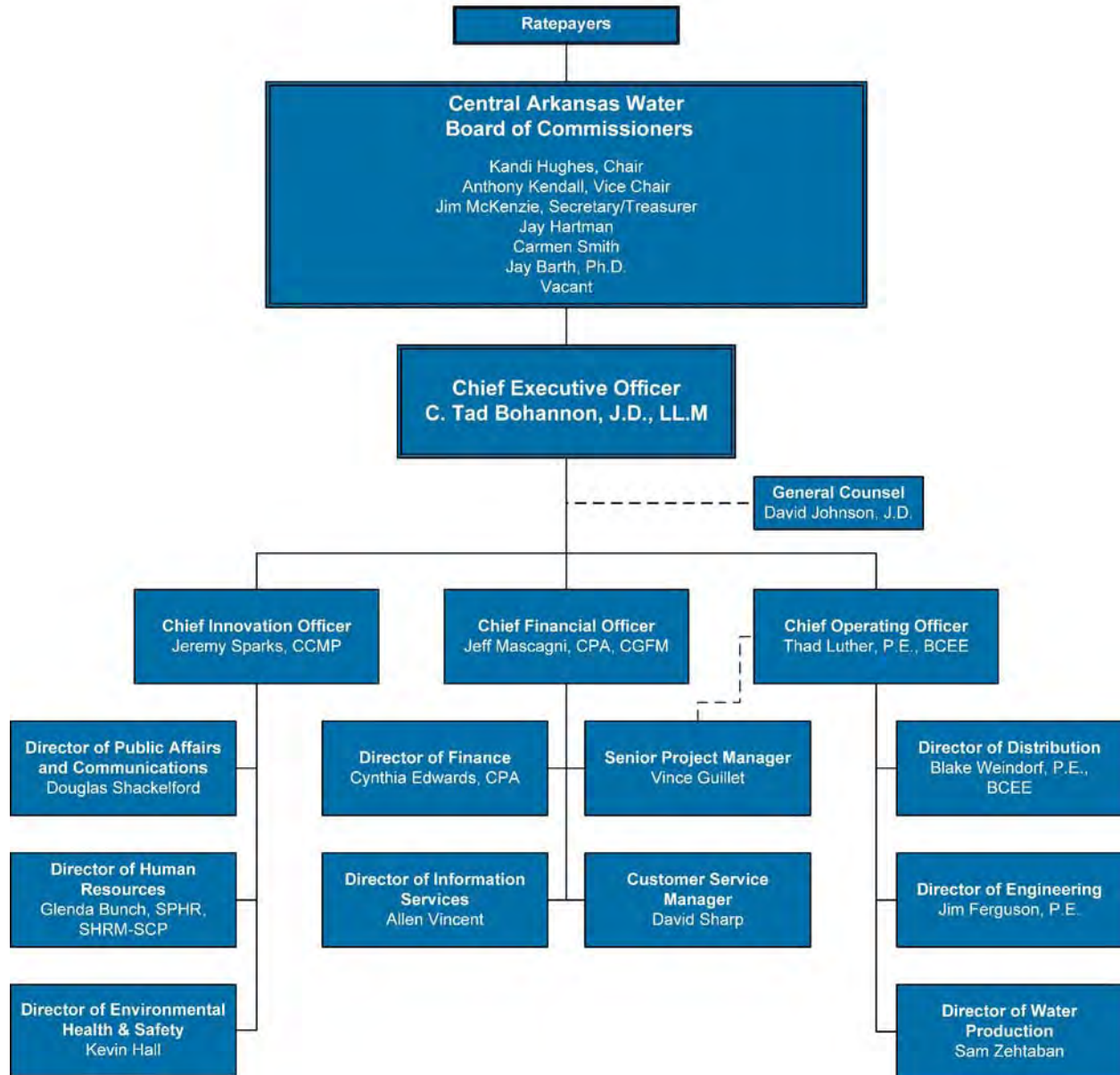
## Financial Plan Development Team

<b>Jeff Mascagni, CPA, CGFM</b>	Chief Financial Officer
<b>Cynthia Edwards, CPA</b>	Director of Finance
<b>Todd Fisher, CPA</b>	Finance Manager
<b>Lauren Schallhorn, CPA</b>	Controller
<b>Lacey Hristov, CPA</b>	General Accountant
<b>Sherry Lippiatt</b>	General Accountant
<b>Kim Doebele</b>	Accounting Clerk II

# CENTRAL ARKANSAS WATER

## Organizational Chart

Effective: January 1, 2020



December 12, 2019

Board of Commissioners  
Customers and Other Interested Stakeholders  
Central Arkansas Water  
221 East Capitol Avenue  
Little Rock, AR 72202



## 2020 Financial Plan – Budget Message

Board of Commissioners, Customers, and Interested Stakeholders:

Staff respectfully present the 2020 Financial Plan for Central Arkansas Water. This Financial Plan focuses on the Utility's mission of enhancing the quality of life in central Arkansas by delivering high-quality water and dependable service that exceed customer expectations; protecting and ensuring a long-term water supply for future generations; and serving as responsible stewards of public health, utility resources, and the environment.

To accomplish these things, CAW must look today to be prepared for tomorrow's opportunities. Maintaining aging infrastructure and rehabilitating older water treatment plants remain important capital objectives in 2020 and beyond. Securing and protecting lands in our watershed areas and creating drinking water stability in our region remain high priorities as we look at the legacy that we leave for future generations. Equipping and empowering our employees to deliver exceptional service, promoting health and safety, and volunteering to help others is the CAW way of giving back to the communities which we serve.



CAW is the largest water supplier in the state with a vision of being a leader in water stability and regionalism. CAW team members are active in local, state, regional,

national, and international organizations and making connections to learn and share best practices to ensure that CAW remains a world-class water utility. Funding sources in this Financial Plan support the operational and capital activities needed to meet its mission as well as prepare for central Arkansas' future.

This Financial Plan is designed to present the comprehensive financial framework for all Utility activities for the budget year. The Management team and staff have developed an operating and capital improvement plan that addresses the strategic initiatives put in place as part of the 2020 Strategic Plan, which is discussed starting on page 33. Associated performance measures are discussed in more detail within the department narratives (pages 161 - 226).

## Water Source and Water Quality Challenges

CAW has and will continue to encounter challenges as it works to fulfill its mission of providing high-quality water. Absent a catastrophic failure or natural disaster, CAW has adequate water sources available to meet projected customer needs. Additional water rights from Lake DeGray have been purchased that provide a redundant water source available to serve the needs of CAW's customers in the event of a catastrophic failure or natural disaster, as well as provide additional capacity to meet the water demands of the central Arkansas area well beyond the middle of the 22nd century. An ongoing challenge for CAW will be to balance the costs of acquiring additional water sources and constructing the necessary infrastructure to make it a viable redundant supply with the need to keep rates affordable.

Another challenge for CAW is the protection of its surface water sources from both natural and human-induced threats including pollution, wastewater intrusion, flooding, drought, wildfire, and sediment originating in the watershed. Preserving our water sources requires a concerted effort. An example of this are CAW's efforts to extend the riparian management areas through land acquisition, increased ecological function restoration, additional studies to determine impacts on current resources, and increased tributary and biological monitoring to better quantify these threats.

The Pulaski County Quorum Court adopted a Lake Maumelle Watershed Zoning Code in April 2013 that established several water quality protection measures including density limitations, open space requirements, streamside buffer requirements, and prohibition of activities detrimental to water quality within the Pulaski County portion of the Lake Maumelle Watershed. Full implementation of the Zoning Code occurred in April 2014. Critical water quality protection provisions of the initially adopted Code were maintained in amendments to the Code that were adopted on August 26, 2014. As these amendments and codes are implemented due to development in the watershed, vigilance is required to assess the impact on water quality and watershed operations.

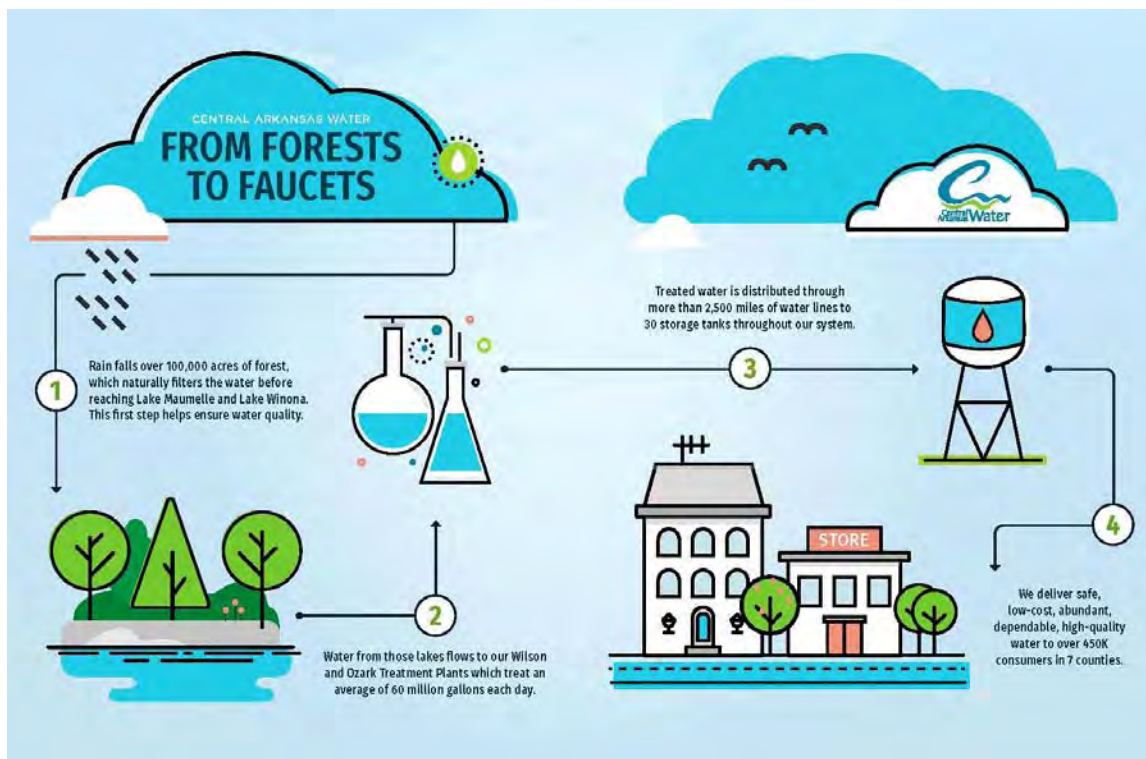
CAW staff are committed to improving water quality at the source and throughout the distribution system. These improvements can be accomplished by efficient operation of the distribution system to reduce water age, installation of water quality monitoring

equipment, dispersion of water treatment components throughout the system, and improved management of chlorine residuals.

Water Production staff, through the Partnership for Safe Water, are committed to improve the quality of water delivered to customers by optimizing water system operations. This program provides operators, managers, and administrators the tools to improve performance above and beyond even proposed regulatory levels, and thereby increases customer confidence. Significant improvements at Ozark Point Plant will update that facility to better address changes in water treatment technology, provide a more robust treatment system, and improve the ability to solve treatment challenges. This will greatly improve water quality and the reliability of water delivered to our customers.

Better protection of our water sources, improvement of the water quality as it leaves the treatment plants, and management of that quality throughout the distribution system are high priorities of the CAW team.

The best way to meet these challenges is to strive for continual improvement. Researching current best practices, enhancing processes, updating infrastructure, and attending professional development sessions are just a few ways that CAW staff stay on top of a dynamic industry. Water that tastes good, is safe for consumption, exceeds regulatory standards, and is in sufficient quantity are primary goals for all water providers. Successfully achieving those goals means CAW is contributing to the quality of life for its customers and is fulfilling its stated mission.



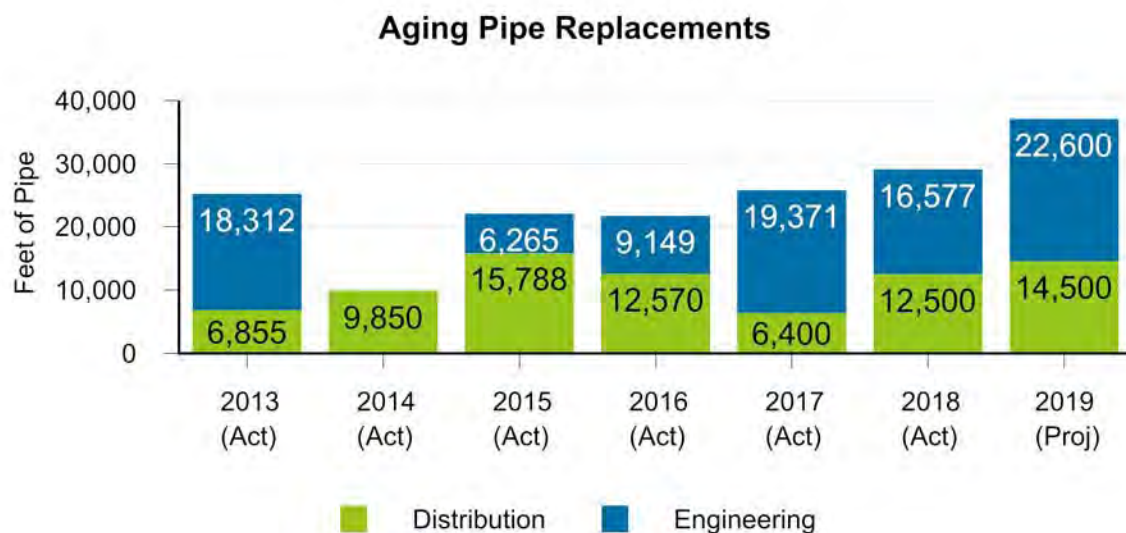
## Infrastructure Improvement and Replacement Challenges

The renewal and replacement of aging infrastructure remained the No. 1 priority identified in the American Water Works Association’s (AWWA) 2019 State of the Water Industry Report. The biggest obstacle to completing this task is justifying the necessity to ratepayers.

Like many larger U.S. water utilities, CAW has infrastructure that is over 100 years old but still provides service. Maintaining and enhancing aging infrastructure is a significant and ongoing challenge. The process to update infrastructure includes identifying needs and priorities, estimating the capital costs, implementing the financial mechanisms to pay for the projects, and then repeating the procedure at regular intervals.

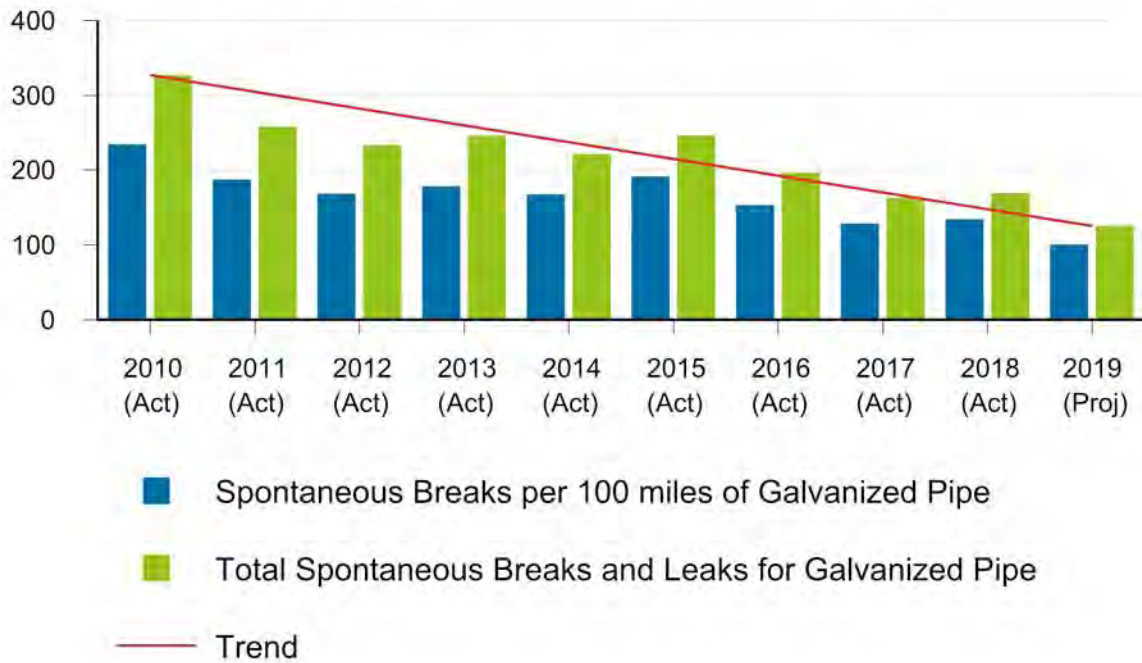
Major CAW infrastructure projects in 2020 include a two-year project to improve and rehabilitate the Ozark Point Water Treatment Plant and numerous distribution pipe relocations and replacements. Projected 2020 costs for infrastructure capital projects are over \$33 million.

Our 2019 accomplishments include the replacement of 37,100 feet of aging pipe within the system composed of galvanized, asbestos-cement, and cast iron pipe with ductile iron and PVC, which are used for improved strength and performance. Replacement of 22,600 feet of this aging pipe was contracted by the Engineering Department, while the remaining 14,500 feet were replaced by Distribution Department personnel. From 2013 to 2019, Distribution personnel have replaced over 86,000 feet of galvanized pipe while replacement of over 84,000 feet of the pipe has been contracted by the Engineering Department for a total of over 170,000 feet, or more than 32 miles, replaced. While the Distribution Department plans to replace 14,000 feet of galvanized pipe annually, pipe replacement as a whole in upcoming years can vary and is determined by funding and priority of jobs. The table below shows the feet of pipe replaced annually over the seven-year period.



The Engineering Department did not replace any galvanized pipe in 2014 due to reallocating resources for increased pipe relocations during that period. Replacing galvanized pipe has reduced the number of breaks and leaks as shown in the graph below. Replacement of these mains by both CAW personnel and contractors remains a high priority and will continue in future years.

### Breaks and Leaks on Galvanized Pipe



CAW Distribution personnel repair a break on University Avenue in Little Rock.



CAW Distribution crew repairing a main break on Cantrell Road in Little Rock.

Distribution crews are now using portable tablets and taking advantage of an upgrade in the Utility's work management software, CityWorks. CAW uses CityWorks for its infrastructure database as well as generating work orders and recording work order completion. The tablets receive and send data in 'real time' to ensure a faster update of CAW records, to provide improved customer service, and to increase personnel efficiency by eliminating the time previously spent uploading and downloading information via fixed data stations in the office. Crews are also using global positioning system (GPS) equipment to log the location of each customer's meter. This data is loaded into CityWorks and the Utility's geographic information system (GIS) to aid CAW crews in their responses to main breaks.

## **Employment Challenges**

One of the anticipated employment trends in the United States is going digital. CAW will follow this trend in the upcoming year by identifying and beginning the implementation of a Human Resources Information System (HRIS). This HRIS will enable us to automate, eliminate unnecessary costs, and be on par with Human Resource (HR) standards. The system will streamline recruiting, on-boarding, talent management, time and attendance, and payroll. There will be immediate time and cost savings as recruiting costs will be significantly lowered, and duplication of data entry will be eliminated. It will also assist in



providing our employees with best-in-class pay, benefits, and workplace culture for years to come.

The Society for Human Resource Management (SHRM) has projected the estimated national average increase for health insurance to be 6% for 2020. To combat rising insurance costs, we partnered with McGriff Insurance Services in 2019 to manage and improve employee benefits. McGriff was vital to CAW being able to provide better per employee pricing for premium costs while simultaneously improving insurance coverages. A major part of the per employee savings stemmed from CAW being able to offer a Preferred Provider Organization (PPO) plan, the insurance type with which CAW staff were familiar, and a High Deductible Health Plan (HDHP), which was a new offering to CAW employees at a much lower costs. Another first for CAW, electronic benefits management, was also offered to CAW through McGriff and another third party vendor, Consolidated Admin Services.

According to the 2019 Global Recruitment Insights and Data site, the top employment challenge, according to recruiters, is talent shortages. To combat this challenge and to improve in-house promotions, CAW-U, our internal professional development program, was initiated in 2019. Track 1 focused on water license preparation where 90% of the enrollees earned their certification within nine months. Track 2, our leadership preparation track, had over 30 applicants resulting in two classes being formed. In 2020, we will continue expanding course offerings allowing employees to select professional development topics that are relevant to career paths. CAW-U will be instrumental in our succession planning efforts.

According to the 2019 AWWA Utility Benchmarking Program, median turnover rates are 8.6% for the water utility industry. For 2019, CAW has run below the average with a 7.9% turnover rate. To combat turnover and retain HIVIP employees, CAW has invested in its employees with enhanced benefits, CAW-U, and the Find Logical Opportunities and Wins (FLOW) Lab. In 2019, CAW launched the FLOW Lab, solidifying the utility's commitment to innovation and continuous improvement. Designed to find logical opportunities and wins through the Utility, these labs are key to accelerating improvements. As our HR department works to update and automate, we will leverage the FLOW Lab as a source of creativity.

## **Financial Challenges**

Developing accurate demand forecasts is one of the most significant challenges in creating long-term financial forecasts. There are many factors that influence customer demand projections. Climate and weather conditions, economic drivers, and conservation are a few of the factors that must be considered.

Based on historical consumption analysis coupled with rate consultant recommendations received while establishing water rates for the rate resolution to be approved in December 2018, baseline consumption was adjusted down to 18 billion gallons for 2019. For future revenue estimates, retail consumption is expected to decline 2% annually, while wholesale consumption is projected to remain flat through 2024.

There are no proposed consumption related increases for 2020. A 15-cent increase to the Watershed Protection Fee has been approved by the Commission and will begin in January 2020. An additional 15-cent increase to the Watershed Protection Fee was also approved by the Commission to begin in January 2021.

## Economy and Budget Summary

Real Gross Domestic Product (GDP) is expected to grow at an annual rate of 2% during the last half of 2019, with full-year real GDP at 2.3%, down from 2.9% in 2018. Forecasters predict real GDP will decrease to 1.8% in 2020, based on signs of an economic downturn evidenced by unexpected federal interest rate decreases in 2019. The forecasters predict a relatively static labor market with unemployment remaining at the current low levels through 2020. The national unemployment rate is currently 3.7% (August 2019), down from 3.9% at this time in 2018. The unemployment rate in Pulaski County is currently at 3.5%, up slightly from 3.3% last year.

The Arkansas Realtors Association reports that home sales in Arkansas' top five markets (Benton, Pulaski, Washington, Saline, and Sebastian counties) during the first half of 2019 were up 8.96% compared to 2018. Home sales in Pulaski County were up 0.4% for the first six months of 2019.

<b>2020 Budget Changes from 2019 Projected</b>		
<b>Operating Revenues</b>	<b>\$ Change</b>	<b>% Change</b>
Increase in Retail Water Sales	975,570	1.89 %
Decrease in Wholesale Water Sales	(23,158)	(0.51)%
Increase in Penalties and Turn-on Charges	3,219	0.14 %
Increase in Ancillary Charges	1,663,931	25.12 %
Decrease in Maumelle Surcharge Revenue	(7,095)	(0.32)%
Decrease in Other Revenue	(76,266)	(12.62)%
<b>Total 2020 Operating Revenues Budget</b>	<b>70,569,331</b>	<b>3.73 %</b>
<b>Operating Expenses</b>		
Increase in Labor and Benefits	1,702,081	5.97 %
Increase in Materials, Supplies, and Maintenance	1,026,301	15.35 %
Decrease in Electric and Other Utilities	(648,749)	(13.44)%
Increase in Contract Services	115,307	3.60 %
Increase in Chemicals	98,401	5.48 %
Decrease in Transition Cost - MWM	(7,408)	(100.00)%
Increase in Depreciation	207,829	1.62 %
Increase in Other	15,018	40.89 %
<b>Total 2020 Operating Expenses Budget</b>	<b>60,424,921</b>	<b>4.33 %</b>
<b>Capital Costs</b>		
Increase in Capital Costs	<b>12,375,125</b>	<b>33.55 %</b>
<b>Debt Service</b>		
Decrease in Total Bond Debt Service	<b>(25,480)</b>	<b>(0.26)%</b>

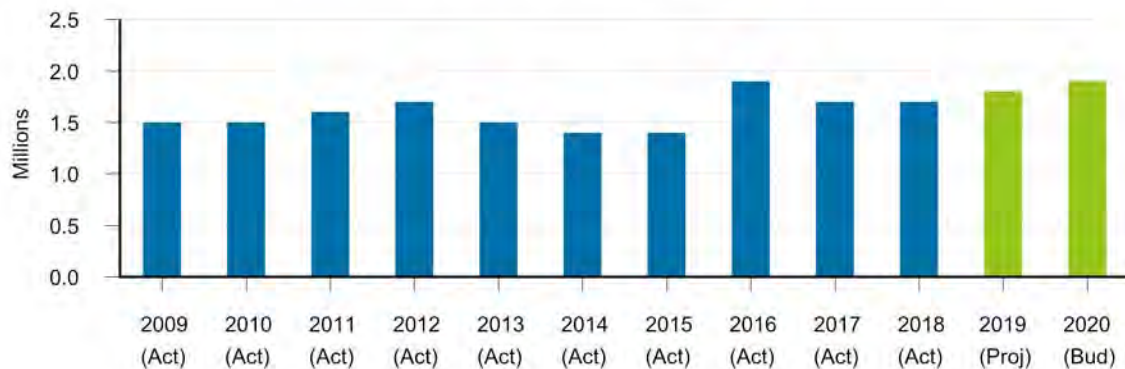
The proposed budget for 2020 includes \$60.4 million in operating expenses, \$49.3 million in capital costs, and \$9.7 million in bond debt service. The following graph shows labor and benefits for a 12-year period -- ten years of actual data, shown in blue, with the projected amount for 2019 and the budgeted amount for 2020, which are both shown in green. 2020 includes a decrease of 2% in health care costs and wage adjustments of 3% for employees. The total labor and benefits adjustment will amount to \$1,717,581, which represents a 5.97% increase over the 2019 projected amount. This increase is due to the health care and wage variances mentioned above and to budgeted amounts not spent in 2019 due to an average of 15 vacancies for the year.

### Labor and Benefits



The following graph shows chemical costs for a 12-year period -- ten years of actual data, shown in blue, with the projected amount for 2019 and the budgeted amount for 2020, which are both shown in green. The MWM merger caused the 2016 increase, while the fluctuating costs in the following years were due to weather-driven consumption changes.

### Chemical Cost



## Proposed Financial Plan Highlights

- 17.4 billion Gallons – Consumption (1.2% decrease from 2019 Projected)
- \$70,569,331 Operating Revenues (3.73% increase from 2019 Projected)
- \$60,424,921 Operating Expenses (4.33% increase from 2019 Projected)
- 343 Funded Positions (3.31% increase compared to 9/1/2019 Actual)
- No Consumption-Based Retail Rate Increase in 2020
- No Wholesale On-Peak and Off-Peak Rate Increases in 2020
- \$9,681,002 Bond Debt Service (0.26% decrease from 2019 Projected)
- \$49,257,215 Capital Costs (33.55% increase from 2019 Projected)
- \$12,660,000 Capital Costs Funded From Rates (1.32% increase from 2019 Projected)

## Acknowledgment

The 2020 Financial Plan was a collaborative effort between the Finance Department, department directors, and departmental staff over the past several months. The comprehensive nature of this document requires hours of research, review, and calculations. Many thanks to each employee that assisted with this extensive process.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'C. Tad Bohannon', is written over a light blue horizontal line.

C. Tad Bohannon

Chief Executive Officer

## **Budget Process and Calendar**

As with any business, planning is key to success. CAW has several components that are critical to the planning process and include:

### **Water Utility Master Plan**

The Water Utility Master Plan provides guidance for future growth, rehabilitation, or replacement of existing facilities, and preparation of the Capital Improvement Plan.

### **Rate Model**

The rate model provides a fair and equitable basis for setting rates by customer class. This rate model is updated with a rate study every three years. CAW's latest rate model was updated in 2018.

### **Capital Improvement Plan**

The five-year Capital Improvement Plan, included as part of the annual budget, provides the Board of Commissioners and the public with a comprehensive view of the asset investments required in the near future to ensure adequate water resources, to provide a high level of water quality, and to meet service needs of present and future customers. Although asset investments are approved through the budget process, final Board approvals are obtained as projects exceeding \$100,000 are initiated.

### **Operating Budget**

The operating budget provides a comprehensive view of revenues and expenses. A balanced budget is prepared and adopted annually. For planning purposes, CAW has developed a five-year projection of sources and uses of funds. This projection will serve as a guide for future operating needs.

Budget adjustments with no-net-change impact are allowed as long as a budget reallocation form is completed. Budget reallocation forms originating in the Distribution, Engineering, or Water Production departments must be approved by the Chief Operating Officer (COO). Forms originating in the Environmental Health and Safety, Human Resources, or Public Affairs and Communications departments must be approved by the Chief Innovation Officer (CINO). The Chief Financial Officer (CFO) then approves all changes or reallocations during the plan year.

## 2020 Budgetary Process

<u>DATE</u>	<u>ACTIVITY</u>
July 9, 2019	Initial budget meeting with overview of process and release of budget instructions and targets
August 19, 2019	Submission of budget requests to Finance Department
September 5, 2019	Departmental Review: Administration, Distribution, Engineering, and Water Production
September 11, 2019	Departmental Review: Customer Service, Finance, and Information Services
October 14, 2019	Review of proposed 2020 Financial Plan by Finance Department
October 28, 2019	Review of proposed 2020 Financial Plan by Executive Team
November 14, 2019	Presentation of proposed 2020 Financial Plan to Board of Commissioners
December 12, 2019	Adoption of 2020 Financial Plan by Board of Commissioners

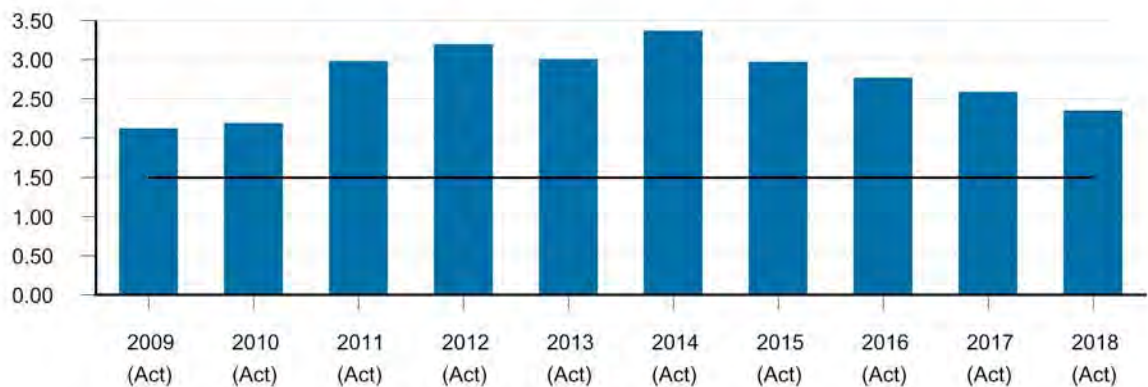
# Financial Policies and Goals

## Financial Management

The following guidelines are established to maintain a sound financial condition and to secure the most cost-effective credit rating on issues of indebtedness:

- Prudent budgeting and effective budget control
- Financial accounting and reporting in accordance with Generally Accepted Accounting Principles (GAAP) and making such reports available to bond rating agencies and the public
- Establishing and maintaining rates, fees, and charges that will provide sufficient revenues to offset projected costs
- Maintaining a five-year capital plan with annual updates (see page 107)
- Maintaining debt service coverage, determined by dividing stabilized net revenue by annual debt service for the fiscal year, at a Commission coverage target of 190% (see page 78)
- Ensuring that days cash on hand remains at a minimum level of 150 days to maintain operating reserves (see page 80)
- Ensuring that operating reserves are maintained at a minimum level of 45 days budgeted operating costs sufficient to meet all operating, capital, and debt service obligations (see page 79)
- Maintaining debt utilization below the 39% AWWA benchmark (see page 81)
- Maintaining the current ratio, determined by dividing current assets by current liabilities, above 1.50 (see below)

### Current Ratio by Year



## **Basis of Accounting and Budgeting**

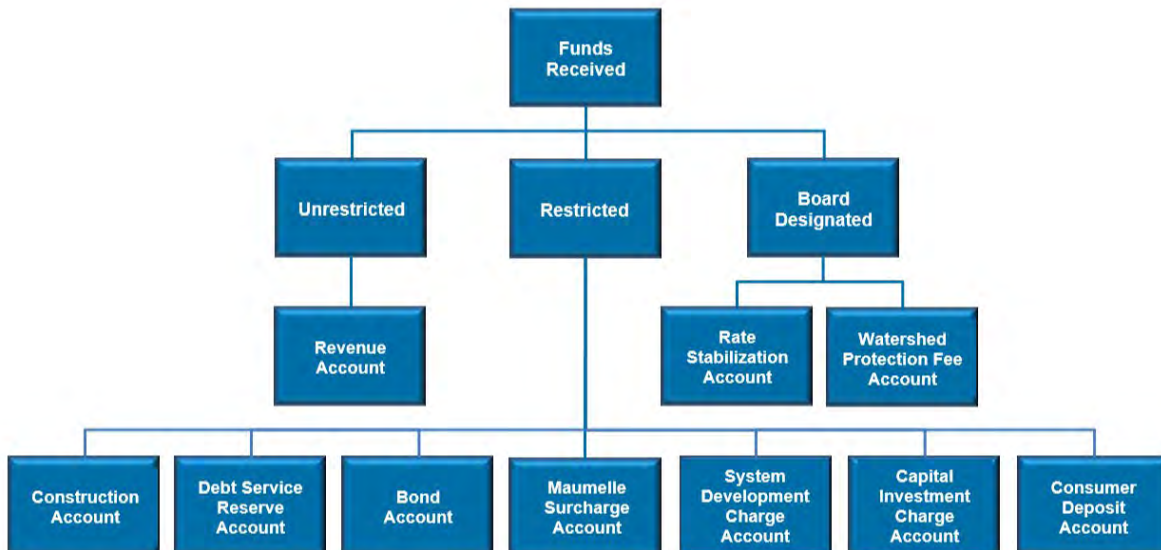
The CAW Financial Plan, proposed by the CEO and adopted by the Board of Commissioners, is a reflection of the Utility’s policies, goals, and priorities. It is a tool used to communicate to the public and staff regarding funds available and allocation decisions related to capital improvements, technology, staffing, equipment, and other aspects of operations.

The basis of budgeting corresponds with the basis of accounting used for financial reporting; both are accomplished using full accrual accounting. Revenues are recognized when earned, and expenses are recognized when a liability is incurred, regardless of the timing of the related cash flows.

## **Fund Structure**

The Utility is accounted for as a stand-alone enterprise fund, which is considered a proprietary fund type. Enterprise funds account for activities that are financed and operated in a manner similar to private business enterprises or for which periodic determination of revenues, expenses, and operating income is desirable. Such funds render services to the general public on a user-charge basis and report using the economic resources measurement focus. However, to comply with bond resolutions, the Utility has accounts that segregate monies received for specific purposes described in the bond documents.

The table below outlines the unrestricted, restricted, and board designated accounts the Utility uses.





### Unrestricted Accounts:

- **Revenue Account.** All revenues from user charges and fees are deposited into the revenue account. The disbursement priority order is operation and maintenance costs, senior debt – bond account, senior debt – debt service reserve account, and rate stabilization account.

### Board Designated Accounts:

- **Rate Stabilization Account.** Resolution 2010-03 established a rate stabilization account for the purpose of minimizing or leveling rate increases and providing additional cash for operations during revenue shortfall years. Resolution 2015-01 clarified the debt coverage ratios that would trigger transfers into and out of the rate stabilization account.
- **Watershed Protection Fee (WPF) Account.** WPFs assessed on each monthly bill in the CAW service area are deposited into this account. The funds collected from the service area customers finance the Watershed Management Program designed to protect CAW water supply lakes and surrounding watersheds.

### Restricted Accounts:

- **Construction Account.** On construction-related bond issues, a construction account is held by the trustee for each bond obligation throughout the construction period. Bond proceeds for the purpose of financing construction costs are deposited into this account. Upon completion of construction activities, CAW files a written request with the trustee, who then pays construction invoices out of this account.
- **Debt Service Reserve Account.** A debt service reserve account is held by the trustee for certain outstanding bond obligations. The debt service reserve requirement is 50% of maximum annual debt service. If on the final business day of any month, after the deposit required by the bond account, the amount in the bond account is less than the amount required, the trustee shall transfer amounts from the reserve account to the bond account to cure the deficiency. Whenever deposits in the reserve account exceed the requirement, excess funds shall be transferred by the trustee into the bond account. Whenever the amount in this account, together with the amount in the bond account, is sufficient to pay in full all outstanding bonds in accordance with the terms, the funds shall be transferred to the bond account, and no deposits shall be required to be made into this account.
- **Bond Account.** A bond account is held by the trustee for each bond obligation outstanding. The Utility's standard operating procedure is to transfer monthly (on or before the final business day of the month), to the trustee, 1/12th of funds needed for the biannual debt service payments. Arkansas Natural Resources Commission (ANRC) bonds are the exception in that a bond fund is not required. Biannual debt service payments are made directly to ANRC.

- **Maumelle Surcharge Account.** All revenues from Maumelle surcharges applied to customers of the MWM service area are deposited into the respective Maumelle Surcharge Accounts. These revenues are restricted to pay for expenses specifically identified in the CAW-MWM consolidation agreement, including needed infrastructure and required debt servicing.
- **System Development Charge (SDC) Account.** SDCs assessed as part of a new development are held in this account and used to fund or recover the cost of capital improvements or facility expansions necessitated by a new development.
- **Capital Investment Charge (CIC) Account.** CICs assessed on new meter connections are held in this account. These funds are used to recover the cost of capital improvements for facility expansions of treated water transmission, distribution facilities, and pumping and storage facilities related to site-specific facilities.
- **Consumer Deposit Account.** Customer deposits paid upon beginning water service with CAW are held in this account. Funds are used to ensure payment of remaining balances on customer accounts. Deposits are refunded out of this account upon establishment of satisfactory payment history.

### **Balanced Budget**

Budgeted expenses are balanced with current revenues, carryover balances, and rate stabilization account transfers. Budgeted expenses shall not exceed estimated financial resources in a given year. Funding is available for operating, capital, and debt service in this budget.

### **Net Position**

The Utility classifies and defines net position as:

- **Net investment in capital assets.** The net investment in capital assets component of net position consists of capital assets, net of accumulated depreciation, reduced by outstanding balances of any bonds, mortgages, notes, or other borrowings attributable to the acquisition, construction, or improvement of these assets. This component also includes deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt.
- **Restricted.** The restricted component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Restricted assets contain constraints placed on the use either by external groups, such as creditors, grantors, and contributors, or laws or regulations of other governments.

- **Unrestricted.** The unrestricted component of net position consists of the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that do not meet the definition of “net investment in capital assets” or “restricted.”

### **Revenue Forecasting**

The Board of Commissioners completes an independent review of rates every three years to ensure that sufficient funding is available to meet the Utility's operating, capital, and debt service needs. Assumptions used to develop water sales are driven by consumption estimates prepared by rate consultants. If necessary, adjustments are made annually to factor in circumstances that were unforeseen during the preparation of the rate model.

### **Debt Administration**

CAW has no legal debt limits; however, the Board of Commissioners adheres to strict guiding principles. Long-term debt is issued only to finance capital improvements. The Utility strives to attain the highest credit rating to ensure borrowing costs are minimized and access to future credit is available. Debt is scheduled to be paid back within a period that does not exceed the expected life of the asset financed by the debt. The Utility uses a competitive process in the sale of bonds unless it is specifically determined that a negotiated sale will produce more favorable results. The Utility adheres to full financial disclosure as it relates to its outstanding securities. The Utility has a bond rating from Moody's Investors Service of Aa2 on the 2010C, 2012A, 2014, 2015, 2016, 2018A, and 2018B Bond Issues. A rating of A1 was placed on the 2016 Maumelle Acquisition and Construction issue, which is supported by a pledge of long-term debt surcharges collected from customers in the MWM service area.

### **Investment Policy**

Investments are reported at fair value based on quoted market prices. Purchases and sales of investments are recorded on a trade date basis. Interest income is accrued when earned. Investment income includes all interest earned on investments, as well as realized and unrealized gains and losses.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Utility manages its exposure to declines in fair values by limiting investments to securities with a maturity of not more than five years from the date of purchase.

Credit risk is the risk that the issuer or counterparty will not fulfill its obligations. To minimize exposure to credit risk, the investment policy specifies the types of securities in which the Utility may invest. In general, the following investments are considered permissible investments:

- Direct obligations of the United States government
- Open end, government obligation money market mutual funds

- Obligations that are fully guaranteed, secured, or insured by United States government agencies, instrumentalities, and government-sponsored entities
- Repurchase agreements that are fully collateralized by direct obligations of the United States government and general obligations of any State of the United States or political subdivision thereof
- General obligations of the States of the United States and of the political subdivisions, municipalities, commonwealths, territories, or insular possessions thereof
- Pre-funded municipal bonds, the principal and interest of which are fully secured by the principal and interest of a direct obligation of the United States government
- Revenue bond issues of any State of the United States or any municipality or any political subdivision thereof

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Utility will not be able to recover the value of deposits, investments, or collateral securities that are in the possession of an outside party. State of Arkansas statutes require the Utility to maintain cash balances on deposit with financial institutions located within the State. State law also requires that account balances in excess of amounts insured by the Federal Deposit Insurance Corporation be collateralized by the financial institution.

With the exception of securities that are direct obligations of the United States government, deposit accounts that are fully insured by the Federal Deposit Insurance Corporation or fully collateralized, and money market funds with an underlying portfolio that is limited principally to United States government obligations, the investment policy states that no more than 20% of the total balance may be invested in any single investment or in securities of a single obligor.

The Utility's first priority is the security of funds, followed by providing sufficient liquidity to meet cash requirements and maximizing yields.

### **Capital Policy**

Initial acquisition costs of an asset are capitalized if the asset has a service life of more than one year and a cost of \$5,000 or more. Costs not meeting these criteria are expensed. Depreciation is computed using the straight-line method over the estimated useful life of the asset, based on the respective asset class.

### **Rate Design and Water Service Pricing Policies**

On November 13, 2014, the CAW Board adopted resolution 2014-09. The resolution established the following policies:

1. The water rates and ancillary fee structure for providing surplus water to wholesale customers shall be established utilizing a "cost of service" methodology, following

industry-accepted cost-of-service rate setting standards for water utilities, with a utility-basis approach, rather than a cash-needs approach, providing the customers within Little Rock and North Little Rock (the Cities) a reasonable rate of return, recognizing that CAW is a tax-exempt governmental entity, for the capital contributed by the Cities to CAW's water system and the investment risks assumed by the customers within the Cities to provide sufficient infrastructure to assure the wholesale customers of a reasonably reliable water supply.

2. The water rates and ancillary fee structure for providing water to retail customers who are not residents of the Cities shall be established in accordance with applicable Arkansas law, including specifically Ark. Code Ann. § 25-20-308(b) which states, "sales of water and extensions of services . . . may be made at such rates and on such other terms as the board of commissioners may deem just and reasonable, and the rates need not be the same as the rates charged customers within the jurisdictions of the public body's participating public agencies."
3. The water rates and ancillary fee structure for providing water to retail customers who are residents of the Cities shall be established utilizing a "cost of service" methodology, following industry accepted cost of service rate setting standards for water utilities, with a cash-needs approach.
4. In accordance with Ark. Code. Ann. § 14-234-214, the water rates for inside city and outside city customers must be adequate to:
  - (a) pay the principal of and interest on all revenue bonds and revenue promissory notes as they severally mature,
  - (b) make such payments into a revenue bond sinking fund as may be required by resolution or trust indenture,
  - (c) provide an adequate depreciation fund to cover the cost of anticipated capital replacement needs,
  - (d) pay the estimated cost of operating and maintaining the system, and
  - (e) provide sufficient debt service coverage to meet all outstanding bond and trust indenture requirements.
5. When determining any water rates, whether inside city, outside city, or wholesale, the Board and CAW staff may consider whether it is appropriate to utilize a "base-extra capacity method" within the methodologies set forth above to accurately assign the cost associated with peak demand usage to those customers causing the utility to significantly exceed average load conditions.
6. When establishing customer classes within any water rate, whether inside city, outside city or wholesale, the Board and CAW staff shall assign costs to classes of customers in a cost-responsive and industry accepted manner so that the applicable rates closely meet the cost of providing service to such customer classes using the

methodologies set forth above, based on the relevant factors for providing water service to each customer class, including but not limited to the following:

- (a) characteristics
  - (b) location
  - (c) demand patterns
  - (d) utility staffing requirements
  - (e) anticipated repair and replacement costs
  - (g) impact on water quality and supply preservation, and
  - (h) development, operation, maintenance, and replacement of any specific facilities necessary to serve any particular class or classes of customers.
7. Notwithstanding the parameters set forth in paragraph 6 above, the Board and CAW staff shall also consider methods to reduce rates and provide assistance to aid low-income residential inside city customers, recognizing that the lost income realized by any reduction in rates for low-income residential inside city customers must be paid by other customers.
8. The capital improvement costs to expand the water facilities to serve future customers should be borne by those future customers, to the extent practical.
9. The design of rates to recover the cost of service should support the sustainability of water resources.


# Strategic Plan

CAW's 2020 Strategic Plan is the foundation of CAW's efforts to make sure it continues to build a better future for central Arkansas. Consistent with prior years, CAW's strategic plan is based on the EUM framework developed by the Environmental Protection Agency, and six national water and wastewater associations, to address the challenges faced by water sector utilities across the country. Identified challenges are rising material costs, aging infrastructure, regulatory changes, adequacy of water supply, security and environmental hazards, federal funding cuts, rate structure stress, and workforce complexities.

By the end of 2019, CAW will have completed 90% of tasks listed in the 2020 Strategic Plan. Major accomplishments included securing Lake DeGray as an additional water source, introducing CAW-U, completing the total compensation review, starting the Ozark Treatment Plant rehabilitation, replacing 37,100 feet of pipe and being recognized by the AWWA for providing the best tasting water in the Southwest region.

With the following strategic initiatives and related goals, CAW continues to address these critical issues as well as focus on transparency, infrastructure replacement, affordability, watershed protection, and employee development through 2020 and beyond to build a better future for the utility, community, and customers.


**Strategic Initiative 1:** Enhance Customer Confidence, Experience, and Understanding  
(EUM: Customer Satisfaction; Stakeholder Understanding and Support)

GOAL	
A. Increase CAW's understanding of customer expectations and perceptions	
B. Improve the customer service experience	
C. <b>Effectively communicate CAW's mission, challenges, and opportunities to customers</b>	

CEO Tad Bohannon speaking at the 85th Annual Arkansas Municipal League Convention.


**Blue font** indicates goal to which picture / graphic applies.

**Strategic Initiative 2: Enhance Stakeholder Engagement**  
 (EUM: Stakeholder Understanding and Support)

GOAL	
A. Capitalize on the high level of CAW Board engagement	
B. <b>Increase community/ stakeholder understanding and engagement</b>	
C. Be recognized as a responsible, innovative leader in the industry by the general public, city partners, the state legislature, and local and national organizations	

Educating central Arkansas teachers about CAW.

**Strategic Initiative 3: Optimize Infrastructure Performance and Increase Infrastructure Reliability**  
 (EUM: Operational Optimization; Infrastructure Stability)

GOAL	
A. <b>Maximize performance of existing infrastructure</b>	
B. <b>Improve long-term reliability of infrastructure</b>	

Rehabilitation of Ozark Point Plant



**Strategic Initiative 4:** Enhance Operating Excellence through Innovation, Leveraging of Technology, and Business Process Improvements  
(EUM: Operational Optimization; Operational Resiliency)

**GOAL**

A. Evaluate industry best practices to identify cost effective innovations and solutions to provide operating excellence

B. **Enhance Information Technology capabilities**



Using GIS to provide quality service to CAW customers.

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**Strategic Initiative 5:** Develop, Maintain, and Recruit a Diverse, Sustainable, High-Performing Workforce  
(EUM: Employee and Leadership Development)

<b>GOAL</b>
A. Recruit, develop, appropriately reward, and retain a high-performing, innovative, value-driven, informed, passionate, and diverse work force committed to achieving CAW's mission and strategic goals
B. Measure and improve employee satisfaction levels
C. <b>Expand employee skills and technical training to develop and prepare employees for future positions and increase span of employee certification and licensing</b>
D. Assure safety and security of employees



CAW-U: Equipping and empowering CAW staff


**Strategic Initiative 6:** Assure Long-Term Financial Stability and Integrity of Utility  
(EUM: Financial Viability)

<b>GOAL</b>
A. <b>Be fiscally strong and financially stable</b>
B. Achieve efficiencies and increase revenues through increased collaboration with strategic partners, and develop additional sources of revenue (or reductions in costs) as a means to maintain affordable rates
C. Enhance high stakeholder confidence in financial procedures, rates, and budgets



For every dollar that CAW receives in 2020, \$0.45 of it is used for everyday business operations, such as labor and benefits, while \$0.44 of it is spent on capital projects, and the remaining \$0.11 is used for debt service.

**Strategic Initiative 7: Ensure Delivery of High-Quality Water for Future Generations**  
 (EUM: Water Resource Adequacy; Product Quality)

<b>GOAL</b>	
A. Identify and secure additional sources of water supply	
B. <b>Provide the highest water quality that exceeds all regulatory standards and preserves consumer confidence</b>	
C. Effectively and efficiently manage source water quality	

CAW was voted Best Drinking Water in Arkansas and in the Southwest region of the AWWA (which encompasses Arkansas, Louisiana, and Oklahoma) in 2019. With the regional win, CAW will move forward to the National AWWA Best Drinking Water competition in 2020.



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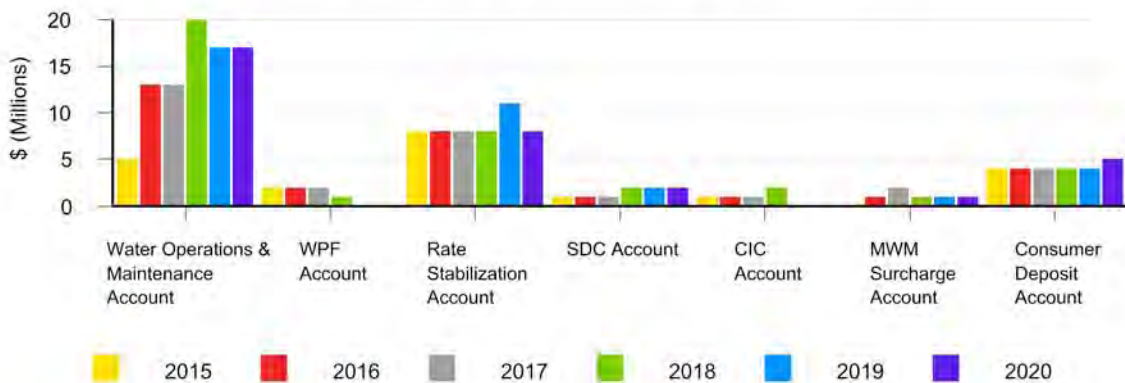
# SOURCES & USES OF FUNDS

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## SOURCES AND USES OF FUNDS – OVERVIEW

CAW anticipates a total of \$51,919,871 in both restricted and unrestricted funds to carry forward at December 31, 2019. Unrestricted water operations and maintenance funds amount to \$11,720,220 in addition to \$17,054 WPF funds, and \$10,599,590 rate stabilization funds. The restricted SDC account totals \$2,020,491; the CIC account totals \$345,706; the MWM surcharge account amounts to \$586,466; and the restricted consumer deposits account equals \$4,499,622.

### Restricted and Unrestricted Funds



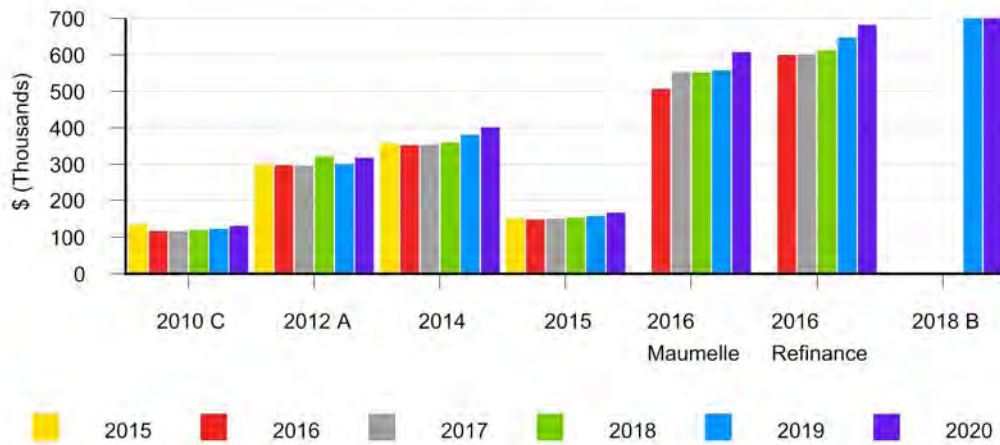
The bond trust indentures require CAW to maintain certain reserves during the life of the bond issues. The Debt Service Reserve Account covers the principal and interest for the final year of each bond issue. The Debt Service Reserve Account totals \$309,291 for the 2010C Bond Issue; \$602,159 for the 2012A Bond Issue; \$542,500 for the 2014 Bond Issue; \$301,275 for the 2015 Bond Issue; \$600,713 for the 2016 Maumelle Bond Issue; \$893,000 for the 2016 Refinance Bond Issue, and \$717,894 for the 2018B Bond Issue.

### Debt Service Reserve Account



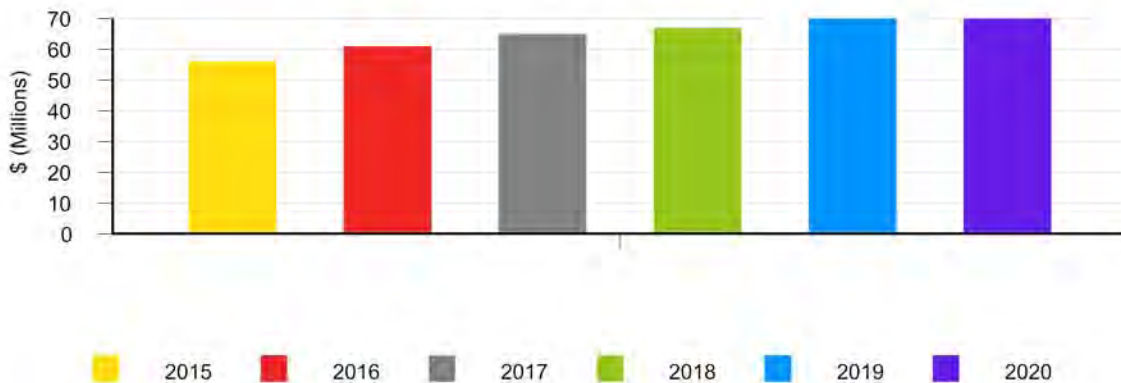
The Bond Account accumulates sufficient funds annually to pay the principal and interest on each bond issue. As of December 31, 2019, the account amounts to \$123,468 for the 2010C Bond Issue; \$299,625 for the 2012A Bond Issue; \$380,073 for the 2014 Bond Issue; \$158,313 for the 2015 Bond Issue; \$556,579 for the 2016 Maumelle Bond Issue; \$646,695 for the 2016 Refinance Bond Issue; and \$1,581,690 for the 2018B Bond Issue. The working capital reserve represents 45 days of operating expenses, and for 2019, that amount is \$5,629,399.

### Bond Account

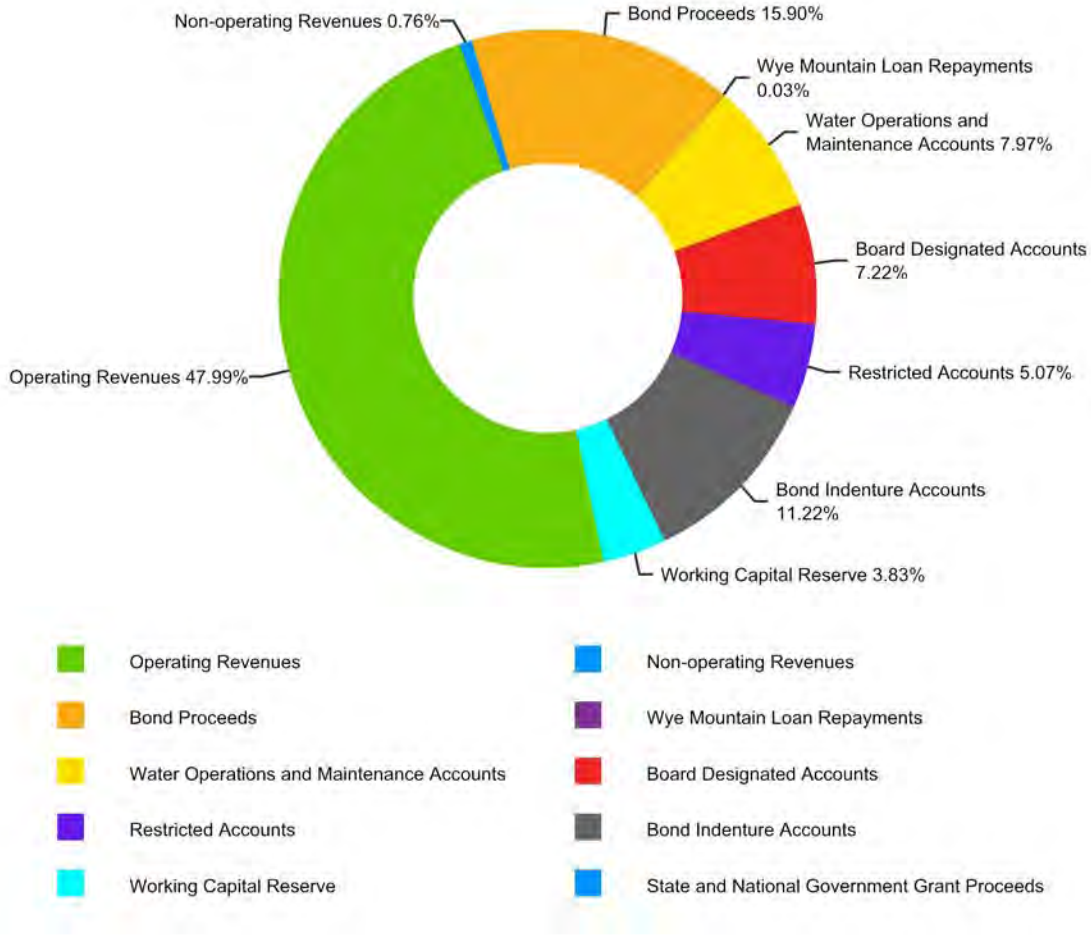


The carry-forward balances, along with anticipated operating revenues of \$70,569,331, non-operating revenues of \$1,121,504, ANRC bond proceeds of \$23,378,335, and Wye Mountain loan repayments of \$51,000 will fund normal operations and the capital improvement plan.

### Operating Revenues



# SOURCES OF FUNDS

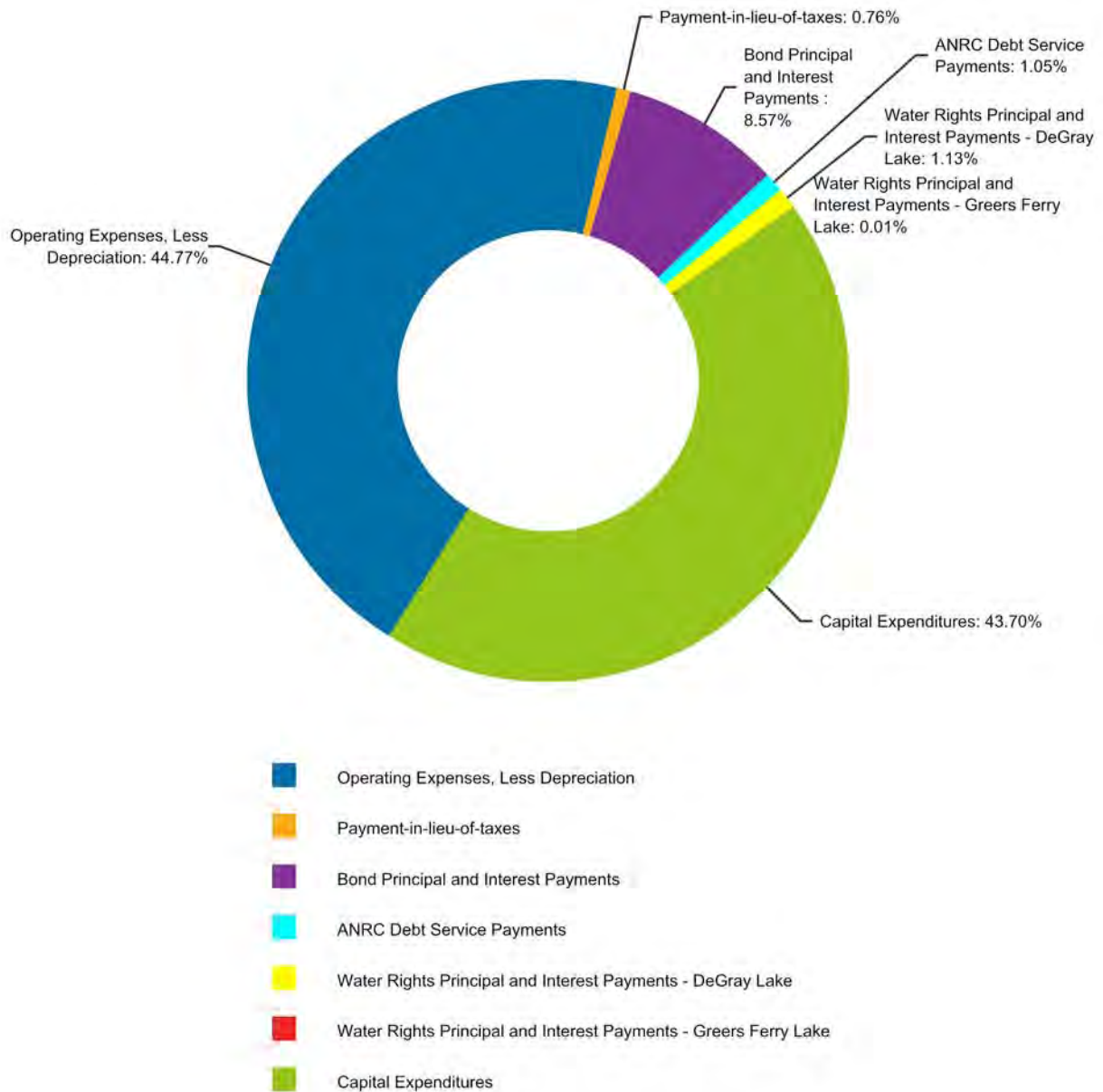


Utility staff anticipate 47.99% of total sources of funds from operating revenues. The remaining sources of funds are made up of various sources. The sources of funds are depicted above.

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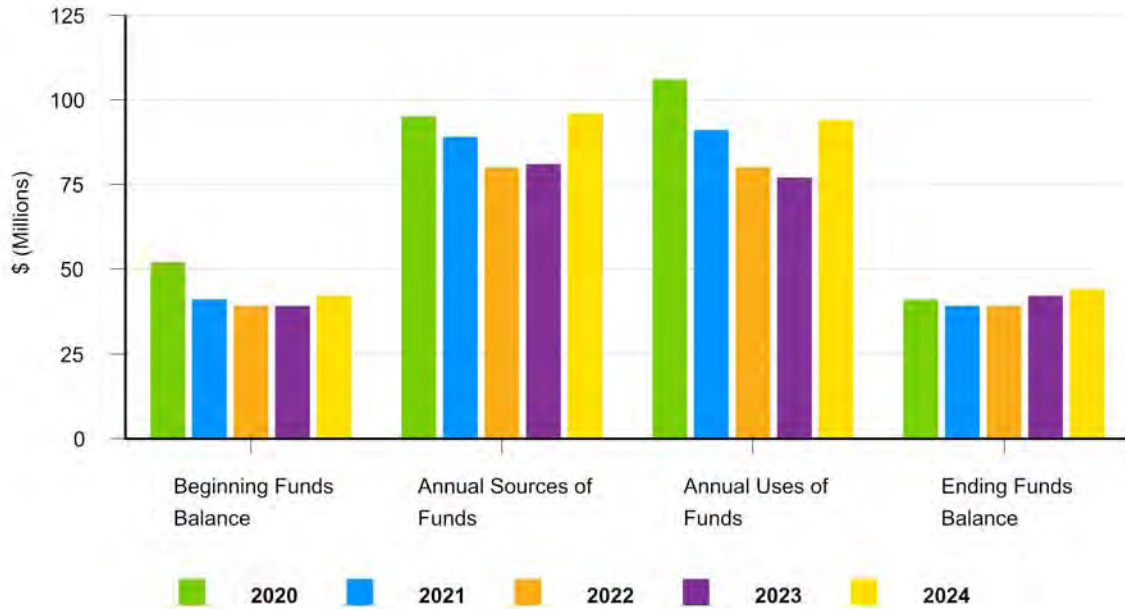
## USES OF FUNDS



Operating expenses and Payments-in-lieu-of-taxes account for 45.53% of total uses of funds, while capital costs account for 43.70% and long-term debt principal and interest payments add up to 10.77%. The uses of funds are depicted above.

Assuming all normal operations occur as anticipated and all projects are completed in the capital improvement plan according to schedule, \$41,245,699 will remain in both restricted and unrestricted funds at December 31, 2020.

## SOURCES AND USES OF FUNDS (FIVE-YEAR FORECAST)



CAW forecasts sources and uses of funds for five years as a tool to aid in developing a plan for the operational and capital resources of the Utility. Accurate forecasts of revenues, expenses, debt service, and capital outlay are needed in order to set future rates. Proper planning and prioritization of spending are necessary to efficiently and effectively allocate limited financial resources. A rate study was performed during 2018 to develop a more current rate model. The rate structure for 2019-2022 were approved by the CAW Board of Commissioners in the 4th quarter of 2018. There are no consumption-based retail rate increases or wholesale rate increases proposed for 2020. There will be a 15-cent increase to the WPF beginning in January 2020.

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**STATEMENT OF SOURCES AND USES OF FUNDS**

**Sources of Funds:**

**Carry Forward, as of December 31, 2019**

Unrestricted Accounts		
Revenue Account	\$ 11,720,220	
Board Designated Accounts		
Watershed Protection Fee Account	17,054	
Rate Stabilization Account	10,599,590	
Restricted Accounts		
System Development Charge Account	2,020,491	
Capital Investment Charge Account	345,706	
Maumelle Surcharge Account	586,466	
Consumer Deposit Account	4,499,622	
Bond Indenture Accounts		
Debt Service Reserve Account – 2010C	309,291	
Debt Service Reserve Account – 2012A	602,159	
Debt Service Reserve Account – 2014	542,500	
Debt Service Reserve Account – 2015	301,275	
Debt Service Reserve Account – 2016 Maumelle	600,713	
Debt Service Reserve Account – 2016 Refinance	893,000	
Debt Service Reserve Account – 2018B	717,894	
Construction Account – 2018B	8,788,048	
Bond Account – 2010C	123,468	
Bond Account – 2012A	299,625	
Bond Account – 2014	380,073	
Bond Account – 2015	158,313	
Bond Account – 2016 Maumelle	556,579	
Bond Account – 2016 Refinance	646,695	
Bond Account – 2018B	1,581,690	
Working Capital Reserve	5,629,399	
<b>Total Carry Forward, as of December 31, 2019</b>		<b>51,919,871</b>

**2020 Sources of Funds**

Operating Revenues	70,569,331	
Non-operating Revenues	1,121,504	
Bond Proceeds	23,378,335	
Wye Mountain Loan Repayments	51,000	
<b>Total 2020 Sources of Funds</b>		<b>95,120,170</b>
<b>Total Sources of Funds</b>		<b>147,040,041</b>

**2020 Uses of Funds:**

Operating and Non-operating Expenses	
Operating Expenses, Less Depreciation	47,367,082
Payment-in-lieu-of-taxes	802,256
Bond Principal and Interest Payments	9,070,232
ANRC Debt Service Payments	1,110,770
Water Rights Initial Payment - DeGray Lake	1,196,720
Water Rights Principal and Interest Payments	15,067
Capital Costs	46,232,215
	<hr/>
<b>Total Uses of Funds</b>	<b>105,794,342</b>

**Funds Available at December 31, 2020**

Unrestricted Accounts	
Revenue Account	\$ 10,884,613
Board Designated Accounts	
Watershed Protection Fee Account	36,439
Rate Stabilization Account	8,077,486
Restricted Accounts	
System Development Charge Account	2,392,963
Capital Investment Charge Account	49,770
Maumelle Surcharge Account	1,262,454
Consumer Deposit Account	4,617,591
Bond Indenture Accounts	
Debt Service Reserve Account – 2010C	309,291
Debt Service Reserve Account – 2012A	602,159
Debt Service Reserve Account – 2014	542,500
Debt Service Reserve Account – 2015	301,275
Debt Service Reserve Account – 2016 Maumelle	600,713
Debt Service Reserve Account – 2016 Refinance	893,000
Debt Service Reserve Account – 2018B	717,894
Construction Account – 2018B	90,441
Bond Account – 2010C	131,468
Bond Account – 2012A	317,125
Bond Account – 2014	400,073
Bond Account – 2015	168,313
Bond Account – 2016 Maumelle	606,579
Bond Account – 2016 Refinance	681,695
Bond Account – 2018B	1,623,171
Working Capital Reserve	5,938,686
	<hr/>
<b>Carry Forward, as of December 31, 2020</b>	<b>\$ 41,245,699</b>

## STATEMENT OF SOURCES AND USES OF FUNDS (FIVE-YEAR FORECAST)

	<b>2020 Budget</b>	<b>2021 Budget</b>	<b>2022 Budget</b>	<b>2023 Budget</b>	<b>2024 Budget</b>
Beginning Funds Balance	\$ 51,919,871	\$ 41,245,699	\$ 38,971,788	\$ 38,643,125	\$ 42,473,396
Operating Revenues	70,569,331	73,128,328	75,428,415	78,110,102	80,096,674
Non-operating Revenues	1,121,504	857,609	849,207	859,790	934,433
Bond / Loan Proceeds	23,378,335	14,757,274	3,740,000	1,500,000	15,000,000
Wye Mountain Loan Repayments	51,000	51,000	51,000	51,000	51,000
Annual Sources of Funds	<u>95,120,170</u>	<u>88,794,211</u>	<u>80,068,622</u>	<u>80,520,892</u>	<u>96,082,107</u>
Operating Expenses	47,367,082	50,013,394	50,454,891	51,231,341	53,077,021
Payment-in-lieu-of-taxes	802,256	818,301	834,667	851,360	868,388
Bond Principal and Interest	8,570,232	9,126,989	9,142,706	7,892,777	8,448,535
ANRC Debt Service	1,110,770	1,270,377	1,429,984	2,611,076	3,792,168
Additional Principal Payments	500,000	500,000	500,000	500,000	500,000
Water Rights - DeGray Lake Payment	1,196,720	1,196,720	1,196,720	—	—
Water Rights - Greers Ferry Lake Payment	15,067	15,067	15,067	15,067	15,067
Capital Costs	46,232,215	28,127,274	16,823,250	13,589,000	27,739,250
Annual Uses of Funds	<u>105,794,342</u>	<u>91,068,122</u>	<u>80,397,285</u>	<u>76,690,621</u>	<u>94,440,429</u>
Increase (Decrease) in Funds Balance	(10,674,172)	(2,273,911)	(328,663)	3,830,271	1,641,678
Ending Funds Balance	<u>41,245,699</u>	<u>38,971,788</u>	<u>38,643,125</u>	<u>42,473,396</u>	<u>44,115,074</u>
Breakdown of Funds Balance					
Unrestricted	10,884,613	10,180,032	10,794,831	12,418,842	11,974,429
Board Designated					
Watershed Protection	36,439	665,499	1,288,277	2,189,278	2,978,684
Rate Stabilization	8,077,486	7,439,035	6,587,816	6,719,572	6,853,964
Restricted					
System Development Charges	2,392,963	2,760,322	3,135,029	3,517,229	3,867,574
Capital Investment Charges	49,770	195,765	344,680	496,574	651,505
MWM Surcharges	1,262,454	649,441	20,817	146,796	277,919
Customer Deposits	4,617,591	4,709,943	4,804,142	4,900,224	4,998,229
Bond Reserves	7,985,697	6,228,117	5,467,450	5,663,726	5,861,966
Working Capital	5,938,686	6,143,634	6,200,083	6,421,155	6,650,804
Ending Funds Balance	<u>\$ 41,245,699</u>	<u>\$ 38,971,788</u>	<u>\$ 38,643,125</u>	<u>\$ 42,473,396</u>	<u>\$ 44,115,074</u>

Note: Operating Revenues reflect rate increases included in the 2018 Rate Model; these increases have not yet been approved by the CAW Board of Commissioners.

An aerial photograph of a wastewater treatment plant. The plant features several large rectangular aeration basins with floating bridges, a long building with a flat roof, and a large white cylindrical storage tank in the foreground. In the background, a wide river flows through a cityscape under a clear blue sky.

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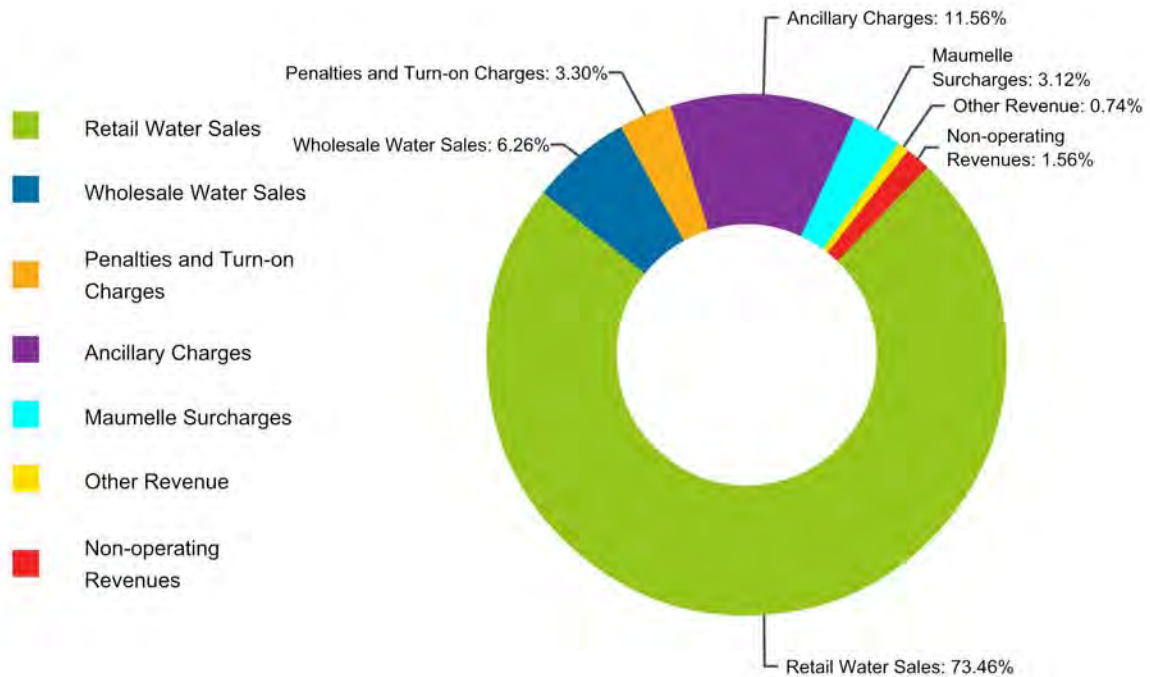
# REVENUES, EXPENSES & NET POSITION

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# REVENUES, EXPENSES, AND NET POSITION – OVERVIEW

## REVENUES – OVERVIEW

In 2020, CAW is planning to receive 79.72% of its fiscal year revenue from metered sales (retail and wholesale water sales). The remaining revenues of 20.28% are penalties and turn-on charges, ancillary charges, Maumelle surcharges, other revenue, and non-operating revenues as depicted below:



### Retail Water Sales

Retail water sales include five types of metered service: residential, commercial, large volume, sprinkler, and raw water. Residential includes all customers receiving water service at a single building or building unit that is owned, leased, or rented by one party, separately metered, and occupied as a residence. Commercial includes all customers receiving water service at (i) a building containing two or more apartments or family units that are rented or leased to tenants as residences and are not separately metered; (ii) a building occupied by a retail or service business; (iii) a building owned or occupied by a public utility, a department of a municipality, or a state or Federal governmental agency; or (iv) a non-residential customer that does not fit the definition of a large volume customer. Large volume includes any non-residential and non-sprinkler customer (i) who uses at least 1,500,000 cubic feet (CF) of water per meter during the 12-month period from September 1st to August 31st or (ii) who agrees to take or pay for a minimum of 125,000 CF of water per meter per month on an annual basis. Customers who qualify for large volume water

service described in (i) above shall be assigned to the large volume class for the calendar year beginning the following January. Sprinkler includes all customers receiving separately metered water service used exclusively for irrigation sprinkler systems or other outdoor purposes. Raw water includes customers receiving untreated water. Untreated water is used for irrigation.

Retail water sales also include private fire services made up of private fire hydrants, indoor sprinkler systems, and standpipes.

Due to differing rates, retail water sales are also separated into inside-city and outside-city. Inside-city includes all customers that reside within the city limits of Little Rock or North Little Rock. Outside-city includes all customers that reside outside the city limits of Little Rock or North Little Rock.

### **Penalties and Turn-on Charges**

Water bills, with the exception of private fire services, are due and payable on or before the 20th day following the billing date stated on the water bill. Payments for private fire services are due in semi-annual installments in advance on the 1st day of January and July each year. Water bills not paid on or before the due date are considered delinquent, and a penalty of 10% of the total current bill is assessed against the account. Based on a review of costs associated with customer service activities, increases were implemented in April 2017 to various penalties and turn-on charges to more accurately reflect the costs associated with performing these services. A turn-on charge of \$20 is assessed on the first monthly bill to obtain service where facilities are already in place. A turn-on charge of \$40 is assessed to any account that is turned off for non-payment and then reconnected.

### **Wholesale Water Sales**

CAW provides wholesale water service to water districts outside the city limits of Little Rock and North Little Rock. The districts own and operate their own water systems, perform their own meter reading and customer billing, and purchase water on a wholesale basis for distribution to their respective retail customers. CAW bills each water district based on metered consumption at a rate that reflects the cost of providing the service. Wholesale customers account for approximately 12.0% of total metered consumption and 7.9% of total consumption based revenues in the 2020 budget.

### **Ancillary Charges**

Ancillary charges include SDCs, CICs, WPFs, connection fees, billing fees, and other miscellaneous charges (insufficient fund checks, illegal connections, stolen meters, etc.).

SDCs are based upon meter size and apply to all new meter connections, with the exception of residential sprinkler meters. The charges are to fund or recover the cost of capital improvements or facility expansions necessitated by and attributable to new development. The charge begins at \$150 for a 5/8" meter.



CICs may be geographically area-based and/or water main-based and are applicable to site-specific new meter connections. The charges are to fund or recover the cost of capital improvements or facility expansions for treated water transmission and distribution facilities, pumping, and storage facilities related to site-specific facilities.

Connection fees for a meter installation are based upon the width of the street or state highway, location of the meter installation on the site, permitting costs, and materials.

WPFs are based upon meter size and apply to all meters. The fee is restricted to finance the Watershed Management Program, which includes land purchases, water quality monitoring, and other measures to protect CAW drinking water supply lakes from potential sources of pollution. In 2019, the monthly fee is 60 cents for households with a 5/8" meter.

Billing fees are assessed to CAW's 15 billing partners for all billing and customer service functions provided. Billing partners include water, waste water, and refuse districts in Central Arkansas.

### **Maumelle Surcharge Revenue**

Maumelle Surcharge Revenue consists of revenue generated by the intermediate-term and long-term transition surcharges charged to customers of the former MWM service area as part of the consolidation agreement. These surcharges were established to fund needed improvements to the MWM distribution system and to fund expenses directly related to combining the two Utilities. These surcharges will begin to be eliminated as the debts associated with the surcharges are repaid.

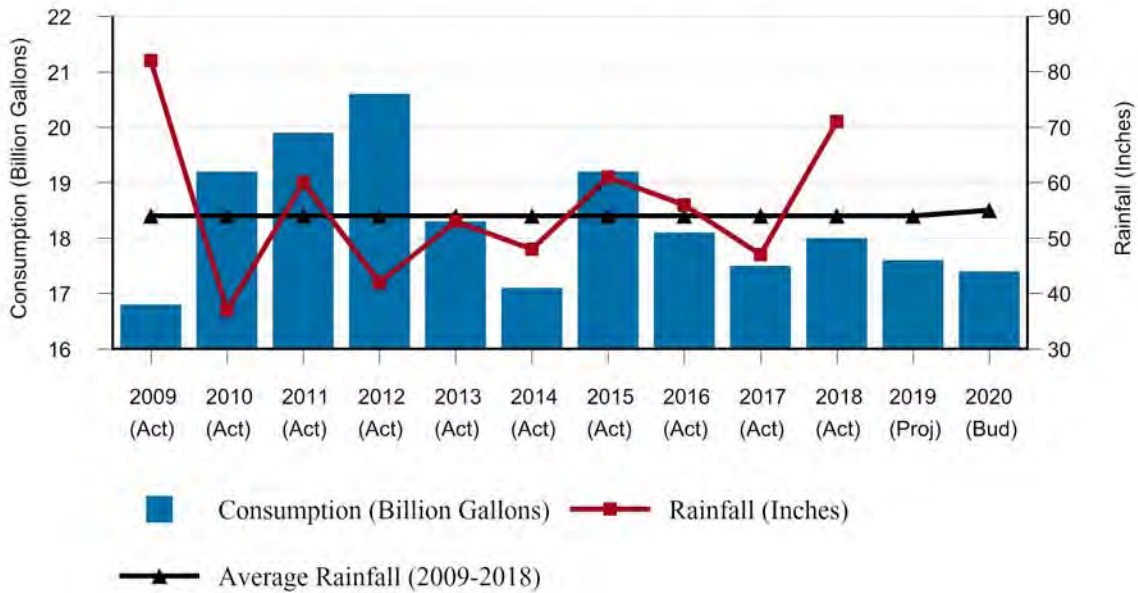
### **Other Revenue**

Other Revenue consists of income generated from recycling, engineering fees, Grande Maumelle Sailing Club rent, Fassler Hall rent, WestRock Landing rent, telecommunication tower space rent, and other miscellaneous items.

### **Water Demand**

Weather extremes are the most significant factor impacting customer demand for water. Wet or dry precipitation extremes during the summer months and hot or cold temperature extremes during the winter months can have a significant impact on water consumption and operating revenues. These impacts can be magnified depending on the time of year or the specific portion of the Utility's service area that experiences these conditions. In the graph on the following page, the water consumption is shown for a 12-year period -- ten years of actual data, with the projected amount for 2019 and the budgeted amount for 2020. Record rainfall in 2009 resulted in operating revenues \$6.2 million less than budget for the year. Additionally, rainfall combined with unseasonably cool temperatures resulted in operating revenues \$4.3 million less than budget in 2014. On the other end of the spectrum, 2012 had the driest April to July periods on record. This lack of rainfall coupled with multiple days over 100 degrees resulted in operating revenues \$5.6 million more than budget.

## Consumption vs. Rainfall

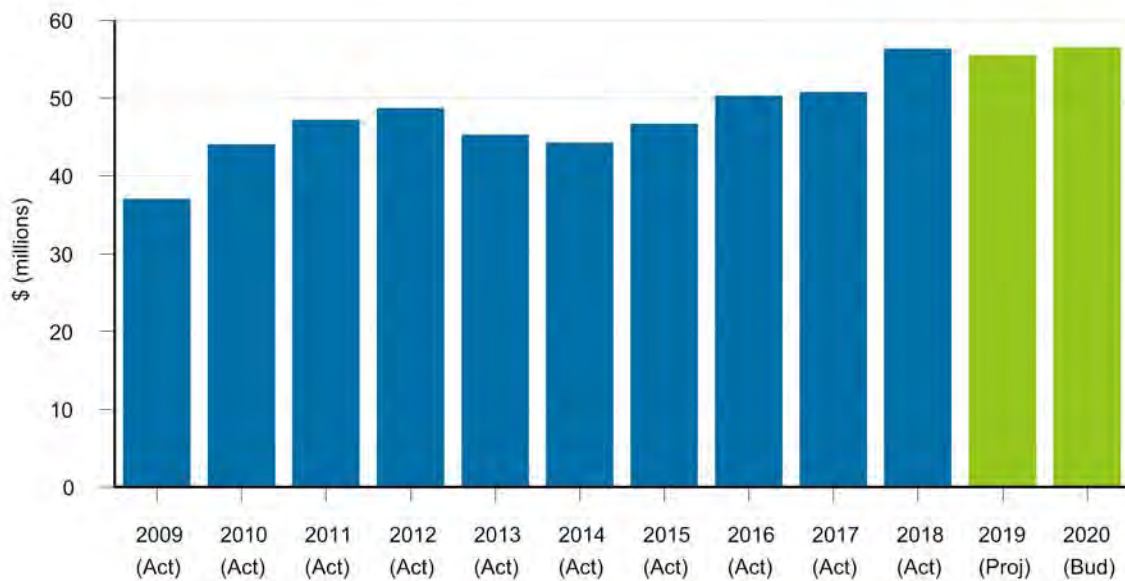


Developing accurate demand forecasts is one of the biggest challenges in creating long-term financial forecasts. There are many factors that influence customer demand projections. Climate and weather conditions, economic drivers, and conservation are a few of the factors that must be considered. Different factors affect consumption trends of each customer class, and, therefore, consumption data is analyzed and forecasted by class.

In order to forecast residential class usage, the total residential class usage was split into two categories: indoor and outdoor usage. Indoor usage was estimated by calculating the average of the three lowest usage months for the years analyzed. The remaining annual usage was categorized as outdoor usage. As it is impossible to predict the weather, a seven year historical average was used to forecast the outdoor usage component. The most recent calendar year actual usage was used to forecast the indoor usage component. A seven year historical average was used to forecast sprinkler class usage. A blend of the two most recent calendar years actual usage was used to forecast commercial and large volume classes.

The retail consumption baseline was reset for 2019 and is projected to decrease 2% annually through 2024. Wholesale consumption had no adjustment for 2020 and is projected to remain flat through 2024.

## Metered Water Sales by Year



The above graph represents metered water sales for a 12-year period -- ten years of actual data, shown in blue, with the projected amount for 2019 and the budgeted amount for 2020, which are both shown in green. Even though the 2020 budget anticipates a decrease in consumption, metered water sales are expected to increase based on an expected increase in number of accounts with a base charge.

### **Water Rates and Fees**

The CAW Board of Commissioners approved a rate schedule for 2019-2022 on December 20, 2018 with resolution 2018-13. While the rate schedule has no consumption-based retail or wholesale rate increases, it does include an increase to WPF of 15 cents effective on January 1, 2020. Approved rates and fees for 2020 are presented on the following pages.

2020 rates are as follows:

Minimum Monthly Charge (includes the first 200 CF of water usage)

METER SIZE (diameter)	RATES	
	EFFECTIVE JANUARY 1, 2018	
	INSIDE	OUTSIDE
5/8"	\$ 7.85	\$ 10.28
3/4"	10.14	13.28
1"	14.41	18.87
1 1/2"	24.37	31.90
2"	39.52	51.73
3"	73.07	95.64
4"	118.85	155.58
6"	235.08	307.72
8"	397.64	520.51
10"	572.49	749.38
12"	1,042.65	1,364.83

Additional Monthly Volumetric Charge (\$ per 100 CF 3 - 33)

CUSTOMER CLASS	RATES	
	EFFECTIVE JANUARY 1, 2018	
	INSIDE	OUTSIDE
RESIDENTIAL	\$ 1.71	\$ 2.73
COMMERCIAL	1.60	2.56
LARGE VOLUME	1.30	2.09
IRRIGATION	1.71	2.73

Additional Monthly Volumetric Charge (\$ per 100 CF over 33)

CUSTOMER CLASS	RATES	
	EFFECTIVE JANUARY 1, 2018	
	INSIDE	OUTSIDE
RESIDENTIAL	\$ 2.22	\$ 3.57
COMMERCIAL	1.60	2.56
LARGE VOLUME	1.30	2.09
IRRIGATION	2.22	3.57

Monthly Watershed Protection Fee

METER SIZE (diameter)	EFFECTIVE JANUARY 1, 2020	EFFECTIVE JANUARY 1, 2021
5/8"	\$0.75	\$0.90
3/4"	0.75	0.90
1"	1.13	1.35
1 1/2"	1.88	2.25
2"	3.75	4.50
3"	6.00	7.20
4"	11.25	13.50
6"	18.75	22.50
8"	37.50	45.00
10"	60.00	72.00

Monthly Customer Billing Fee

	EFFECTIVE JUNE 1, 2019
Billing Fee	\$1.92
Paperless Billing Discount	(0.50)

Private Fire Service Charges

	RATES	
	EFFECTIVE JANUARY 1, 2018	
	INSIDE	OUTSIDE
FIRE HYDRANTS	\$ 79.51	\$ 115.02
FIRE CONNECTION - MIN CHARGE	92.20	133.38
AUTOMATIC SPRINKLER SYSTEM - MIN CHARGE (1,000 HEADS)	92.20	133.38
ADDL HEADS, EACH	0.09	0.15
STANDPIPE 1 1/4" (OR SMALLER) DIAMETER, EACH	18.03	26.10
1 1/2" DIAMETER, EACH	28.07	40.59
2" DIAMETER, EACH	46.12	66.69
2 1/2" DIAMETER, EACH	92.20	133.38

Wholesale Additional Monthly Volumetric Charge

Resolution 2015-20 also established a wholesale rate schedule for 2017-2019. The approved 2020 rates remain the same at \$1.65 for On Peak consumption and \$1.52 for Off Peak consumption. The wholesale rates are presented in the tables below.

Wholesale Minimum Monthly Charge

METER SIZE (diameter)	RATES
	EFFECTIVE JANUARY 1, 2018
	OUTSIDE
5/8"	\$10.28
3/4"	13.28
1"	18.87
1 1/2"	31.90
2"	51.73
3"	95.64
4"	155.58
6"	307.72
8"	520.51
10"	749.38
12"	1,364.83

Volumetric Charge

TIME WATER IS TAKEN	RATES
	EFFECTIVE JANUARY 1, 2019
	\$ PER 100 CF
ON PEAK Customers taking any water from: 4:01 a.m. to 8:59 a.m. and/or 5:01 p.m. to 9:59 p.m.	\$1.65
OFF PEAK Customers taking all water from: 10 p.m. to 4 a.m. and/or 9 a.m. to 5 p.m.	1.52

On December 20, 2018, the CAW Board of Commissioners approved a new wholesale contract structure with resolution 2018-14. The new contract structure was designed in a way to reward Wholesale Customers that rely on CAW for the vast majority of their water purchases and to reduce problematic usage peaking that has occurred from time to time. These contract revisions will ensure a more stable and predictable arrangement for the sale of wholesale water for both CAW and Wholesale Customers in the years to come.

In early 2019, six of CAW's nine wholesale customers executed amended wholesale agreements conforming with the new contract structure. The new contracts are divided into three rate classifications depending on the agreed to ratio of minimum purchase to maximum purchase volumes and whether or not the daily contract maximum is exceeded. The rate classifications are presented below.

**Rate Classification A**

Provided that the Maximum Purchase does not exceed three times the Minimum Purchase, the Rates charged shall be determined as follows:

<p>Total volume of water purchased from CAW in prior calendar year by Wholesale Customer</p> <p><b>DIVIDED BY</b></p> <p>Total volume of water sold to all customers of Wholesale Customer in prior calendar year</p>	<p>Rate as a percentage (%) of CAW's then current applicable Rates for "Inside City" Commercial customers</p>	
	<p>Monthly Minimum Charge based on meter size</p>	<p>Monthly Usage Charge based on volume</p>
Equal to or greater than 85%	100%	77.5%
Equal to or more than 50%, but less than 85%	100%	90%
More than 25%, but less than 50%	100%	98%
Equal to or less than 25%	130%	102.5%

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**Rate Classification B**

In the event the Maximum Purchase exceeds three times the Minimum Purchase, the Rates charged to the Wholesale Customer shall be determined as follows:

Total volume of water purchased from CAW in prior calendar year by Wholesale Customer  <b>DIVIDED BY</b>  Total volume of water sold to all customers of Wholesale Customer in prior calendar year	Rate as a percentage (%) of CAW's then current applicable Rates for "Inside City" Commercial customers	
	Monthly Minimum Charge based on meter size	Monthly Usage Charge based on volume
Equal to or greater than 85%	100%	90%
Equal to or more than 50%, but less than 85%	100%	98%
More than 25%, but less than 50%	100%	102.5%
Equal to or less than 25%	130%	110%

**Rate Classification C**

In the event that the Wholesale Customer takes more than the Maximum Purchase on any given day, the volumetric rate for each hundred cubic feet taken in excess of the Maximum Purchase for that day shall be:

Total volume of water purchased from CAW in prior calendar year by Wholesale Customer  <b>DIVIDED BY</b>  Total volume of water sold to all customers of Wholesale Customer in prior calendar year	Rate as a percentage (%) of CAW's then current applicable Rates for "Inside City" Commercial customers	
	Monthly Usage Charge Based on Volume	
	Rate A	Rate B
Equal to or greater than 85%	85%	100%
Equal to or more than 50%, but less than 85%	98%	105%
More than 25%, but less than 50%	103%	110%
Equal to or less than 25%	110%	115%

Under the new contract structure, Watershed Protection Fees are based on meter size counts provided by the Wholesale Customer on December 1 of each year.



Raw Water Additional Monthly Volumetric Charge

	RATES
	EFFECTIVE JANUARY 1, 2019
	\$ PER 100 CF
Raw Water Customer	\$0.66

System Development Charge

METER SIZE (diameter)	
5/8"	\$150.00
3/4"	150.00
1"	225.00
1 1/2"	375.00
2"	750.00
3"	1,200.00
4"	2,250.00
6"	3,850.00
8"	7,500.00
10"	12,000.00

Capital Investment Charge

METER SIZE (diameter)	AREA \$50*	AREA \$100*	AREA \$200*	AREA \$400*	METER OFF MAIN	CONN** SIZE	CONN** OFF MAIN
5/8"	\$ 50	\$ 100	\$ 200	\$ 400	\$ 2,000	2"	\$ 875
3/4"	50	100	200	400	2,400	3"	1,300
1"	75	150	300	600	2,800	4"	1,600
1 1/2"	125	250	500	1,000	4,200	6"	2,400
2"	250	500	1,000	2,000	4,800	8"	3,200
3"	400	800	1,600	3,200	7,200	10"	4,000
4"	750	1,500	3,000	6,000	8,000	12"	4,800
6"	1,250	2,500	5,000	10,000	12,000	16"	6,400
8"	2,500	5,000	10,000	20,000	-	20"	8,000
10"	4,000	8,000	16,000	32,000	-	24"	9,600

\*charges that are associated with specific geographical sections of system based on initial construction costs.

\*\*CONN – connection – refers to end of main or tap for water main extension or fire service.

Connection Fee

METER SIZE (diameter)	2-LANE ROAD 20 – 28'	3-LANE ROAD 29 – 36'	4-LANE ROAD 37 – 48'	STATE HIGHWAY
5/8"	\$ 450	\$ 510	\$ 570	\$ 850
3/4"	560	680	800	1,150
1"	900	1,130	1,250	1,950
1 1/2"	1,340	1,500	1,640	2,640
2"	1,640	1,800	1,940	3,280
3"	5,000	-	-	-
4"	5,500	-	-	-
6"	7,500	-	-	-
8"	10,000	-	-	-

Maumelle Transition Surcharges

The CAW-MWM Consolidation Agreement provides for the collection of debt surcharges on each meter within the MWM service area. These surcharges are pledged to repayment of all debt and expenses required to carry out the merger of the two utilities. Each debt surcharge will continue until the debt associated with the respective surcharges is repaid. The Transition (short-term) Surcharge was fully paid as of December 31, 2017, and the surcharge was discontinued for all bills after that date.

METER SIZE (diameter)	INTERMEDIATE	LONG TERM
5/8"	\$ 4.92	\$ 15.67
3/4"	4.92	15.67
1"	25.09	79.92
1 1/2"	37.39	119.09
2"	50.18	159.83
3"	62.48	199.01
4"	75.28	239.75
6"	149.05	474.71
8"	251.89	802.25

Non-operating Revenues

Investment income is earned on funds that are being held in financial institutions. These earnings are subject to the availability of funds to invest and the rates available from the

market. Investment market conditions for the past five to seven years have been poor; however, recent actions by the Federal Reserve have resulted in increasing investment yields. A renewed contract with the Utility's banking provider has also resulted in higher rates paid on operating funds held in interest bearing checking accounts. Interest rate estimates on cash and investment accounts are estimated at 1.5 - 2.0%.

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# EXPENSES - OVERVIEW

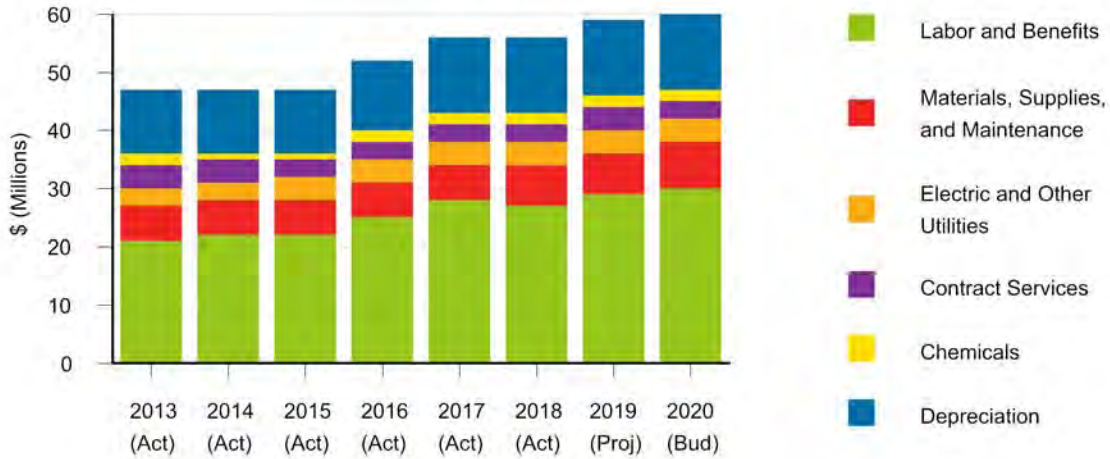
## Operating Expenses

Depreciation is a major component of operating expenses and amounts to \$13.1 million or 21.61% of total operating expenses for 2020. Projections indicate that total depreciation in 2019 will exceed budgeted amounts by 0.62%. During the past several years, CAW has funded and completed a significant number of construction projects with the proceeds from bond issues and rates. As projects are completed from all of the funding sources, the costs are capitalized and depreciated.

Operating expenses include 343 budgeted positions for 2020, which is the same as the 2019 positions. As of September 1, 2019, 332 positions were staffed, including 16 part-time positions. This reflects an increase of 11 staffed positions when compared to 315 staffed positions as of September 1, 2018. This increase of staffed positions is driven by a collaborative effort by Human Resources and department personnel to ensure that CAW hires and retains qualified and HIVIP employees in a timely manner. Traditionally, the Utility's turnover rate is low (7.87% for 2019), and staffing levels remain consistent from year to year. Where warranted, positions have been phased out or combined with other positions as employees retire. Other positions have been retained as part-time instead of full-time as circumstances indicate. Operating expenses for each department include an increase of 3% for exempt and non-exempt employees. Total wage and benefit costs associated with this increase amount to \$1,717,581. Premiums for the traditional PPO plan are increasing 5%, which is in line with SHRM's projection of 6%. However, as part of the changing total compensation plan, a HDHP plan is also offered beginning in 2020 to assist CAW in defraying rising insurance costs. Department directors proposed a 5.43% overall increase in operating expenses (excluding depreciation, MWM transition cost, wages, and benefits) from the 2019 projected amounts. The Arkansas Public Employees Retirement System (APERS) mandatory employer contribution rate will remain the same at 15.32% for the fiscal year beginning July 1, 2020.

The following graph presents total actual Operating Expenses by Natural Classification for the years 2013 through 2018. Projected numbers are shown for 2019 while budgeted numbers are shown for 2020. Labor and benefits account for the majority of operating expenses with 50% for the 2020 budgeted amount. The addition of critical positions, in addition to extra staffing needed due to the MWM merger and the CIS replacement projects, has contributed to increased labor and benefits costs since 2013.

## Operating Expenses by Natural Classification



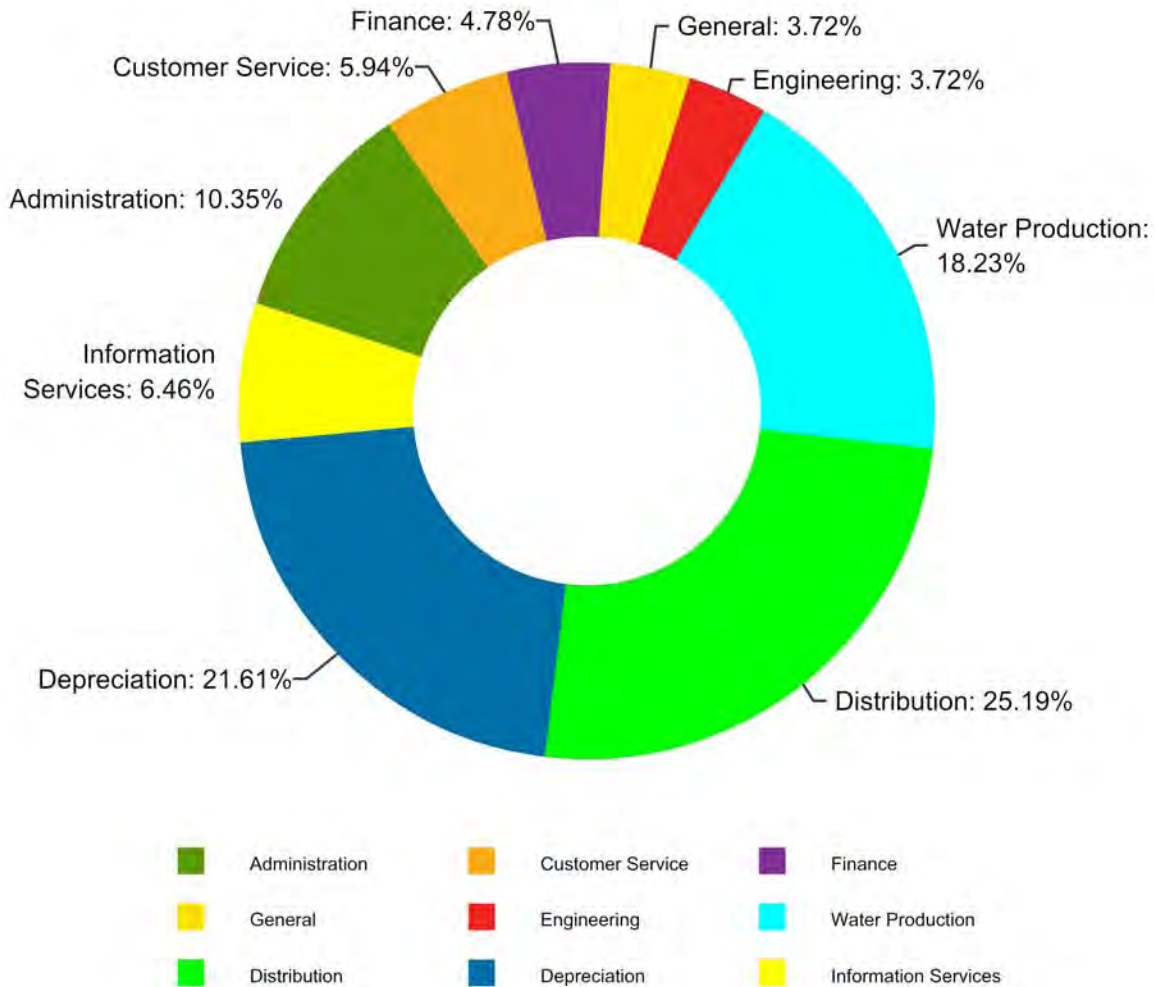
The following graph presents budgeted Operating Expenses by Natural Classification for 2019 Projected and 2020 Budget (blue bars) with specific Natural Classification areas driving changes in expenses between the two periods. Green bars indicate decreases in expenses while red bars indicate increases in expenses.

## Change by Natural Classification - 2019 Projected to 2020 Budget



# OPERATING EXPENSES

## By DEPARTMENT



The above graph shows operating expenses for all seven departments, depreciation, and general expenses.

The Administration Department is projecting a \$790,700 or 14.48% budget increase from the 2019 projection. There are several drivers for this increase; \$340,500 of which are increased special project costs in the various sections. A vulnerability study required by America's Water Infrastructure Act of 2018, an enhanced social media presence, additional watershed projects, and a triennial employment engagement survey are some of the projects planned for 2020. Labor and benefits for a new position, Facilities Manager, and the new COO, who will train with the current COO until his retirement in the first quarter of 2020, along with the company-wide wage adjustment of 3% for the Administration Department staff account for the \$221,700 increase in labor and benefits for the department.

Additional outside services costs of \$79,400, \$40,500, \$32,600, and \$39,500 for legal, security, advertising, and watershed protection, respectively, also contribute to the increase. Administration includes Commissioners' expenses, Executive Staff, Environmental Health and Safety (EHS), HR, Legal, Public Affairs and Communications, Special Projects, and Watershed Protection.

HR includes funds for employee assistance/wellness programs and employee training programs, such as diversity and supervisory training. Also included are amounts for recruitment and succession planning/leadership development programs. EHS includes safety training and facilities security. Public Affairs and Communications includes the annual costs for all public communications, community outreach, and education efforts, as well as the water quality report. To ensure high-quality raw water for the Utility, Watershed Protection is responsible for implementation of the Lake Maumelle Watershed Management Plan (WMP) and overall large-scale watershed protection programs for both Lake Maumelle and Lake Winona which includes water-quality monitoring and assessment; monitoring of watershed land use activities that may impact water quality in the lakes; building program support for watershed protection with local governments, private industry, and the public; and providing the CAW Board with continual recommendations for water quality protection.

The Information Services (IS) Department budget for 2020 reflects an increase of \$562,000 or 16.80% from 2019 projected amounts. The total increase is due to increased software maintenance costs, vacant positions in 2019, and one additional position in 2020. The total number of departmental employees increases to 19, with three vacancies as of 9/1/2019. The IS Department oversees information services, computer operations, and telecommunications.

The Customer Service Department reflects an increase in the 2020 budget of \$175,900 or 5.15% compared to the 2019 projection. The primary cause for the increase is the company-wide wage adjustment, offset by the decrease in temporary labor. The total number of employees in the Customer Service Department remains at 53 for 2020. The Customer Service Department provides customers with information, resolves problems, and reads water meters.

The Finance Department is projecting a \$140,100 increase or 5.09% from the 2019 projected amounts. This increase is primarily due to an increase of \$121,000 in labor and benefits related to an unfilled Accounting Clerk position and the Director of Finance position being budgeted for an entire year instead of for one month of 2019. The total number of employees budgeted for the Finance Department remains the same as 2019 with 22, with two vacant positions at budget time. The Finance Department is responsible for accounting, finance, budgeting, purchasing, and billing.

The General category budget reflects a \$165,800 or 6.88% decrease from 2019 projected amounts. Workers compensation insurance cost decreases account for this variance. The General category of the budget includes other post-employment benefits costs, workers

compensation, and future water resources, uncollectible accounts, utilities, and building maintenance items for the James T. Harvey (JTH) Administration building.

The Engineering Department is projecting a \$242,300 or 12.08% increase from the previous year's projections. This increase is primarily due to vacancies through 2019 as well as \$31,000 less capitalized labor in 2020 than projected for 2019. The retirement of the Manager of Planning, Regionalism, and Future Water Source results in a decrease of \$90,000, which offsets these increases. In 2020, the amount budgeted for capitalized labor is \$485,000, which will be reflected as capital charges rather than operating expense. Engineering is responsible for planning, design, and construction inspection of improvements within the CAW system.

Water Production's operating budget is decreasing by \$139,500 or 1.25% compared to the 2019 projections. The number of employee positions decreases by one to 46 budgeted employees. Projected lower electric costs, due to the utilization of solar power, is responsible for the decrease in Water Production's expenses. Variable costs such as chemical treatment, wastewater disposal, and power are driven by increases or decreases in water consumption.

Distribution, the largest department, is showing a budget increase of \$695,700 or 4.79% from 2019 projected amounts. The number of budgeted employees increases by one to 146 for 2020. As of September 1, 2019, the department maintained a total of 144 employees and one vacancy, which is projected to be filled before the end of 2019. Increases for the 2020 budget year primarily consist of the position vacancies early in 2019 as well as company-wide wage adjustment and increased benefit costs for 2020. Distribution forecasts that approximately \$1.61 million in payroll costs will be capitalized in 2020. This department provides field customer service activities and maintains water mains, booster pumping stations, storage tanks, the vehicle and equipment fleet, treatment plants, all warehouses, and other buildings.

Depreciation reflects an increase of \$207,800 or 1.62%. Depreciation expense is directly affected as capital projects are completed and capital assets are acquired. Asset types determine the service life used for depreciation and range from five years for electronics to 75 years for distribution mains. The Utility capitalizes individual property acquisitions in excess of \$5,000.

### **Other Expenses**

Payment-in-lieu-of-taxes (PILOT) is paid to the cities of Little Rock and North Little Rock and is equal to the ad valorem taxes that would have been payable to each city based on the Utility's real property and improvements located within the city limits, had such real property and improvements been subject to ad valorem taxation.

Due to the implementation of Governmental Accounting Standards Board (GASB) Statement 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, capitalized interest is no longer allowed as of January 1, 2020. Therefore, interest is no longer calculated as a cost of the associated asset. The 2020 Financial Plan reflects



this change in methodology, and therefore, all interest expense is included in the Non-Operating Revenue (Expense) of the Statement of Revenues, Expenses, and Changes in Net Position.

### **NET POSITION – OVERVIEW**

Net Position is the residual of all other elements presented in a statement of financial position. The increase or decrease in Net Position from one period to the next equals the net of all activity reported for that period. The total balance of Net Position at any point in time equals the cumulative total of all activity from inception.

Net Position is classified as Net Investment in Capital Assets, Restricted, or Unrestricted.

Overall, the 2020 budget will result in a Net Position increase of approximately \$10,243,000, or approximately \$7,743,000 before contributions.

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**STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION  
(BY NATURAL CLASSIFICATION – PERCENTAGE CHANGES)**

	2018	2019	2019	2020	CHANGE FROM	CHANGE FROM
	ACTUAL	PROJECTED	BUDGET	BUDGET	2019	2019
					PROJECTED	BUDGET
<b>Operating Revenues</b>						
Retail Water Sales	\$ 52,447,834	\$ 51,691,289	\$ 53,051,469	\$ 52,666,859	1.89 %	(0.72)%
Wholesale Water Sales	4,759,177	4,510,668	4,302,000	4,487,510	(0.51)%	4.31 %
Penalties and Turn-on Charges	2,326,807	2,361,781	2,209,500	2,365,000	0.14 %	7.04 %
Ancillary Charges	4,534,614	6,622,930	6,622,225	8,286,861	25.12 %	25.14 %
Maumelle Surcharge Revenue	2,234,840	2,242,095	2,215,500	2,235,000	(0.32)%	0.88 %
Other Revenue	648,022	604,367	498,000	528,101	(12.62)%	6.04 %
<b>Total Operating Revenues</b>	<b>66,951,294</b>	<b>68,033,130</b>	<b>68,898,694</b>	<b>70,569,331</b>	<b>3.73 %</b>	<b>2.42 %</b>
<b>Operating Expenses</b>						
Labor and Benefits	27,075,074	28,512,650	29,363,721	30,214,731	5.97 %	2.90 %
Materials, Supplies, and Maintenance	6,638,540	6,686,621	6,598,146	7,712,922	15.35 %	16.90 %
Electric and Other Utilities	4,168,995	4,828,333	4,455,544	4,179,584	(13.44)%	(6.19)%
Contract Services	3,163,144	3,198,800	3,543,851	3,314,107	3.60 %	(6.48)%
Chemicals	1,663,964	1,795,587	1,621,046	1,893,988	5.48 %	16.84 %
Transition Cost - MWM	9,244	7,408	125,000	—	(100.00)%	(100.00)%
Depreciation	12,687,334	12,850,010	12,770,617	13,057,839	1.62 %	2.25 %
Other	41,112	36,732	50,000	51,750	40.89 %	3.50 %
<b>Total Operating Expenses</b>	<b>55,447,407</b>	<b>57,916,141</b>	<b>58,527,925</b>	<b>60,424,921</b>	<b>4.33 %</b>	<b>3.24 %</b>
<b>Operating Income (Loss)</b>	<b>11,503,887</b>	<b>10,116,989</b>	<b>10,370,769</b>	<b>10,144,410</b>	<b>0.27 %</b>	<b>(2.18)%</b>
<b>Non-operating Revenue (Expense)</b>						
Payment-in-lieu-of-taxes	(709,068)	(791,064)	(791,064)	(802,256)	1.41 %	1.41 %
Investment Income	845,536	1,183,131	609,750	1,121,504	(5.21)%	83.93 %
Gain/Loss on Sale of Assets	(17,965)	85,638	—	—	(100.00)%	— %
Bond Interest Expense	(1,398,131)	(2,090,086)	(2,513,467)	(1,971,604)	(5.67)%	(21.56)%
Bond Interest Expense - Maumelle	(716,588)	(594,846)	(662,744)	(647,779)	8.90 %	(2.26)%
Interest Expense - Other	(8,203)	(33,941)	(107,244)	(100,776)	196.92 %	(6.03)%
<b>Total Non-operating Revenue (Expense)</b>	<b>(2,004,419)</b>	<b>(2,241,168)</b>	<b>(3,464,769)</b>	<b>(2,400,911)</b>	<b>7.13 %</b>	<b>(30.71)%</b>
<b>Net Income (Loss) Before Contributions</b>	<b>9,499,468</b>	<b>7,875,821</b>	<b>6,906,000</b>	<b>7,743,499</b>	<b>(1.68)%</b>	<b>12.13 %</b>
<b>Contributions</b>						
Capital Contributions from Grantors	—	81,872	327,500	—	(100.00)%	(100.00)%
Contributions-in-aid of Construction	2,580,491	3,279,045	2,500,000	2,500,000	(23.76)%	— %
<b>Total Contributions</b>	<b>2,580,491</b>	<b>3,360,917</b>	<b>2,827,500</b>	<b>2,500,000</b>	<b>(25.62)%</b>	<b>(11.58)%</b>
<b>Change in Net Position</b>	<b>\$ 12,079,959</b>	<b>\$ 11,236,738</b>	<b>\$ 9,733,500</b>	<b>\$ 10,243,499</b>	<b>(8.84)%</b>	<b>5.24 %</b>

**STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION  
(BY DEPARTMENT – PERCENTAGE CHANGES)**

	2018	2019	2019	2020	CHANGE FROM	CHANGE FROM
	ACTUAL	PROJECTED	BUDGET	BUDGET	2019	2019
					PROJECTED	BUDGET
<b>Operating Revenues</b>						
Retail Water Sales	\$ 52,447,834	\$ 51,691,289	\$ 53,051,469	\$ 52,666,859	1.89 %	(0.72)%
Wholesale Water Sales	4,759,177	4,510,668	4,302,000	4,487,510	(0.51)%	4.31 %
Penalties and Turn-on Charges	2,326,807	2,361,781	2,209,500	2,365,000	0.14 %	7.04 %
Ancillary Charges	4,534,614	6,622,930	6,622,225	8,286,861	25.12 %	25.14 %
Maumelle Surcharge Revenue	2,234,840	2,242,095	2,215,500	2,235,000	(0.32)%	0.88 %
Other Revenue	648,022	604,367	498,000	528,101	(12.62)%	6.04 %
<b>Total Operating Revenues</b>	<b>66,951,294</b>	<b>68,033,130</b>	<b>68,898,694</b>	<b>70,569,331</b>	<b>3.73 %</b>	<b>2.42 %</b>
<b>Operating Expenses</b>						
Administration	4,948,522	5,460,663	5,912,328	6,251,320	14.48 %	5.73 %
Information Services	3,207,697	3,342,409	3,305,873	3,904,008	16.80 %	18.09 %
Customer Service	3,153,666	3,413,875	3,446,485	3,589,725	5.15 %	4.16 %
Finance	2,798,567	2,750,977	2,849,566	2,891,086	5.09 %	1.46 %
General	2,409,470	2,411,432	2,492,967	2,245,599	(6.88)%	(9.92)%
Engineering	1,904,035	2,005,471	2,340,071	2,247,750	12.08 %	(3.95)%
Water Production	10,003,169	11,157,742	10,907,689	11,018,284	(1.25)%	1.01 %
Distribution	14,334,947	14,523,562	14,502,329	15,219,310	4.79 %	4.94 %
Depreciation	12,687,334	12,850,010	12,770,617	13,057,839	1.62 %	2.25 %
<b>Total Operating Expenses</b>	<b>55,447,407</b>	<b>57,916,141</b>	<b>58,527,925</b>	<b>60,424,921</b>	<b>4.33 %</b>	<b>3.24 %</b>
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Investment Income	845,536	1,183,131	609,750	1,121,504	(5.21)%	83.93 %
Gain/Loss on Sale of Assets	(17,965)	85,638	—	—	(100.00)%	— %
Bond Interest Expense	(1,398,131)	(2,090,086)	(2,513,467)	(1,971,604)	(5.67)%	(21.56)%
Bond Interest Expense - Maumelle	(716,588)	(594,846)	(662,744)	(647,779)	8.90 %	(2.26)%
Interest Expense-Other	(8,203)	(33,941)	(107,244)	(100,776)	196.92 %	(6.03)%
<b>Total Non-operating Revenue (Expense)</b>	<b>(2,004,419)</b>	<b>(2,241,168)</b>	<b>(3,464,769)</b>	<b>(2,400,911)</b>	<b>7.13 %</b>	<b>(30.71)%</b>
<b>Net Income (Loss) Before Contributions</b>	<b>9,499,468</b>	<b>7,875,821</b>	<b>6,906,000</b>	<b>7,743,499</b>	<b>(1.68)%</b>	<b>12.13 %</b>
<b>Contributions</b>						
Capital Contributions from Grantors	—	81,872	327,500	—	(100.00)%	(100.00)%
Contributions-in-aid of Construction	2,580,491	3,279,045	2,500,000	2,500,000	(23.76)%	— %
<b>Total Contributions</b>	<b>2,580,491</b>	<b>3,360,917</b>	<b>2,827,500</b>	<b>2,500,000</b>	<b>(25.62)%</b>	<b>(11.58)%</b>
<b>Change in Net Position</b>	<b>\$ 12,079,959</b>	<b>\$ 11,236,738</b>	<b>\$ 9,733,500</b>	<b>\$ 10,243,499</b>	<b>(8.84)%</b>	<b>5.24 %</b>

## STATEMENT OF REVENUES

	INSIDE	OUTSIDE	TOTAL
<b>Operating Revenues</b>			
<b>Retail Water Sales – Little Rock</b>			
Residential	\$ 11,137,977	\$ 2,392,258	\$ 13,530,235
Commercial	8,137,656	320,793	8,458,449
Large Volume	1,552,784	201,784	1,754,568
Sprinkler	9,456,454	259,665	9,716,119
Raw Water	23,715	60,000	83,715
Private Fire Service	497,136	53,898	551,034
<b>Total Little Rock</b>	<b>30,805,722</b>	<b>3,288,398</b>	<b>34,094,120</b>
<b>Retail Water Sales – North Little Rock</b>			
Residential	3,948,253	4,729,821	8,678,074
Commercial	2,620,996	932,545	3,553,541
Large Volume	432,573	50,858	483,431
Sprinkler	1,453,569	684,798	2,138,367
Private Fire Service	93,823	86,833	180,656
<b>Total North Little Rock</b>	<b>8,549,214</b>	<b>6,484,855</b>	<b>15,034,069</b>
<b>Retail Water Sales – Maumelle</b>			
Residential		1,933,157	1,933,157
Commercial		528,106	528,106
Large Volume		224,691	224,691
Sprinkler		804,116	804,116
Private Fire Service		48,600	48,600
<b>Total Maumelle</b>		<b>3,538,670</b>	<b>3,538,670</b>
<b>Total Retail Water Sales</b>	<b>39,354,936</b>	<b>13,311,923</b>	<b>52,666,859</b>
<b>Wholesale Water Sales</b>			
Bryant Water and Sewer Department		1,200,316	1,200,316
Shannon Hills		161,727	161,727
Sardis Water Association		104,867	104,867
Saline County Water and Sewer Public Facilities Board (Woodland Hills)		1,530,953	1,530,953
Salem Water Users Association		83,644	83,644
Jacksonville Water Works		30,731	30,731
Mid Arkansas Utilities		1,124,540	1,124,540
Ridgefield Estates Public Facilities Board		13,002	13,002
Cabot Water Works		237,730	237,730
<b>Total Wholesale Water Sales</b>		<b>4,487,510</b>	<b>4,487,510</b>
<b>Penalties and Turn-on Charges</b>			
Penalties		955,000	955,000
Turn-on Charges		1,410,000	1,410,000
<b>Total Penalties and Turn-on Charges</b>		<b>2,365,000</b>	<b>2,365,000</b>
<b>Ancillary Charges</b>			
Billing and Ancillary Fees		5,222,361	5,222,361
Connection Fees		875,000	875,000
Watershed Protection Fees		1,725,000	1,725,000
Capital Investment Charges		145,000	145,000
System Development Charges		319,500	319,500
<b>Total Ancillary Charges</b>		<b>8,286,861</b>	<b>8,286,861</b>
<b>Maumelle Transition Surcharges</b>		<b>2,235,000</b>	<b>2,235,000</b>

	<u>INSIDE</u>	<u>OUTSIDE</u>	<u>TOTAL</u>
<i>Other Revenue</i>		<u>528,101</u>	<u>528,101</u>
<i>Total Operating Revenues</i>	<u>39,354,936</u>	<u>31,214,395</u>	<u>70,569,331</u>
<i>Non-operating Revenues</i>			
Interest Income		781,000	781,000
Bond Issue Interest Income		<u>340,504</u>	<u>340,504</u>
<i>Total Non-operating Revenues</i>		<u>1,121,504</u>	<u>1,121,504</u>
<i>Total Operating and Non-operating Revenues</i>	<u>\$39,354,936</u>	<u>\$32,335,899</u>	<u>\$71,690,835</u>

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**STATEMENT OF OPERATING EXPENSES  
(BY DEPARTMENT AND NATURAL CLASSIFICATION)**

	Materials							Departmental Total
	Labor and Benefits	Supplies and Maintenance	Electric and Other Utilities	Contract Services	Chemicals	Depreciation	Other	
<b>Administration</b>								
Administration	\$ 1,513,523	\$ 363,800	\$ 2,400	\$ 463,400	\$ —	\$ —	\$ 39,750	\$ 2,382,873
Human Resources	502,975	64,250	480	45,300	—	—	—	613,005
Public Affairs and Communications	492,688	250,550	2,520	137,100	—	—	12,000	894,858
Environmental Health and Safety	512,693	152,496	1,440	207,403	—	—	—	874,032
Water Quality	203,117	47,450	720	394,604	—	—	—	645,891
Watershed Management	395,995	57,020	2,040	208,035	—	—	—	663,090
Commissioners Expense	—	1,200	—	14,400	—	—	—	15,600
Special Projects	10,231	34,900	27,500	89,340	—	—	—	161,971
<b>Total Administration</b>	<b>3,631,222</b>	<b>971,666</b>	<b>37,100</b>	<b>1,559,582</b>	<b>—</b>	<b>—</b>	<b>51,750</b>	<b>6,251,320</b>
<b>Information Services</b>								
Administration	1,205,363	1,293,075	506,000	23,300	—	—	—	3,027,738
Geographic Information System	658,275	204,854	—	13,141	—	—	—	876,270
<b>Total Information Systems</b>	<b>1,863,638</b>	<b>1,497,929</b>	<b>506,000</b>	<b>36,441</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>3,904,008</b>
<b>Customer Service</b>								
Administration	135,206	47,580	1,080	63,672	—	—	—	247,538
Cashiering	479,569	—	—	—	—	—	—	479,569
Call Center	1,199,025	—	—	—	—	—	—	1,199,025
Walk-in	275,692	—	—	—	—	—	—	275,692
Meter Reading	791,122	1,200	—	—	—	—	—	792,322
Production Meter Reading	595,579	—	—	—	—	—	—	595,579
<b>Total Customer Service</b>	<b>3,476,193</b>	<b>48,780</b>	<b>1,080</b>	<b>63,672</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>3,589,725</b>
<b>Finance</b>								
Administration	1,111,869	85,139	480	342,340	—	—	—	1,539,828
Billing	457,908	601,550	—	5,680	—	—	—	1,065,138
Purchasing	276,725	970	480	7,945	—	—	—	286,120
<b>Total Finance</b>	<b>1,846,502</b>	<b>687,659</b>	<b>960</b>	<b>355,965</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>2,891,086</b>
<b>General and Depreciation</b>	<b>1,477,200</b>	<b>237,200</b>	<b>104,000</b>	<b>427,199</b>	<b>—</b>	<b>13,057,839</b>	<b>—</b>	<b>15,303,438</b>
<b>Engineering</b>								
Administration	1,554,954	77,660	4,080	29,882	—	—	—	1,666,576
New Service	196,143	640	—	420	—	—	—	197,203
Cross-Connection Control	367,591	11,340	1,800	3,240	—	—	—	383,971
<b>Total Engineering</b>	<b>2,118,688</b>	<b>89,640</b>	<b>5,880</b>	<b>33,542</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>2,247,750</b>
<b>Water Production</b>								
Administration	452,212	927	1,440	4,014	—	—	—	458,593
Lake Maumelle	481,818	50,242	1,125,000	8,878	10,737	—	—	1,676,675
Lake Winona	202,134	14,450	14,000	331	—	—	—	230,915
Ozark Point Plant	591,654	88,700	213,000	1,000	199,668	—	—	1,094,022
Wilson Plant	2,335,544	250,339	1,352,824	52,244	1,683,583	—	—	5,674,534
Booster Stations/ Jackson Reservoir	—	—	760,000	—	—	—	—	760,000
Compliance	351,805	20,500	—	6,525	—	—	—	378,830
Laboratory	447,075	223,840	—	73,800	—	—	—	744,715
<b>Total Water Production</b>	<b>4,862,242</b>	<b>648,998</b>	<b>3,466,264</b>	<b>146,792</b>	<b>1,893,988</b>	<b>—</b>	<b>—</b>	<b>11,018,284</b>

	Materials						Departmental	
	Labor and Benefits	Supplies and Maintenance	Electric and Other Utilities	Contract Services	Chemicals	Depreciation	Other	Total
<b>Distribution</b>								
Administration	590,490	203,550	58,300	686,614	—	—	—	1,538,954
Meters, Warehouse, and Dispatch	1,183,886	3,100	—	400	—	—	—	1,187,386
Pump Station Maintenance	855,884	122,500	—	—	—	—	—	978,384
Plant Maintenance – Ozark/Wilson	980,461	429,500	—	3,300	—	—	—	1,413,261
Distribution System Maintenance	5,792,170	2,754,900	—	600	—	—	—	8,547,670
Distribution Field Service	1,536,155	17,500	—	—	—	—	—	1,553,655
<b>Total Distribution</b>	<b>10,939,046</b>	<b>3,531,050</b>	<b>58,300</b>	<b>690,914</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>15,219,310</b>
<b>Total</b>	<b>\$30,214,731</b>	<b>\$ 7,712,922</b>	<b>\$ 4,179,584</b>	<b>\$3,314,107</b>	<b>\$ 1,893,988</b>	<b>\$ 13,057,839</b>	<b>\$ 51,750</b>	<b>\$ 60,424,921</b>

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## STATEMENT OF NET POSITION

<b>Beginning Net Position, 1/1/2019</b>	\$	363,031,239
Operating Revenues, 2019		68,033,130
Operating Expenses, 2019		(57,916,141)
Other Expense, 2019		(2,241,168)
Contributions, 2019		3,360,917
Change in Net Position, 2019		11,236,738
Ending Net Position, 12/31/2019		374,267,977
Beginning Net Position, 1/1/2020		374,267,977
Operating Revenues, 2020		70,569,331
Operating Expenses, 2020		(60,424,921)
Other Expense, 2020		(2,400,911)
Contributions, 2020		2,500,000
Change in Net Position, 2020		10,243,499
<b>Ending Net Position, 12/31/2020</b>	<b>\$</b>	<b>384,511,476</b>

Ending Net Position is based on 2019 projected numbers and 2020 budgeted numbers.



# BUDGETED POSITIONS

Central Arkansas Water budgets employee positions on an annual basis. Total budgeted positions remain the same in the 2020 budget. A total of 343 budgeted positions are identified in the accompanying Summary of Budgeted Positions which lists the department, section, and number of budgeted and actual positions.

## **Administration**

The Administration Department includes EHS, Human Resources, Public Affairs and Communications, Watershed Protection, Watershed Management, and Special Projects as well as the CEO and his staff. Administration is budgeted with 32 positions in 2020. One position, Billing Account Specialist Project Team Member (PTM), was removed from the authorized headcount, while a Facilities Manager was added to authorized headcount, resulting in a net difference of zero.

## **Information Services**

The budgeted IS staff increases by one from the 2019 budget to a total of 19 employees. An Infrastructure Manager is an addition to the IS staff for 2020. The IS budgeted positions include a Director, 11 IS support staff, a GIS Manager, and six GIS staff. Actual department employment is 15, with three vacant positions as of September 1, 2019.

## **Customer Service**

The 2020 budgeted positions for Customer Service remains the same as the 2019 budget with 53 budgeted positions. The Meter Reading section of the department underwent a change with five Production Meter Reader positions changing to full-time from part-time. However, the overall headcount did not change. The department consists of 32 Customer Service employees, 12 full-time Meter Reading Staff/Supervisor, and nine part-time Production Meter Readers.

## **Finance**

Finance remains constant from 2019 to 2020 with a total of 22 employees. The 2020 Finance budgeted positions include 13 Accounting staff, three Purchasing staff, and six Billing staff. Finance employs two part-time CAW retirees.

## **Engineering**

The Engineering Department 2020 budget decreases by one to a total of 25 positions. This decrease is due to the retirement of the Manager of Planning, Regionalism, and Future Water Source. The department includes 17 Engineering staff, four New Service staff, and four Cross Connection staff. The Administrative Assistant position, the New Service Coordinator position and one New Service Representative are filled by CAW retirees who work on a part-time basis.

## **Water Production**

The budgeted positions for Water Production decrease by one to a total of 46 employees for the 2020 budget year. This decrease is due to the elimination of a Plant Maintenance Specialist position. Water Production staff includes the Director of Water Production, Administrative personnel, Treatment Plant, and Water Source employees.

## **Distribution**

Total staffing in Distribution increases by one to 146 employees for the 2020 budget period. This increase is due to the addition of an Instrument Technician III position. The Distribution Department includes a Director, an Assistant Director, Administrative Staff, as well as staff in the following sections: (1) Meters, Warehouse, Dispatch; (2) Pump Station Maintenance; (3) Plant Maintenance; (4) Distribution System Maintenance; and (5) Distribution Field Representatives. Water Distribution Specialists account for the greatest number of positions with 56, ranging from level I to level III.

<b>Change in Budgeted Positions by Year</b>					
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Administration</b>	0	0	+4	+9	0
<b>Information Services</b>	0	0	+1	0	+1
<b>Customer Service</b>	0	+3	+4	0	0
<b>Finance</b>	0	+4	0	-2	0
<b>Engineering</b>	0	+2	0	+2	-1
<b>Water Production</b>	-2	+8	+1	+1	-1
<b>Distribution</b>	+2	+20	-5	-2	+1

**SUMMARY OF BUDGETED POSITIONS**

	2016	2017	2018	2019	9/1/2019	2020
	Budget	Budget	Actual	Budget	Actual	Budget
<b>Administration</b>						
Management	5	5	6	8	8	9
Human Resources	4	4	4	4	4	4
Public Affairs and Communications	2	3	4	4	4	4
Environmental Health & Safety	4	3	5	5	5	5
Water Resources	1	1	1	1	1	1
Watershed Protection	4	4	3	4	4	4
Special Projects	1	—	—	6	5	5
<b>Total</b>	<b>21</b>	<b>20</b>	<b>23</b>	<b>32</b>	<b>31</b>	<b>32</b>
<b>Information Services</b>						
Administration	10	10	9	11	8	12
GIS	7	7	7	7	7	7
<b>Total</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>18</b>	<b>15</b>	<b>19</b>
<b>Customer Service</b>						
Administration	1	1	1	1	1	1
Cashiers	6	7	7	6	6	6
Call Center	16	15	18	19	19	19
Walk-in	4	4	2	4	3	4
Meter Reading - Truck	8	10	9	9	9	9
Meter Reading - Production	11	12	9	14	14	14
<b>Total</b>	<b>46</b>	<b>49</b>	<b>46</b>	<b>53</b>	<b>52</b>	<b>53</b>
<b>Finance</b>						
Administration	11	14	13	13	11	13
Billing	6	7	7	6	6	6
Purchasing	3	3	3	3	3	3
<b>Total</b>	<b>20</b>	<b>24</b>	<b>23</b>	<b>22</b>	<b>20</b>	<b>22</b>
<b>Engineering</b>						
Administration	15	17	17	18	18	18
New Service	3	3	3	3	3	3
Cross Connection	3	3	3	4	4	4
Regionalism	1	1	1	1	—	—
<b>Total</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>26</b>	<b>25</b>	<b>25</b>
<b>Water Production</b>						
Administration	3	3	3	3	3	3
Lake Maumelle	9	5	4	4	4	4
Lake Winona	—	—	—	2	2	2
Ozark Point WTP	4	6	5	6	5	5
Wilson WTP	12	22	23	24	23	24
Compliance	3	4	4	4	4	4
Laboratory	4	4	3	4	4	4
<b>Total</b>	<b>35</b>	<b>44</b>	<b>42</b>	<b>47</b>	<b>45</b>	<b>46</b>
<b>Distribution</b>						
Administration	4	4	4	4	4	4

**SUMMARY OF BUDGETED POSITIONS**

	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>9/1/2019</b>	<b>2020</b>
	<b>Budget</b>	<b>Budget</b>	<b>Actual</b>	<b>Budget</b>	<b>Actual</b>	<b>Budget</b>
Meters, Warehouse, Dispatch	14	14	14	14	13	14
Pump Station Maintenance	6	8	8	8	8	9
Plant Maintenance - Ozark/Wilson	7	12	10	10	10	10
Distribution System Maintenance	82	91	85	92	93	92
Facilities Maintenance	4	5	2	—	—	—
Field Representatives	15	18	18	17	16	17
<b>Total</b>	<b>132</b>	<b>152</b>	<b>141</b>	<b>145</b>	<b>144</b>	<b>146</b>
<b>Total All Departments</b>	<b>293</b>	<b>330</b>	<b>315</b>	<b>343</b>	<b>332</b>	<b>343</b>

An aerial photograph of a winding river flowing through a dense, lush green forest. The river is dark blue and reflects the surrounding trees. The forest is thick and covers the entire landscape, with rolling hills visible in the distance. The overall scene is serene and natural.

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# DEBT SERVICE

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## DEBT SERVICE – OVERVIEW

All of CAW's outstanding Revenue Bonds, other than the 2016 Maumelle Acquisition and Construction Bonds and Frazier Pike Public Facilities Board ANRC loan, are secured by and payable solely from the net revenues of the water system. CAW debt covenants specify that rates will be sufficient to meet a list of outflows (i.e., operations and maintenance expenses, principal and interest, capital needs, and allowances for contingencies and any temporary unanticipated reduction in revenues); that CAW will operate the system continually in an efficient and economical manner; that at all times CAW will maintain and preserve the system in good repair, working order, and condition so that the operating efficiency thereof will be of high integrity; that the financial books will be open for the trustee or its agent to inspect; that the system or any part of it will not be pledged except as provided for in the bond resolutions; that CAW will keep insurance in such amounts and against such risks as are usually carried by municipalities operating water systems in the State of Arkansas; and that CAW shall provide the trustee an annual audit within 120 days after the close of the year.

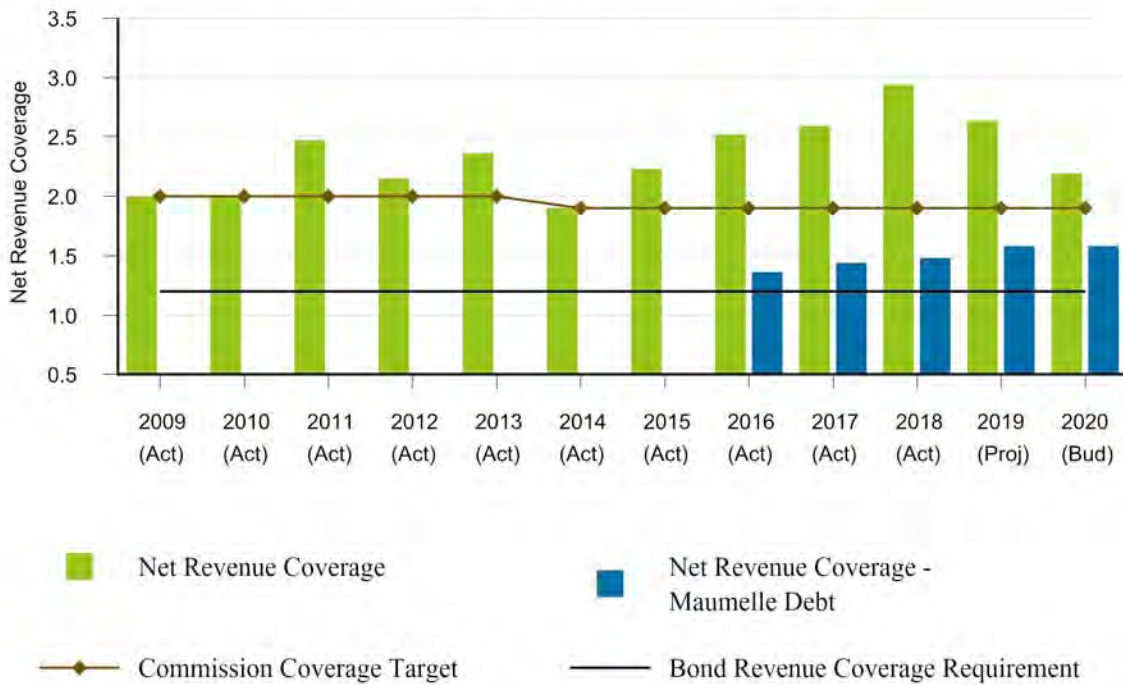
The 2016 Maumelle bond issue is payable from long-term debt surcharges applied to all customers in the former MWM service area. These charges will remain in place until sufficient funds have been collected to repay the \$17.99 million outstanding principal on this bond issuance.

The Frazier Pike Public Facilities Board is a rural water district operated by CAW. An ANRC loan for this district is secured by debt surcharges applied to all customers in that district.

## OUTSTANDING BOND ISSUES

Issue	Maturity Date	Original Amount	Outstanding Balance (Sept 30, 2019)
2010A	October 2032	\$ 13,400,000	\$ 9,615,000
2010C	October 2030	8,830,000	1,875,000
2011A	April 2034	4,000,000	3,327,000
2012A	October 2032	17,515,000	13,170,000
2014	October 2034	10,850,000	7,155,000
2015	October 2030	7,445,000	6,135,000
2016	October 2027	17,860,000	14,415,000
2016 Maumelle	April 2046	22,750,000	17,985,000
2017 Wilson	April 2041	5,000,000	4,426,000
2018A	September 2023	3,496,000	3,496,000
2018B	October 2038	20,000,000	20,000,000
2019 Ozark	April 2043	37,000,000	4,567,000
<b>TOTAL</b>		<b>\$ 168,146,000</b>	<b>\$ 106,166,000</b>

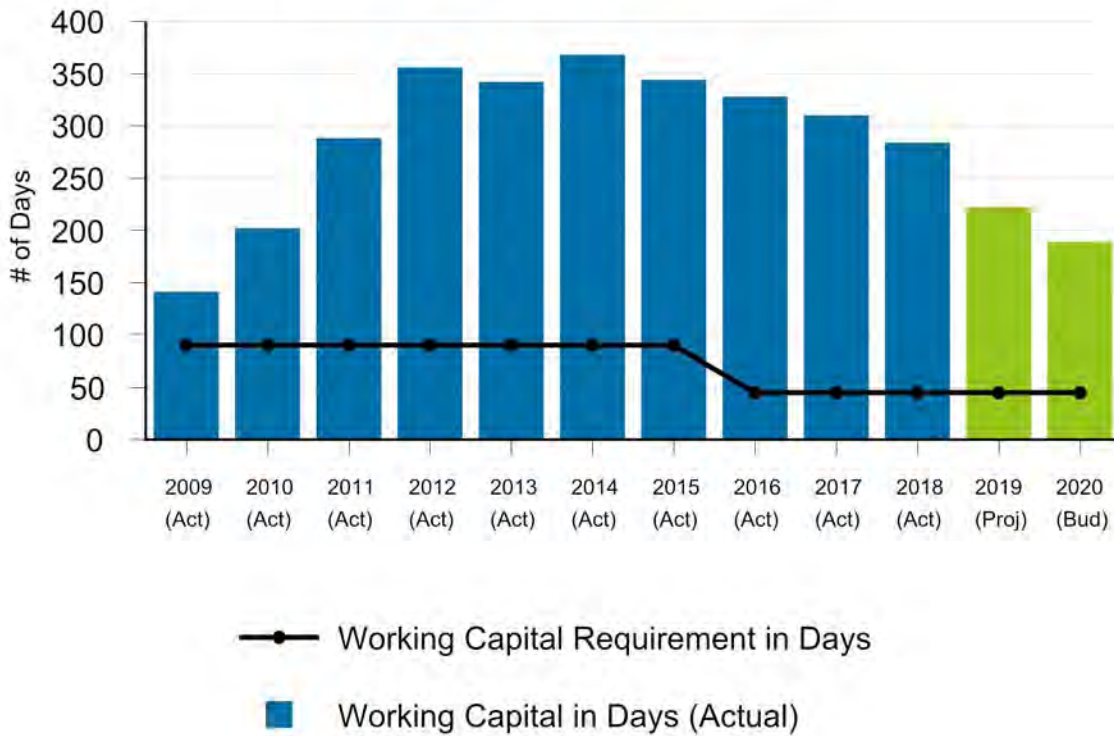
## Debt Service Coverage Ratio by Year



Bond covenants state that debt service coverage must not be less than 120% of the aggregate debt service due during the forthcoming fiscal year. Prior to 2014, the Commission had maintained a more conservative target of 200%, including Rate Stabilization Account transfers for Senior Debt. Resolution 2015-01 was enacted in March 2015 to clearly define triggers for Rate Stabilization Account transfers. The resolution establishes a debt service coverage target of 190% for Senior Debt. Coverage at or below 175% shall trigger a transfer from the Rate Stabilization Account, and coverage in excess of 200% shall trigger the transfer of general revenue funds to the Rate Stabilization Account. The chart above shows actual coverage for 2009 through 2018, projected coverage for 2019, and budgeted coverage for 2020. The Utility maintained coverage consistently above the previous 200% Commission target with the exception of 2014. The Rate Stabilization Account was established the following year. The Utility met the revised 190% Commission target in 2014. Utility projections reflect coverage at 219% for 2020.

The 2016 Maumelle Bond Issue is structured as special revenue debt secured by Long-Term Debt Surcharges on customers of the MWM service area. The Long-Term Surcharge was designed to yield net revenue coverage of 130%. The bond covenant requires coverage of not less than 120%. Net revenue coverage on the 2016 Maumelle Bond is projected at 158% for 2020.

## Operating Reserves by Year

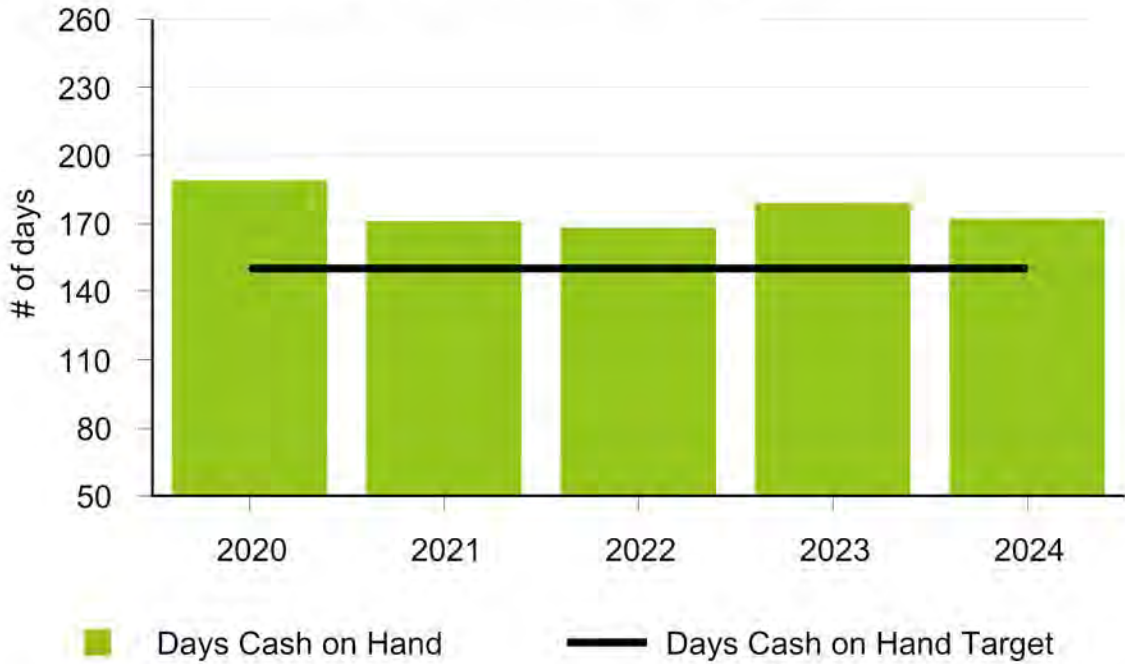


Bond covenants also require maintenance of minimum operating reserves. The chart above shows actual reserves on hand compared to the bond requirement for 2009 through 2018, shown in blue, and planned reserves on hand compared to the bond requirement for 2019 and 2020 based on forecasted numbers, shown in green. Prior to 2016, the bond covenant requirement for working capital was 90 days. With the 2016 Refinance bond issue, the working capital requirement was revised to 45 days beginning in 2016. The elevated reserves from 2010 to 2012 are due to three years of higher than normal consumption levels and revenues resulting from dry, warm weather conditions and the corresponding increase in irrigation. The 2020 budgeted decrease in reserves is a result of capital expenses and required additional debt service related to the 2018B bond issue to fund the replacement of the Utility's CIS as well as a number of infrastructure improvements.

A continued decline in working capital through 2023 is expected due to increased debt service from the ANRC funded improvements at the Wilson and Ozark Plants along with successive years of inflationary pressure on operating costs with no built-in rate increases to support Utility operating needs.



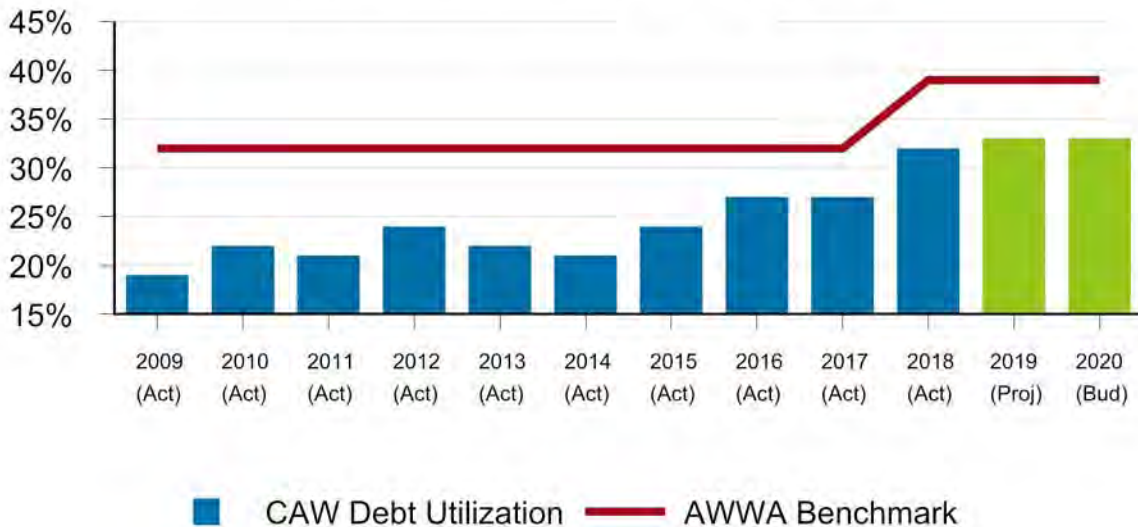
## Days Cash on Hand by Year



Beginning in 2016, CAW began utilizing days cash on hand as a tool to measure performance. The Utility has a goal of maintaining 150 days cash on hand as an operating reserve requirement. CAW takes a more conservative approach and builds its financial models based on 175 days cash on hand. The Utility projects to have 189 days cash on hand at the end of 2020. Days cash on hand begins to decline in 2020 and falls below the Utility goal of 150 days cash on hand in 2024. The Utility has no approved consumption-based retail rate increases for 2020 but does have a 15-cent increase in Watershed Protection Fee, beginning in January 2020. Increasing capital, operating, and debt service needs will require a rate increase by 2024 in order to maintain the Utility's goal for operating reserves.

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## Debt Utilization Ratio by Year



NOTE: The benchmark is derived from a 2017 survey by AWWA where the median debt obligation for water utilities was 39%. Prior to the 2017 survey, the benchmark was derived from the 2013 survey where the median debt obligation was 32%.

In 2019, ANRC bonds were issued for to fund the Ozark Point Plant improvements. Proceeds from this bond issue will be drawn over a four-year period, and repayment will begin in 2023. In 2019, CAW assumed a loan in the amount of \$3,562,000 from the Department of the U.S. Army to purchase water rights on 100 MGD from DeGray Lake, which will be repaid by the end of 2022. Another ANRC Bond issue for approximately \$9 million is planned in 2020 for the installation of solar arrays onto CAW land holdings. Repayment of these bonds will begin in 2021.

The chart above depicts CAW’s actual debt utilization ratio for 2009 through 2018, shown in blue, and estimated ratios for 2019 and 2020, shown in green, factoring in planned debt additions and repayments, as well as additional capital assets net of anticipated accumulated depreciation. Based on these estimates, the Utility’s debt position will remain positive and below the AWWA benchmark.

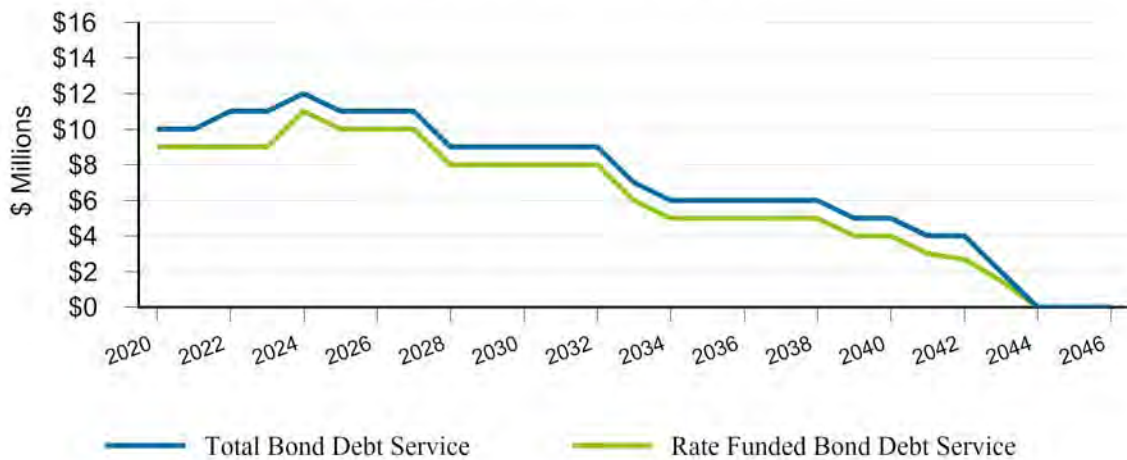
This data does not include possible debt service in relation to additions to the CAW system. In 2019, CAW performed feasibility studies to determine possible mergers with Paron-Owensville and the City of Shannon Hills Water Department that could result in bonds being issued.

The table and chart on the following pages depict debt service requirements for the full term of current and existing debt issues. Based on current and anticipated financing needs, the Utility's current rate model provides for sufficient revenue to meet all operating and rate-funded debt service requirements.

# DEBT SERVICE SCHEDULE

YEAR	OUTSTANDING DEBT			FUTURE DEBT			TOTAL
	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL	
2020	6,723,398	2,957,604	9,681,002	—	—	—	9,681,002
2021	7,069,375	2,764,212	9,833,587	361,279	202,500	563,779	10,397,366
2022	7,449,471	2,559,440	10,008,911	369,408	194,371	563,779	10,572,690
2023	7,187,843	2,752,231	9,940,074	377,719	186,060	563,779	10,503,853
2024	8,231,739	3,124,449	11,356,188	583,177	301,338	884,515	12,240,703
2025	7,104,332	2,860,481	9,964,813	596,822	287,693	884,515	10,849,328
2026	7,310,131	2,657,507	9,967,638	610,787	273,728	884,515	10,852,153
2027	7,514,313	2,453,556	9,967,869	625,080	259,435	884,515	10,852,384
2028	6,327,066	2,249,516	8,576,582	639,708	244,807	884,515	9,461,097
2029	6,513,590	2,061,573	8,575,163	654,678	229,837	884,515	9,459,678
2030	6,744,100	1,854,350	8,598,450	670,002	214,513	884,515	9,482,965
2031	6,368,834	1,635,916	8,004,750	685,683	198,832	884,515	8,889,265
2032	6,583,027	1,425,515	8,008,542	701,733	182,782	884,515	8,893,057
2033	4,776,686	1,217,197	5,993,883	718,160	166,355	884,515	6,878,398
2034	4,248,399	1,070,754	5,319,153	734,973	149,542	884,515	6,203,668
2035	4,237,744	947,704	5,185,448	752,181	132,334	884,515	6,069,963
2036	4,363,034	821,058	5,184,092	769,794	114,721	884,515	6,068,607
2037	4,494,711	688,359	5,183,070	787,820	96,695	884,515	6,067,585
2038	4,632,814	551,018	5,183,832	806,267	78,248	884,515	6,068,347
2039	3,342,381	409,326	3,751,707	825,149	59,366	884,515	4,636,222
2040	3,433,444	316,876	3,750,320	844,468	40,041	884,509	4,634,829
2041	3,366,438	221,267	3,587,705	300,474	20,262	320,736	3,908,441
2042	3,299,994	128,365	3,428,359	308,033	12,703	320,736	3,749,095
2043	1,426,530	48,532	1,475,062	276,605	4,954	281,559	1,756,621
2044	265,000	24,763	289,763	—	—	—	289,763
2045	275,000	15,313	290,313	—	—	—	290,313
2046	300,000	5,250	305,250	—	—	—	305,250
<b>TOTAL</b>	<b>\$133,589,394</b>	<b>\$37,822,132</b>	<b>\$171,411,526</b>	<b>\$14,000,000</b>	<b>\$3,651,117</b>	<b>\$17,651,117</b>	<b>\$189,062,643</b>

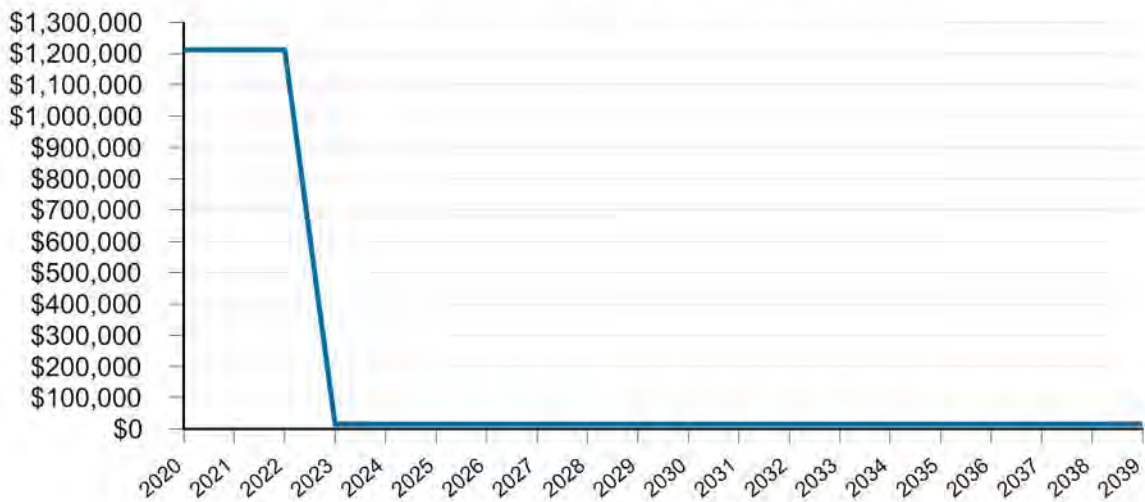
## Bond Issue Debt Service



## WATER RIGHTS PAYABLE DEBT SERVICE

YEAR	GREERS FERRY OUTSTANDING WATER RIGHTS PAYABLE			DEGRAY LAKE FUTURE WATER RIGHTS PAYABLE			TOTAL
	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL	
2020	7,572	7,495	15,067	1,103,440	93,280	1,196,720	1,211,787
2021	7,837	7,230	15,067	1,133,696	63,024	1,196,720	1,211,787
2022	8,111	6,956	15,067	1,164,782	31,938	1,196,720	1,211,787
2023	8,395	6,672	15,067	—	—	—	15,067
2024	8,689	6,378	15,067	—	—	—	15,067
2025	8,993	6,074	15,067	—	—	—	15,067
2026	9,308	5,759	15,067	—	—	—	15,067
2027	9,634	5,433	15,067	—	—	—	15,067
2028	9,971	5,096	15,067	—	—	—	15,067
2029	10,320	4,747	15,067	—	—	—	15,067
2030	10,681	4,386	15,067	—	—	—	15,067
2031	11,055	4,012	15,067	—	—	—	15,067
2032	11,442	3,625	15,067	—	—	—	15,067
2033	11,842	3,225	15,067	—	—	—	15,067
2034	12,257	2,810	15,067	—	—	—	15,067
2035	12,686	2,381	15,067	—	—	—	15,067
2036	13,130	1,937	15,067	—	—	—	15,067
2037	13,590	1,477	15,067	—	—	—	15,067
2038	14,065	1,002	15,067	—	—	—	15,067
2039	14,557	510	15,067	—	—	—	15,067
<b>TOTAL</b>	<b>\$ 214,135</b>	<b>\$ 87,205</b>	<b>\$ 301,340</b>	<b>\$ 3,401,918</b>	<b>\$ 188,242</b>	<b>\$ 3,590,160</b>	<b>\$ 3,891,500</b>

### Water Rights Payable Debt Service



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# CAPITAL IMPROVEMENT PLAN

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## **CAPITAL IMPROVEMENT PLAN – OVERVIEW**

CAW seeks to proactively address infrastructure needs as part of the Utility's commitment to ensure that customers receive the best possible service. The Utility's Capital Improvement Plan (CIP) is a five-year planning schedule that is approved and updated annually. Scheduled projects planned for 2020-2024 total \$148 million and address infrastructure investments, anticipated capital needs, repair, replacement, and relocation of existing infrastructure as well as the development or acquisition of new facilities, property, and equipment. The CIP serves as a tool to identify capital cost needs, coordinate financing, and specify the timing of these improvements.

The prioritization process for the CIP involves evaluating capital needs and ranking potential projects or purchases based on a number of criterion including: age and condition of asset to be replaced, operational improvements, compliance and system expansion requirements, and impact on future operating budgets.

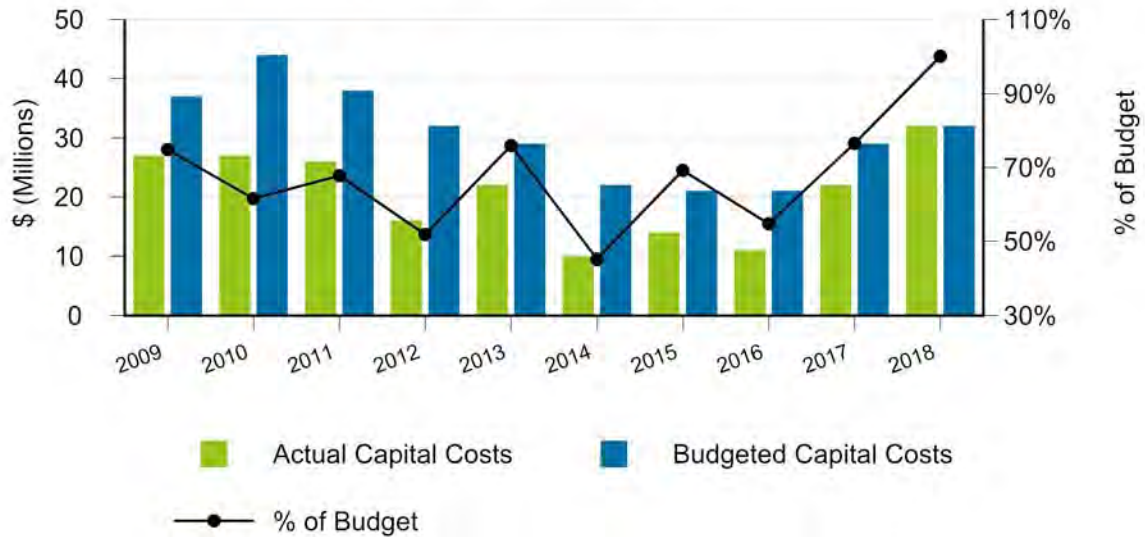
CAW goes a step further and utilizes a combination of methodologies for prioritizing underground pipelines for replacement. The most immediate are pipelines that are in the right-of-way of local streets or highways that are undergoing rehabilitation or widening and require that the existing utilities, including water mains, be relocated out of the way of those improvements. These pipeline assets, more commonly, have not reached the end of their useful lives but must be replaced regardless of age.

CAW staff have developed a matrix which assesses every length of pipe in the distribution system through the utilization of historical pipeline data combined with existing GIS information. Staff assign a numerical value for each of a number of variables which gauge the condition and criticality of that segment of pipe. The matrix then generates a numerical value with the highest number being the highest priority for pipeline replacement. This method identifies geographically disparate segments of pipe across the distribution system. In order to economize the replacement of these mains, minimize the disruption of service to customers, and reduce the number of disturbances of local streets and landscapes, CAW staff also evaluate pipelines adjacent to the high-priority segments for replacement. Industry research and CAW's own experience has shown pipe age and break history are very good predictors of future failure. Based on this information, older galvanized pipe, along with some older transmission mains made of asbestos-cement and cast iron will be the focus of CAW's replacement efforts.

CAW historically has not completed 100% of planned capital projects each budget year. The Utility must allocate funding for the projects from the proper funding source. The funding sources for 2020 include: 2018B Bond, ANRC Ozark, ANRC Solar, ANRC Wilson, MWM Rate Revenue, Watershed Protection Fees, Developer Funds, Capital Investment Charges, and Rates.

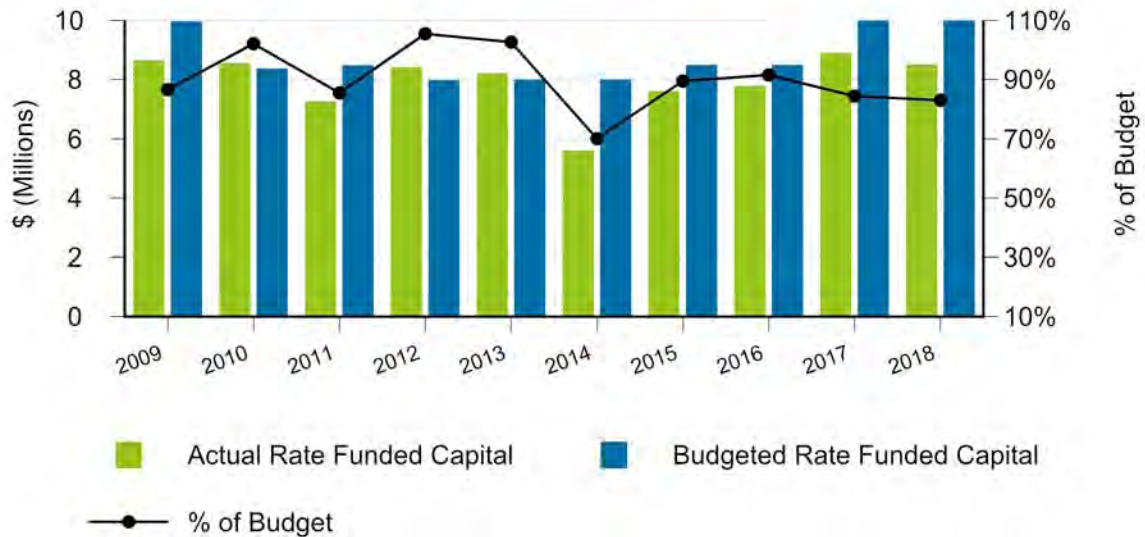
Total actual Capital Costs compared to budget for 2009 through 2018 are as follows:

### Capital Costs by Year



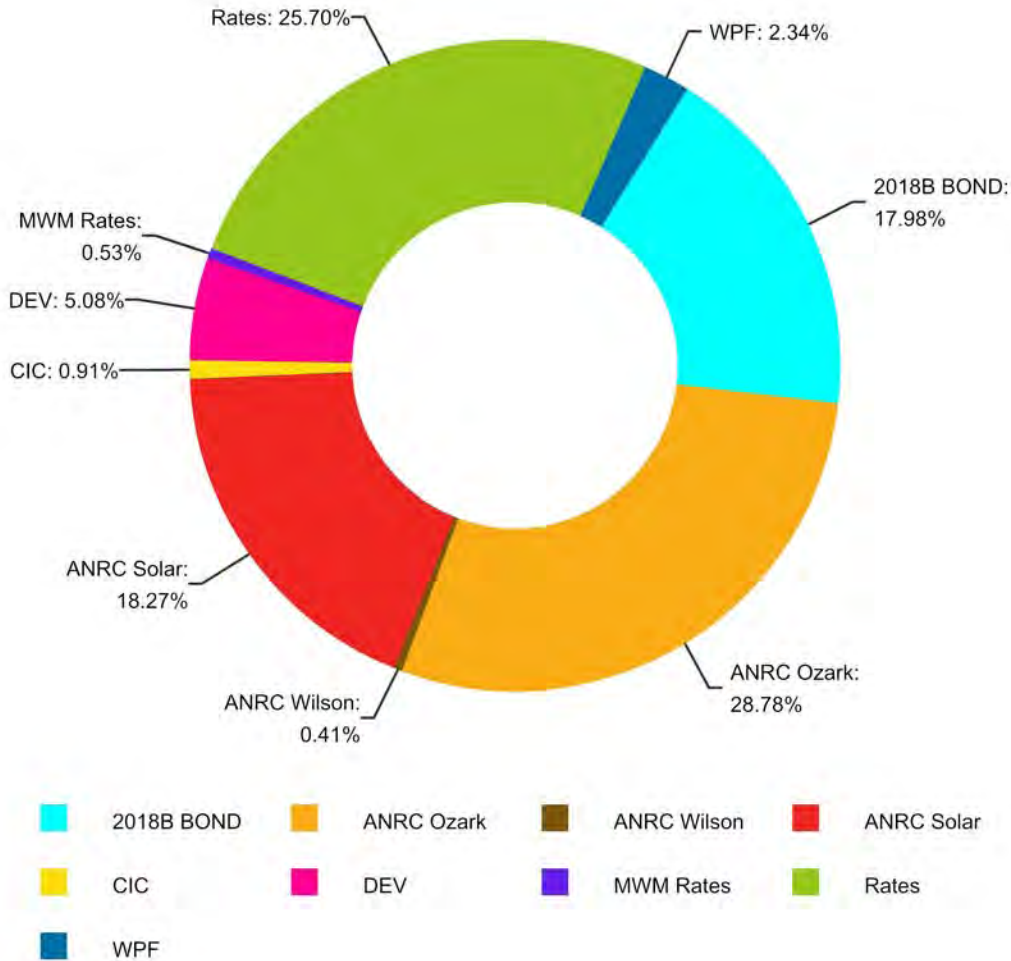
While overall actual capital spending sometimes varies greatly from budget due to delays in major relocation projects, the Utility has historically executed over 90% of projects funded by rates over the last ten years:

### Capital Costs from Rates by Year





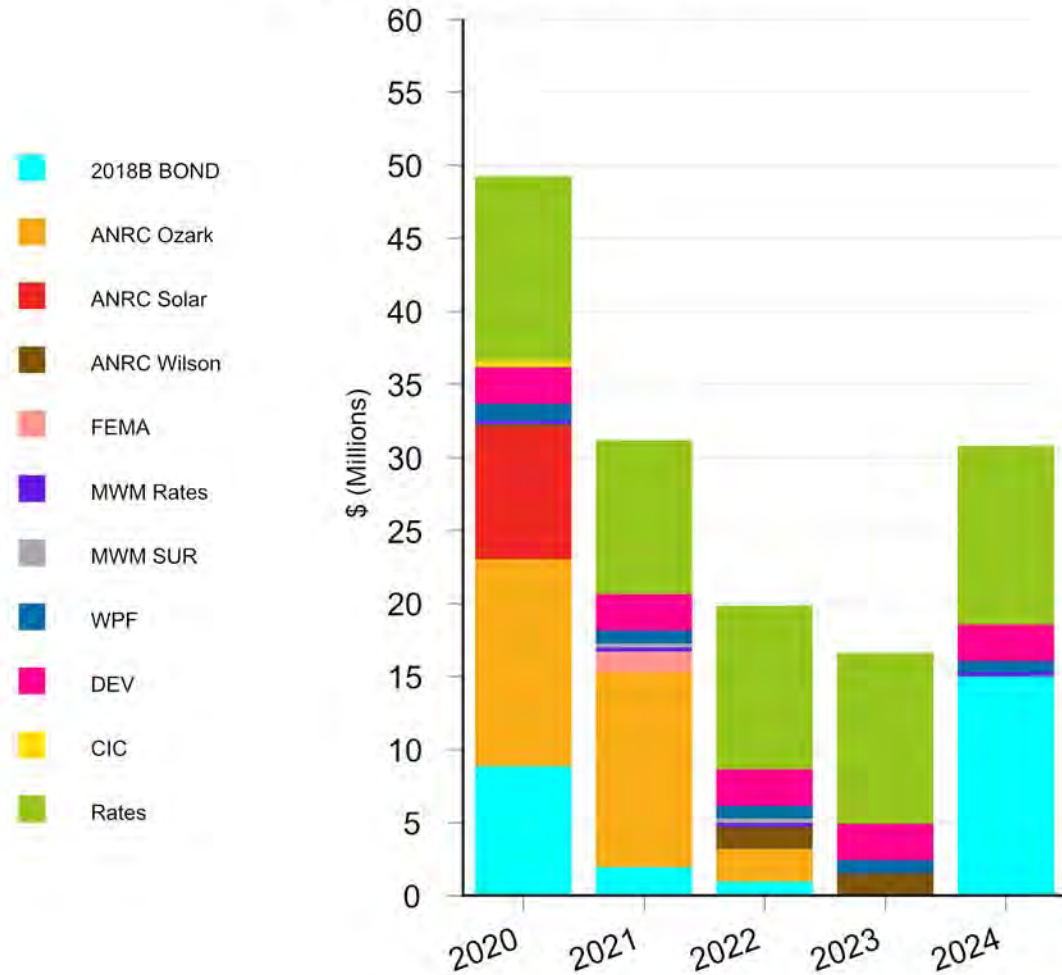
## 2020 CAPITAL COSTS By FUNDING SOURCE



The top three funding sources for planned 2020 Capital Costs are ANRC Ozark 28.78%, Rates 25.70%, and ANRC Solar 18.27%. The ANRC Ozark funds are for rehabilitation of the Ozark Point Plant, while Rates are used to fund replacements, relocations, and rehabilitation projects, and ANRC Solar is for installing solar arrays to reduce energy costs.

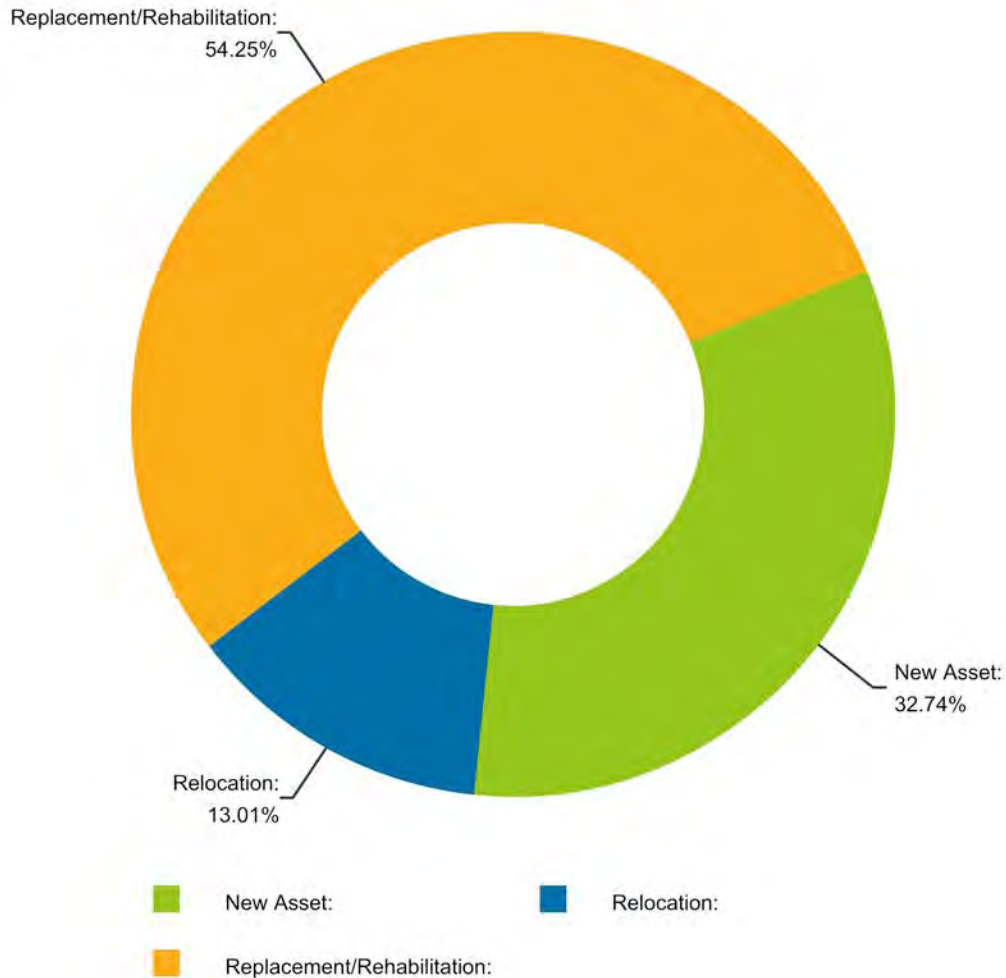
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## BUDGETED CAPITAL COSTS By FUNDING SOURCE



ANRC Ozark is the largest percentage of funding in 2020 - 2021 for the rehabilitation of the 80-year-old Ozark Point Plant to increase its functional life, efficiency, and effectiveness. Rates continue to be an important source of funding to support projects in each department over the next five years. In 2024, rehabilitation of certain components of the 60-year old Wilson Treatment Plant are expected to begin. The improvements will likely be financed through the State Revolving Loan Fund program administered by ANRC.

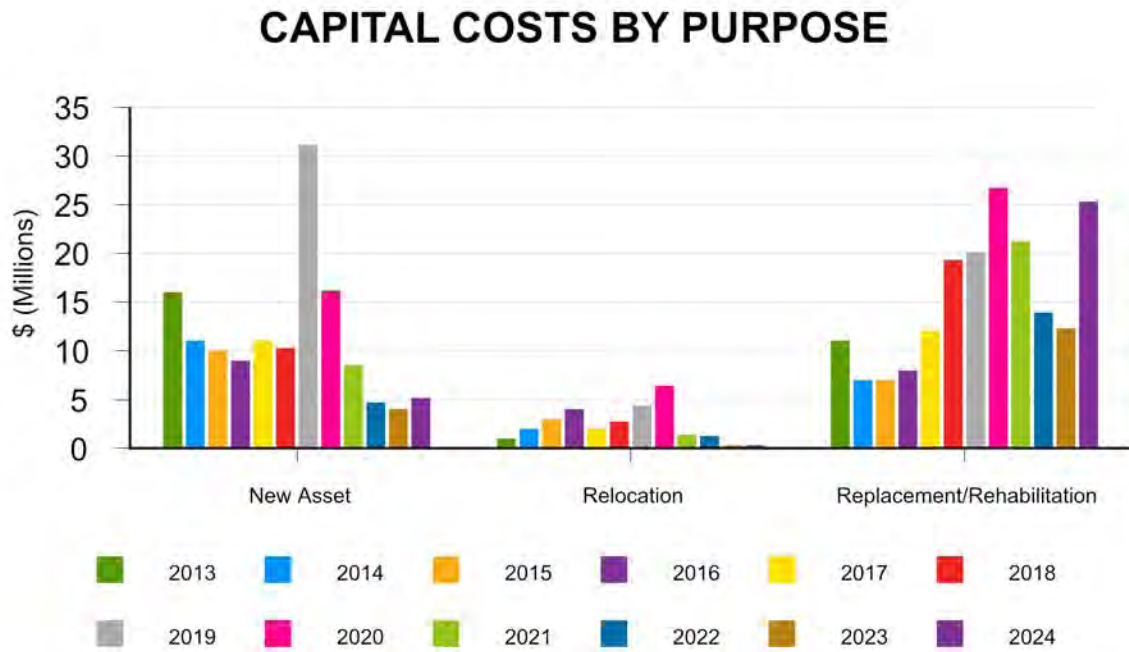
## 2020 CAPITAL COSTS By PURPOSE



There are three main categories of 2020 Capital Costs as noted in the above graph. Approximately 63.32% of the Replacement/Rehabilitation category is allocated for pumping and treatment projects related to the ANRC Ozark-funded rehabilitation work at the Ozark Point Plant as well as rate funded replacement of aging galvanized, asbestos-cement, and cast iron water mains throughout the distribution system. In the New Asset category, 55.81% is solar arrays and other energy conservation measures. Lastly, 100% of the remaining component of capital costs, Relocations, is comprised of relocations required by city, county, and state roadway projects throughout the Utility service area.

**Annual Cost Trend**

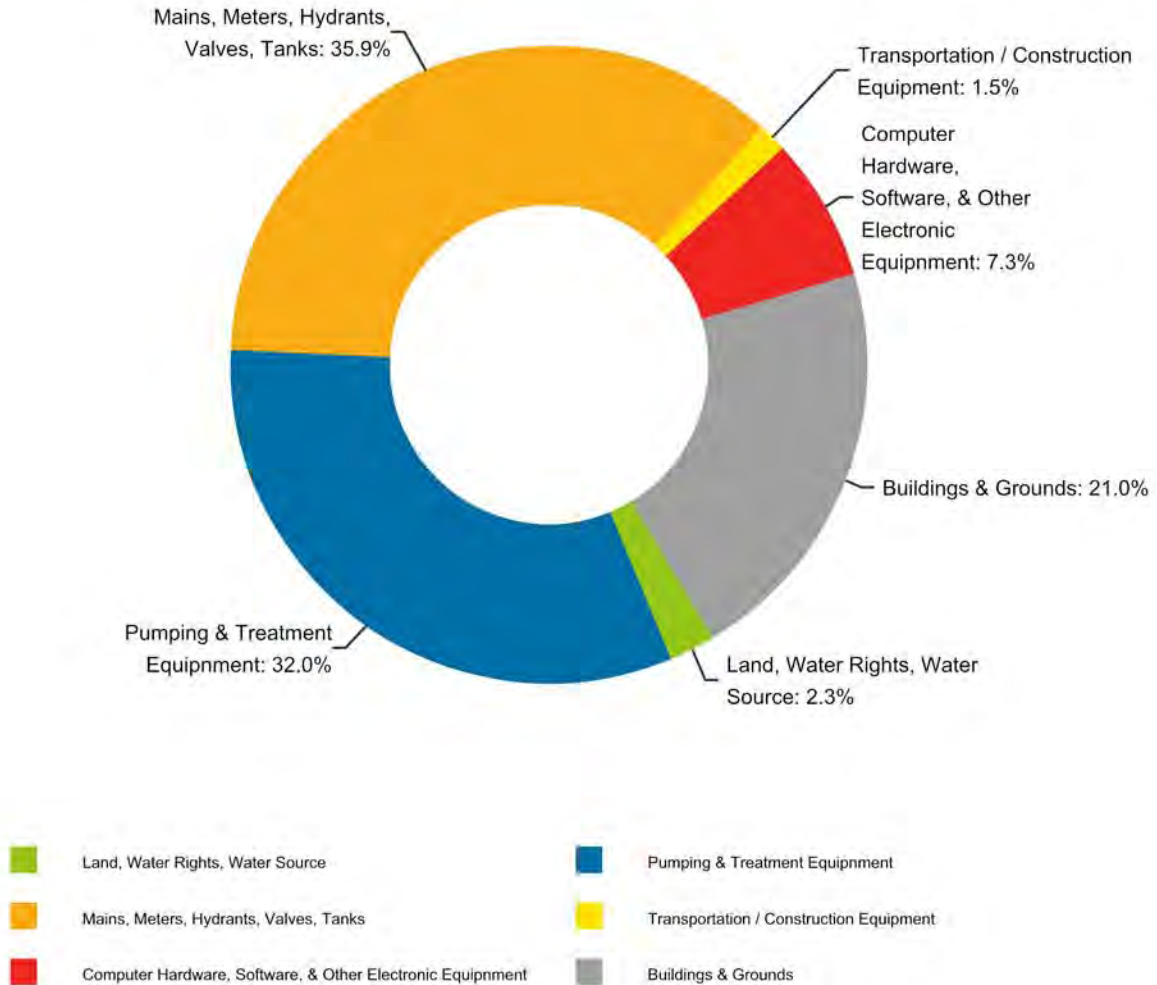
CAW anticipates completing approximately \$148 million in capital improvement projects from 2020-2024. During this five-year period, the largest year of capital costs is projected to be 2020.



Slightly larger increases in 2020-2021 are due to Replacement/Rehabilitation costs for continued improvements at the Ozark Point Plant as well as solar arrays and other energy conservation measures. The increase in 2024 is due to the Replacement/Rehabilitation costs for the Wilson Plant.

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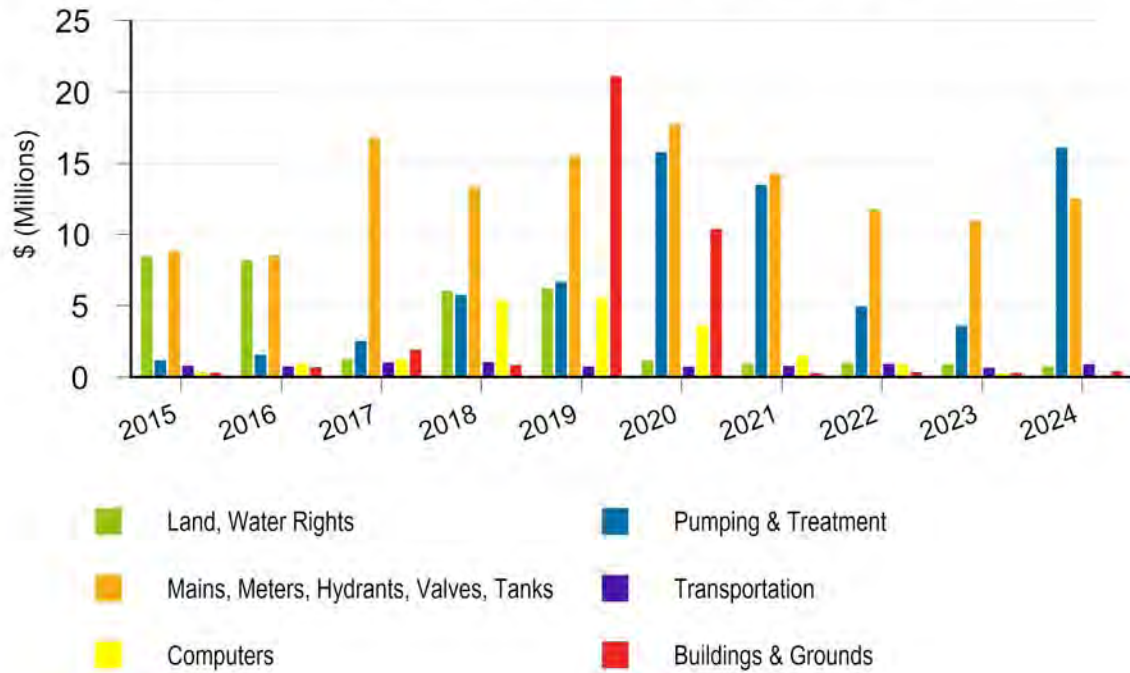
## 2020 CAPITAL COSTS BY ASSET



The largest portion of 2020 capital costs is 35.9% designated for distribution system assets (mains, meters, hydrants, valves, and tanks). Another 32% is related to pumping and treatment work for the replacement/rehabilitation of the Ozark Point Plant. Lastly, 21% is for buildings and grounds with the majority budgeted for the installation of solar arrays.

A departmental justification and any applicable impact on operations and maintenance expense is provided for each project in the 2020 CIP on pages 99-106. Additionally, all projects included in the next five years with a total cost of \$500,000 or greater are detailed on pages 117-160.

## BUDGETED CAPITAL COSTS BY ASSET



The Five-Year Plan includes details to expand and improve the water system on both sides of the Arkansas River from 2020 through 2024. CAW has established a continuous improvement plan for pipe replacement within the Utility's service area. This plan contributes to the consistency of Mains, Meters, Hydrants, Valves, and Tanks as one of the two highest cost categories since 2015. Aging pipe within the system composed of galvanized, asbestos-cement, and cast iron pipe is replaced with ductile iron and PVC to provide improved strength and performance.

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## **Unfunded Capital Projects**

There is approximately \$3.4 million in unfunded capital projects during the current five-year planning horizon. These projects include call center enhancement, various transmission main upgrades included in the Utility Master Plan, Panther Mountain to Maumelle interconnection, rebuilds of Lake Maumelle pumps and motors, city initiated water main relocation, tank restoration, and upgrades to real time posting. A detailed list of these unfunded projects is presented below.

<b>Description</b>	<b>Total</b>
Install Call Center Enhancement	\$ 100,000
Install Master Plan Distribution Mains - Various	500,000
Install 8-inch Water Main from Panther Mountain to Maumelle Interconnect	500,000
Rebuild Pump and Motor 5 Lake Maumelle	280,000
Rebuild Pump and Motor 6 Lake Maumelle	280,000
Rebuild Pump and Motor 7 Lake Maumelle	360,000
Relocate 12-inch Water Main - So. University - 28th/Col. Glenn - Little Rock	450,000
Restore - Tank #21	850,000
Upgrade Real Time Posting with FiServ (Payment Vendor)	70,000
	<u>\$3,390,000</u>

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**CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2020)**

DESCRIPTION	TOTAL	2018B Bond	ANRC Ozark	ANRC Solar	ANRC Wilson	MWM Rates	WPF	DEV	CIC	Rates
<b>ADMINISTRATION</b>										
Aerial Photography of Watershed - Lake Maumelle	10,000									10,000
Forest Restoration and Enhancement - Job No. 07554	25,000						25,000			
Improve Forest Roads and Access - Job No. 07390	50,000						50,000			
Improve Wilson Classroom Space - Job No. 08370	200,000	200,000								
Install Security System Improvements	20,000									20,000
Install Solar Arrays to Reduce Energy Costs	9,000,000			9,000,000						
Purchase Backpack Electrofisher	10,000						10,000			
Purchase Conservation Easements	200,000						200,000			
Purchase Property	500,000						500,000			
Replace Zero Turn Mower	16,000						16,000			
Restore Hydrologic Flow - USACE Sec. 206 Project - Job No. 08280	350,000						350,000			
<b>TOTAL</b>	<b>\$10,381,000</b>	<b>\$200,000</b>	<b>\$—</b>	<b>\$9,000,000</b>	<b>\$—</b>	<b>\$—</b>	<b>\$1,151,000</b>	<b>\$—</b>	<b>\$—</b>	<b>\$30,000</b>

<b>INFORMATION SERVICES</b>										
Assess Cloud Readiness Plan	25,000									25,000
Install Cityworks Enhancements	30,000									30,000
Purchase Document Management System	25,000									25,000
Purchase ESRI Tools Enhancements	25,000									25,000
Purchase Next Gen Itron Handheld Meter Readers	30,000									30,000
Purchase Operational Data Management and Reporting - Compliance and Analysis	30,000									30,000
Purchase Time & Attendance System / Human Resource Initiative	200,000									200,000
Re-Cable Clearwater	25,000									25,000
Replace and Upgrade Network Switches 10 Gb	125,000									125,000
Replace Customer Information System - Job No. 08288	2,387,620	816,130								1,571,490
SQL Licenses - Active Replication	50,000									50,000
Upgrade Enquesta Billing Serve/Storage Area Networks	33,510									33,510
Upgrade Financial Management Software	40,000									40,000



**CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2020)**

DESCRIPTION	TOTAL	2018B Bond	ANRC Ozark	ANRC Solar	ANRC Wilson	MWM Rates	WPF	DEV	CIC	Rates
Upgrade Supervisory Control and Data Acquisition System (SCADA) System Management/Security	60,000									60,000
<b>TOTAL</b>	<b>\$3,086,130</b>	<b>\$816,130</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$2,270,000</b>

**ENGINEERING**

Developer-Funded Capital	2,500,000							2,500,000		
Developer Participation - New Mains	100,000									100,000
Facility Improvements	50,000									50,000
Improve Booster Pump Station No. 11	330,000	330,000								
Improve Lake Winona Spillway	500,000									500,000
Improve Ozark Point Plant - Phase 2 Construction - Project No. 4687 - Job No. 07516B	13,750,000		13,750,000							
Improve Ozark Point Plant - Phase 2 Construction Phase Engineering Services - Project No. 4687 - Job No. 07516	428,335		428,335							
Install 24-inch Transmission Main - N. Locust Street/Pump Station No. 23 - North Little Rock	2,000,000	2,000,000								
Install 8-inch Water Main - Joslin Road/Oak Grove Looping	225,000									225,000
Install 8-inch Water Main Across I-40 at Harris Road	250,000									250,000
Participation - West Pulaski Water Authority - Burlingame/Kanis Road	200,000				200,000					
Professional Services - Engineering	5,000									5,000
Professional Services - Land Surveying	5,000									5,000
Professional Services - Property Appraisals	5,000									5,000
Purchase GPS Units	9,000									9,000
Relocate 12/8-inch Water Mains - Counts Massie/Crystal Hill Road - Project No. 4037 - Job No. 07360	450,000								450,000	
Relocate 16-inch Transmission Main - Capitol Drain/Gill Street Bridge - Phase 2 - Project No. 4922	350,000	350,000								
Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 1 - Job No. 08335	330,000	330,000								
Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 2 - Job No. 08335	1,550,000	1,550,000								
Relocate 30/16/12/8-inch Water Mains - Cantrell Rd/AR Highway 10/Rodney Parham Road - Phase 1	1,000,000	1,000,000								

**CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2020)**

DESCRIPTION	TOTAL	2018B Bond	ANRC Ozark	ANRC Solar	ANRC Wilson	MWM Rates	WPF	DEV	CIC	Rates
Relocate Water Mains - Camp Robinson Rd (AR Highway 176) at 54th Street - Project No. 4743	280,000	280,000								
Relocate Water Mains - Chicot Road Improvements - LR	400,000	400,000								
Relocate Water Mains - Gamble Road Improvements - LR	200,000	200,000								
Relocate Water Mains - Interstate 30 Widening - Various Locations	150,000	150,000								
Relocate Water Mains - Kanis Road Improvements - LR - Phase 3	350,000	350,000								
Relocate Water Mains - Kanis Road Improvements - LR - Phase 4	50,000									50,000
Relocate Water Mains - Mabelvale Pike Improvements - LR	400,000	400,000								
Relocate Water Mains - Rodney Parham Road Improvements - LR	500,000	500,000								
Relocate Water Mains - Various Known/Unknown Locations - State/County/City Improvements	400,000									400,000
Replace Vehicle (Truck 414)	27,000									27,000
Replace Water Mains - Aging Galvanized, Asbestos-Cement, Cast Iron - System-wide	3,169,000									3,169,000
<b>TOTAL</b>	<b>\$29,963,335</b>	<b>\$7,840,000</b>	<b>\$14,178,335</b>	<b>\$—</b>	<b>\$200,000</b>	<b>\$—</b>	<b>\$—</b>	<b>\$2,500,000</b>	<b>\$450,000</b>	<b>\$4,795,000</b>

**WATER PRODUCTION**

Evaluate Wilson Infrastructure Filters and Basins	450,000									450,000
Implement Tank Management System	50,000									50,000
Purchase Microwave Digestion System	30,000									30,000
Purchase On-Line Zeta Potential Meter Wilson Plant	82,000									82,000
Purchase Sampling Stations	15,000									15,000
Purchase Side by Side Utility Vehicle	15,000									15,000
Purchase Two Wilson Filter Smart Backwash Instrument	7,000									7,000
Purchase Type 1 Laboratory Water System	15,000									15,000
Rebuild Pump 1 Lake Maumelle	400,000									400,000
Rebuild Pump 3 Lake Maumelle	225,000									225,000
Rebuild Pump 4 Lake Maumelle	225,000									225,000
Replace 7 CL-17's, On-Line Monitors of Chlorine Residuals- Wilson and Ozark	45,000									45,000

**CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2020)**

DESCRIPTION	TOTAL	2018B Bond	ANRC Ozark	ANRC Solar	ANRC Wilson	MWM Rates	WPF	DEV	CIC	Rates
Replace Fence Jackson Reservoir	75,000									75,000
Replace SCADA System Programmable Logic Controllers	150,000									150,000
Replace Switchgear Programmable Logic Controllers Lake Maumelle Pump Station	145,000									145,000
Replace Switchgear Programmable Logic Controllers Wilson Plant	145,000									145,000
Replace Two Wilson Effluent Filter Valve Actuators	30,000									30,000
Secure SCADA Network	50,000									50,000
<b>TOTAL</b>	<b>\$2,154,000</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$2,154,000</b>

**DISTRIBUTION**

Arc Flash Hazard Analysis - Job No. 08275	60,000									60,000
Install and Replace Hydrants	125,000									125,000
Install Hydrants - Maumelle	6,250					6,250				
Install Mains - Maumelle	10,000					10,000				
Install Meters - Maumelle	7,500					7,500				
Install Meters for New Services	130,000									130,000
Install Overhead Fans - Clearwater	25,000									25,000
Install Valves	50,000									50,000
Install Valves - Maumelle	8,000					8,000				
Install, Replace, and Relocate Mains	160,000									160,000
Install, Replace, and Transfer Services - Maumelle	230,000					230,000				
Purchase 1.5 Ton Service Truck	56,000									56,000
Purchase Advanced Valve Technology EZ Valve	115,000									115,000
Purchase Setflow 100c Cellular Remote Smart Valve	10,000									10,000
Purchase/Install Meters - Change Out Program	600,000									600,000
Purchase/Install Services (New, Replace, Transfer)	1,300,000									1,300,000
Replace 1/2 Ton Truck(s) (5 trucks - 494, 460, 508, 504, 503)	114,000									114,000
Replace 2 Ton Dump Truck(s) (2 trucks - 470, 469)	180,000									180,000
Replace 3 Ton Dump Truck (531) - Maumelle	99,500									99,500

**CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2020)**

DESCRIPTION	TOTAL	2018B Bond	ANRC Ozark	ANRC Solar	ANRC Wilson	MWM Rates	WPF	DEV	CIC	Rates
Replace 3/4 Ton Service Truck (521) - Maumelle	35,000									35,000
Replace 3/4 Ton Service Truck(s) (3 trucks - 496, 492, 493)	106,500									106,500
Replace Air Piercing Tool	16,000									16,000
Replace One Ton Van	40,000									40,000
Replace One Ton Van (424)	40,000									40,000
Replace Variable Frequency Drives & Check Valve Pump 1 Station 22	40,000									40,000
Replace Wilson Filter Controls Solenoid Valve	96,000									96,000
Replace Wye Mountain Calcium Hypo Feeder Station 19	7,000									7,000
Upgrade RSLogix Software	6,000									6,000
<b>TOTAL</b>	<b>\$3,672,750</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$261,750</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$3,411,000</b>
<b>GRAND TOTAL</b>	<b>\$49,257,215</b>	<b>\$8,856,130</b>	<b>\$14,178,335</b>	<b>\$9,000,000</b>	<b>\$200,000</b>	<b>\$261,750</b>	<b>\$1,151,000</b>	<b>\$2,500,000</b>	<b>\$450,000</b>	<b>\$12,660,000</b>

Explanation of Funding Sources	
2018B BOND	2018 Bonds
ANRC Ozark	Arkansas Natural Resources
ANRC Solar	Arkansas Natural Resources
ANRC Wilson	Arkansas Natural Resources
MWM Rates	MWM Rate Revenue
WPF	Watershed Protection Fees
DEV	Developer Funding Capital
CIC	Capital Investment Charges
Rates	Rates

## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>ADMINISTRATION</b>		
<b>Aerial Photography of Watershed - Lake Maumelle</b>	10,000	
Aerial photography during extreme rain events will help determine the origins of potentially harmful runoff into Lake Maumelle and its tributaries.		
<b>Forest Restoration and Enhancement - Job No. 07554</b>	25,000	
Continuation of obligations for land/forest improvements associated with the Forest Legacy purchase of the former Winrock Grass Farm (WGF).		
<b>Improve Forest Roads and Access - Job No. 07390</b>	50,000	
Unmanaged roads significantly impact watershed and water quality. Management of these are critical for water quality improvement.		
<b>Improve Wilson Classroom Space - Job No. 08370</b>	200,000	
Install classroom space for CAW's education program		
<b>Install Security System Improvements</b>	20,000	
Upgrade outdated security system to current technologies.		
<b>Install Solar Arrays to Reduce Energy Costs</b>	9,000,000	(130,200)
Install solar arrays and other energy conservation measures to reduce energy consumption and operating expenses.		
<b>Purchase Backpack Electrofisher</b>	10,000	
Provides capability to sample, assess, and monitor fish communities in watershed tributaries to the lakes.		
<b>Purchase Conservation Easements</b>	200,000	5,000
Continuation of land acquisition through conservation easements is consistent with the 2007 WMP and will assist in full implementation of that plan.		
<b>Purchase Property</b>	500,000	5,000
Continued land purchases are consistent with the 2007 WMP recommendations and will assist in the full implementation of the plan.		
<b>Replace Zero Turn Mower</b>	16,000	
Replace mower due to age and maintenance costs.		
<b>Restore Hydrologic Flow - USACE Sec. 206 Project - Job No. 08280</b>	350,000	
Restore hydrologic flow of the Maumelle River at the former WGF to historic, pre-farmed conditions.		
<b>INFORMATION SERVICES</b>		
<b>Assess Cloud Readiness Plan</b>	25,000	
Information Technology Master Plan (ITMP) - Cloud readiness assessment.		
<b>Install Cityworks Enhancements</b>	30,000	
ITMP - Redlining and GIS editing tools.		

## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>Purchase Document Management System</b> Increase effectiveness, efficiency, and security of document management.	25,000	89,764
<b>Purchase ESRI Tools Enhancements</b> Supports business needs related to spatial analysis and various business processes.	25,000	
<b>Purchase Next Gen Itron Handheld Meter Readers</b> Replace outdated handheld mobile devices.	30,000	
<b>Purchase Operational Data Management and Reporting - Compliance and Analysis</b> Improve effectiveness and efficiency through the adoption of processes and tools for management of water operations data.	30,000	
<b>Purchase Time &amp; Attendance System / Human Resource Initiative</b> Purchase time and attendance system.	200,000	(20,161)
<b>Re-Cable Clearwater</b> Upgrade to high speed cable and relocate wiring hub.	25,000	
<b>Replace and Upgrade Network Switches 10 Gb</b> Provides higher speeds to support data recovery and Cayenta requirements.	125,000	
<b>Replace Customer Information System - Job No. 08288</b> Replace current billing system with ITMP recommendation.	2,387,620	314,108
<b>SQL Licenses - Active Replication</b> The SQL licenses will be used for a replication server at Clearwater to support SQL data replication.	50,000	
<b>Upgrade Enquesta Billing Serve/Storage Area Networks</b> Upgrade the server to help ensure uninterrupted operation.	33,510	
<b>Upgrade Financial Management Software</b> Upgrade required due to support services ending.	40,000	
<b>Upgrade Supervisory Control and Data Acquisition System (SCADA) System Management/Security</b> Manages threat detection, managed monitoring, and response platform by leveraging cyber threat intelligence.	60,000	
<b>ENGINEERING</b>		
<b>Developer-Funded Capital</b> Developer-contributed capital improvements to CAW water system as a result of new developments in the CAW service area.	2,500,000	
<b>Developer Participation - New Mains</b> Extend and/or upsize new mains by CAW in cooperation with developer new water main installation; provides for future extensions and growth.	100,000	

## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>Facility Improvements</b>	50,000	
Beautification of certain CAW facilities.		
<b>Improve Booster Pump Station No. 11</b>	330,000	
Construct building, pump, and electrical improvements and rehabilitation on Pump Station No. 11 to extend its service life.		
<b>Improve Lake Winona Spillway</b>	500,000	
Improve condition of concrete on weir, spillway walls and apron, & seal joints.		
<b>Improve Ozark Point Plant - Phase 2 Construction - Project No. 4687 - Job No. 07516B</b>	13,750,000	
Construction improvements to Ozark Point Plant to increase functional life, efficiency, & effectiveness of the plant.		
<b>Improve Ozark Point Plant - Phase 2 Construction Phase Engineering Services - Project No. 4687 - Job No. 07516</b>	428,335	
Rehabilitate and improve Ozark Point Plant to increase functional life, efficiency, & effectiveness of the plant.		
<b>Install 24-inch Transmission Main - N. Locust Street/Pump Station No. 23 - North Little Rock</b>	2,000,000	
Install 7,000 linear feet of 24-inch main to improve the flow to Tank No. 23 and to serve as a redundant supply line for an existing 20-inch main.		
<b>Install 8-inch Water Main - Joslin Road/Oak Grove Looping</b>	225,000	
Provides a loop to a dead-end water main to reduce frequent leaks and breaks resulting in loss of service.		
<b>Install 8-inch Water Main Across I-40 at Harris Road</b>	250,000	
Install 860 linear feet of a new 8-inch water main under I-40 at Harris Road for looping and improved hydraulics, water age, and compliance issues north of I-40.		
<b>Participation - West Pulaski Water Authority - Burlingame/Kanis Road</b>	200,000	
Participation with West Pulaski Water Authority for the construction of new water mains.		
<b>Professional Services - Engineering</b>	5,000	
Professional design and consultation as required on various projects.		
<b>Professional Services - Land Surveying</b>	5,000	
Professional land surveying required for the acquisition of new land, easements, & maintenance of property rights on existing land & easement holdings.		
<b>Professional Services - Property Appraisals</b>	5,000	
Professional appraisal services required for the acquisition of new land and easements.		
<b>Purchase GPS Units</b>	9,000	
Purchase of GPS units for Engineering Department.		
<b>Relocate 12/8-inch Water Mains - Counts Massie/Crystal Hill Road - Project No. 4037 - Job No. 07360</b>	450,000	
Relocate 4,145 feet of 8-inch and 12-inch water mains for the widening of Counts Massie & Crystal Hill Roads; City of Maumelle street improvements.		

## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>Relocate 16-inch Transmission Main - Capitol Drain/Gill Street Bridge - Phase 2 - Project No. 4922</b> Relocate approximately 1,200 linear feet of a 16-inch main attached to N. Cantrell Road bridge due to City & ARDOT Gill Street bridge reconstructions.	350,000	
<b>Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 1 - Job No. 08335</b> Payment No. 1 for the relocation of the existing 24-inch transmission main from the old to new I-30 Arkansas River bridge.	330,000	
<b>Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 2 - Job No. 08335</b> Payment No. 2 for the relocation of the existing 24-inch transmission main from the old to new I-30 Arkansas River bridge.	1,550,000	
<b>Relocate 30/16/12/8-inch Water Mains - Cantrell Rd/AR Highway 10/Rodney Parham Road - Phase 1</b> Relocate 30/16/12/8-inch water mains in conflict with proposed ARDOT improvements along Hwy 10/Cantrell Rd/Rodney Parham Road - Phase 1.	1,000,000	
<b>Relocate Water Mains - Camp Robinson Rd (AR Highway 176) at 54th Street - Project No. 4743</b> Relocate 12/8/3-inch water mains along Camp Robinson Rd (Ark Hwy 176) in conflict with proposed ARDOT improvements.	280,000	
<b>Relocate Water Mains - Chicot Road Improvements - LR</b> Relocate water mains along portion of Chicot Road due to street and drainage improvements initiated by the City of Little Rock.	400,000	
<b>Relocate Water Mains - Gamble Road Improvements - LR</b> Relocate water mains along portion of Gamble Road due to street and drainage improvements initiated by the City of Little Rock.	200,000	
<b>Relocate Water Mains - Interstate 30 Widening - Various Locations</b> Relocate 24/20/12/8-inch water mains due to the widening of I-30 by ARDOT.	150,000	
<b>Relocate Water Mains - Kanis Road Improvements - LR - Phase 3</b> Relocate water mains along portion of Kanis Road (Bowman/Gamble) due to street and drainage improvements initiated by the City of Little Rock.	350,000	
<b>Relocate Water Mains - Kanis Road Improvements - LR - Phase 4</b> Relocate water mains along portion of Kanis Road (Bowman/Gamble) due to street & drainage improvements initiated by the City of Little Rock.	50,000	
<b>Relocate Water Mains - Mabelvale Pike Improvements - LR</b> Relocation of water mains along portion of Mabelvale Pike due street and drainage improvements initiated by the City of Little Rock.	400,000	
<b>Relocate Water Mains - Rodney Parham Road Improvements - LR</b> Relocate water mains along portion of Rodney Parham Road due to street and drainage improvements initiated by the City of Little Rock.	500,000	
<b>Relocate Water Mains - Various Known/Unknown Locations - State/County/City Improvements</b> Relocate water mains for known and unknown road and drainage improvements (city/county/state improvements).	400,000	
<b>Replace Vehicle (Truck 414)</b> Replace truck due to excessive mileage and maintenance costs.	27,000	
<b>Replace Water Mains - Aging Galvanized, Asbestos-Cement, Cast Iron - System-wide</b> Replace old, high-maintenance galvanized, asbestos-cement, & cast iron pipe experiencing numerous leaks and breaks.	3,169,000	



## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>WATER PRODUCTION</b>		
<b>Evaluate Wilson Infrastructure Filters and Basins</b>	450,000	
Conduct a study and receive a Preliminary Engineering Report (PER) on condition of Wilson basins and filters for budgeting rehab in the coming years.		
<b>Implement Tank Management System</b>	50,000	
Ensure water quality in tanks is maintained.		
<b>Purchase Microwave Digestion System</b>	30,000	
Reduces the time to digest samples for metals.		
<b>Purchase On-Line Zeta Potential Meter Wilson Plant</b>	82,000	
Adjusts coagulant and lime for optimal settling in basins which will likely result in reduced sludge generation and cost savings.		
<b>Purchase Sampling Stations</b>	15,000	
Sampling stations are a continuation of a multi-year project to replace sub-standard compliance sampling locations in the distribution system.		
<b>Purchase Side by Side Utility Vehicle</b>	15,000	
Side by side prevents road damage, provides accessibility to remote areas, and the capability to easily transport tools.		
<b>Purchase Two Wilson Filter Smart Backwash Instrument</b>	7,000	
Purchase filters to ensure proper backwash expansion rate and duration are used to optimize backwash and filter performance.		
<b>Purchase Type 1 Laboratory Water System</b>	15,000	
Supplemental system to supply sufficient reagent grade laboratory water to perform analysis.		
<b>Rebuild Pump 1 Lake Maumelle</b>	400,000	
Rebuild aged pump that is past its service life.		
<b>Rebuild Pump 3 Lake Maumelle</b>	225,000	
Rebuild aged pump that is past its service life.		
<b>Rebuild Pump 4 Lake Maumelle</b>	225,000	
Rebuild aged pump that is past its service life.		
<b>Replace 7 CL-17's, On-Line Monitors of Chlorine Residuals-Wilson and Ozark</b>	45,000	
Replace aged units requiring frequent maintenance to properly maintain.		
<b>Replace Fence Jackson Reservoir</b>	75,000	
Fence is over 25 years old and in need of repair.		
<b>Replace SCADA System Programmable Logic Controllers</b>	150,000	
Replace PLCs due to support services ending in 2021.		

## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>Replace Switchgear Programmable Logic Controllers Wilson Plant</b> Replace PLCs due to support services ending in 2021.	145,000	
<b>Replace Switchgear Programmable Logic Controllers Lake Maumelle Pump Station</b> Replace PLCs due to support services ending in 2021.	145,000	
<b>Replace Two Wilson Effluent Filter Valve Actuators</b> Purchase two actuators to test functionality in preparation for upcoming Wilson Plant rehabilitation.	30,000	
<b>Secure SCADA Network</b> Provide security on SCADA side of firewall due to removing air gap from SCADA system.	50,000	
<b>DISTRIBUTION</b>		
<b>Arc Flash Hazard Analysis - Job No. 08275</b> Study and remove arc flash hazards.	60,000	
<b>Install and Replace Hydrants</b> Install and replace hydrants to maintain fire protection levels and water quality by means of flushing.	125,000	
<b>Install Hydrants - Maumelle</b> Install hydrants for Maumelle to maintain fire protection levels and water quality by means of flushing.	6,250	
<b>Install Mains - Maumelle</b> Install capital mains within the distribution system in Maumelle.	10,000	
<b>Install Meters - Maumelle</b> Install meters for new services requested for new construction and infrastructure additions in Maumelle.	7,500	
<b>Install Meters for New Services</b> Install meters for new services requested for new construction and infrastructure additions.	130,000	
<b>Install Overhead Fans - Clearwater</b> Partner with LRWRA to purchase overhead fans to help cool the fleet maintenance shop.	25,000	
<b>Install Valves</b> Install and replace valves within the distribution system.	50,000	
<b>Install Valves - Maumelle</b> Install and replace valves within the distribution system in Maumelle.	8,000	

## CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>Install, Replace, and Relocate Mains</b>	160,000	
Install, replace, and relocate mains. Work is performed by CAW distribution crews.		
<b>Install, Replace, and Transfer Services - Maumelle</b>	230,000	
Install, replace, and transfer Maumelle services relating to new and existing jobs.		
<b>Purchase 1.5 Ton Service Truck</b>	56,000	
Replace truck due to excessive mileage and maintenance costs.		
<b>Purchase Advanced Valve Technology EZ Valve</b>	115,000	
Purchase valve to allow start up of Insert-able Valve Service and to generate revenue		
<b>Purchase Setflow 100c Cellular Remote Smart Valve</b>	10,000	
Purchase a new cellular shut-off valve to pilot on accounts with frequent touch points for theft of water or non-payment.		
<b>Purchase/Install Meters - Change Out Program</b>	600,000	
Purchase and install meters in service for 16 years or longer thereby enhancing water metering by removing slow meters that impact revenues.		
<b>Purchase/Install Services (New, Replace, Transfer)</b>	1,300,000	
Install, replace, and transfer services relating to new and existing jobs.		
<b>Replace 1/2 Ton Truck(s) (5 trucks - 494, 460, 508, 504, 503)</b>	114,000	
Replace five trucks due to excessive mileage and maintenance costs.		
<b>Replace 2 Ton Dump Truck(s) (2 trucks - 470, 469)</b>	180,000	
Replace two trucks due to excessive mileage and maintenance costs.		
<b>Replace 3 Ton Dump Truck (531) - Maumelle</b>	99,500	
Replace truck due to excessive mileage and maintenance costs.		
<b>Replace 3/4 Ton Service Truck (521) - Maumelle</b>	35,000	
Replace truck due to excessive mileage and maintenance costs.		
<b>Replace 3/4 Ton Service Truck(s) (3 trucks - 496, 492, 493)</b>	106,500	
Replace three trucks due to excessive mileage and maintenance costs.		
<b>Replace Air Piercing Tool</b>	16,000	
Replace non-serviceable air piercing tool used for trenchless installation of services.		

**CAPITAL IMPROVEMENT PLAN - 2020 JUSTIFICATIONS**

DESCRIPTION AND JUSTIFICATION	COST	2020 O&M IMPACT
<b>Replace One Ton Van</b> Replace one ton van due to excessive mileage and maintenance cost.	40,000	
<b>Replace One Ton Van (424)</b> Replace one ton van due to excessive mileage and maintenance cost.	40,000	
<b>Replace Variable Frequency Drives &amp; Check Valve Pump 1 Station 22</b> Replace to maintain constant pressure and prevent interruptions of service.	40,000	
<b>Replace Wilson Filter Controls Solenoid Valve</b> Replace due to age and excessive maintenance costs.	96,000	
<b>Replace Wye Mountain Calcium Hypo Feeder Station 19</b> Replace due to age, excessive maintenance costs, and non-availability of replacement parts.	7,000	
<b>Upgrade RSLogix Software</b> Required to support software due to upgrade of Windows operating system.	6,000	

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**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

*Projects in blue are partially funded by additional funds from the Rate Stabilization Fund.*

DESCRIPTION	2020	2021	2022	2023	2024
<b>ADMINISTRATION</b>					
Aerial Photography of Watershed - Lake Maumelle	10,000	10,000	10,000	10,000	10,000
Forest Restoration and Enhancement - Job No. 07554	25,000	25,000	25,000	25,000	25,000
Improve Forest Roads and Access - Job No. 07390	50,000	50,000	50,000	50,000	
Improve Wilson Classroom Space - Job No. 08370	200,000				50,000
Install Security System Improvements	20,000	36,000	20,000	20,000	20,000
Install Solar Arrays to Reduce Energy Costs	9,000,000				
Purchase Backpack Electrofisher	10,000				
Purchase Conservation Easements	200,000	200,000	200,000	200,000	200,000
Purchase Property	500,000	500,000	500,000	500,000	500,000
Replace Zero Turn Mower	16,000				
Restore Hydrologic Flow - USACE Sec. 206 Project - Job No. 08280	350,000				
Restore River, Floodplain and Wetland - Winrock Grass Farm		100,000	100,000	100,000	
<b>TOTAL</b>	<b>\$10,381,000</b>	<b>\$921,000</b>	<b>\$905,000</b>	<b>\$905,000</b>	<b>\$805,000</b>

**INFORMATION SERVICES**

Assess Cloud Readiness Plan	25,000				
Capital Project Planning & Project Management Application			215,000		
Conduct Network PIN Test		15,000			
Implement GIS Programming for Outage Notification		40,000			
Install Cityworks Enhancements	30,000				

**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Install Data Storage Protection			50,000		
Perform Information Technology Risk Management Assessment			50,000		
Purchase Billing Printer			48,000		
Purchase Cityworks Cloud				50,000	50,000
Purchase Document Management System (DMS)	25,000	275,000	150,000	150,000	
Purchase ESRI Tools Enhancements	25,000				
Purchase Next Gen Itron Handheld Meter Readers	30,000				
Purchase Operational Data Management and Reporting - Compliance and Analysis	30,000				
Purchase Time & Attendance System / Human Resource Initiative	200,000				
Purchasing Enhancements			70,000		
Re-Cable Clearwater	25,000				
Re-implement integration with BI360			40,000		
Replace and Upgrade Network Switches 10 GB	125,000				
Replace Customer Information System - Job No. 08288	2,387,620	250,000			
Replace GIS Field Data Collector Vehicle		25,000			
Replace GPS Equipment		30,000			
Replace Large Format Scan/Print/Copy Machine			25,000		
Replace Network Firewalls			30,000		
Replace SCADA Switches		35,000	35,000		
Replace Server UPS units			20,000		
Replace Servers (Clearwater, Maryland, Wilson Plant)		20,000	20,000	20,000	20,000
Replace Wireless Access Points			35,000		
SQL Licenses - Active Replication	50,000				
Upgrade Enquesta Billing Serve/Storage Area Networks	33,510				
Upgrade Financial Management Software	40,000				

**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Upgrade Microsoft Dynamics Finance and Operations System				600,000	
Upgrade Phone System			45,000		
Upgrade Phone System - Lake Maumelle				60,000	60,000
Upgrade SCADA System Management/Security	60,000				
<b>TOTAL</b>	<b>\$3,086,130</b>	<b>\$690,000</b>	<b>\$833,000</b>	<b>\$880,000</b>	<b>\$130,000</b>
<b>CUSTOMER SERVICE</b>					
Replace Meter Reader Truck	—	22,000	—	—	22,000
<b>TOTAL</b>	<b>\$—</b>	<b>\$22,000</b>	<b>\$—</b>	<b>\$—</b>	<b>\$22,000</b>
<b>ENGINEERING</b>					
Construct Booster Pump Station No. 17B - Highland Ridge		600,000			
Developer-Funded Capital	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Developer Participation - New Mains	100,000	150,000	150,000	150,000	150,000
Facility Improvements	50,000	50,000	50,000	50,000	50,000
Improve Booster Pump Station No. 11	330,000				
Improve Booster Pump Station No. 22 - Crystal Hill					500,000
Improve Lake Winona Spillway	500,000				
Improve Ozark Point Plant - Phase 1 Construction - Clearwell Baffles & Paint - Job No. 07516A		500,000	2,240,000		
Improve Ozark Point Plant - Phase 2 Construction - Project No. 4687 - Job No. 07516B	13,750,000	10,480,000			

**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Improve Ozark Point Plant - Phase 2 Construction Phase Engineering Services - Project No. 4687 - Job No. 07516	428,335	377,274			
Improve Pump Station No. 1A - Phase 2 Construction - Wilson Plant - Job No. 07515			1,500,000	1,500,000	
Improve Raw Water Pump Station No. 12 - Jackson Reservoir				1,300,000	
Improve/Rehab Wilson Plant					15,000,000
Inspection of Arkansas River Transmission Crossings			50,000		
Install 12-inch Water Main - Morgan/North Little Rock Intermediate Pressure Zone Looping		650,000			
Install 24-inch Transmission Main - N. Locust Street/Pump Station No. 23 - North Little Rock	2,000,000				
Install 8-inch Water Main - Joslin Road/Oak Grove Looping	225,000				
Install 8-inch Water Main Across I-40 at Harris Road	250,000				
Install Master Plan Distribution Mains - Various					250,000
Install Master Plan Transmission Mains - Various					1,000,000
Install Water Main - 12" - WM to WM Pressure Zone Interconnection Near Rahling Road		250,000			
Paint/Improve Ground Storage Tank No. 30B - Maumelle		300,000	300,000		
Participation - West Pulaski Water Authority - Burlingame/Kanis Rd	200,000	2,000,000			
Professional Services - Engineering	5,000	5,000	5,000	5,000	5,000
Professional Services - Land Surveying	5,000	5,000	5,000	5,000	5,000
Professional Services - Property Appraisals	5,000	5,000	5,000	5,000	5,000
Purchase GPS Units	9,000	10,000	10,000	10,000	10,000
Refurbish PS 29 By-Pass of PS 25 & Tank 25 including New Pumps & VFD in PS 29 and Line Work at PS 25		225,000			
Relocate 12/8-inch Water Mains - Counts Massie/Crystal Hill Road - Project No. 4037 - Job No. 07360	450,000				
Relocate 16-inch Transmission Main - Capitol Drain/Gill Street Bridge - Phase 2 - Project No. 4922	350,000				



**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Relocate 16/12/8-inch Water Mains - Cantrell Road/AR Highway 10/Rodney Parham Rd - Phase 2		500,000			
Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 1 - Job No. 08335	330,000				
Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 2 - Job No. 08335	1,550,000				
Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 3 - Job No. 08335			805,000		
Relocate 30/16/12/8-inch Water Mains - Cantrell Road/AR Highway 10/Rodney Parham Road - Phase 1	1,000,000				
Relocate Water Mains - Bowman Road Improvements - LR		250,000			
Relocate Water Mains - Camp Robinson Road (AR Highway 176) at 54th St - Project No. 4743	280,000				
Relocate Water Mains - Chicot Road Improvements - LR	400,000				
Relocate Water Mains - Gamble Road Improvements - LR	200,000				
Relocate Water Mains - Interstate 30 Widening - Various Locations	150,000	300,000	150,000		
Relocate Water Mains - Kanis Road Improvements - LR - Phase 3	350,000				
Relocate Water Mains - Kanis Road Improvements - LR - Phase 4	50,000				
Relocate Water Mains - Mabelvale Pike Improvements - LR	400,000				
Relocate Water Mains - Rodney Parham Road Improvements - LR	500,000				
Relocate Water Mains - Various Known/Unknown Locations - State/County/City Improvements	400,000	300,000	300,000	300,000	300,000
Repair Lake Winona Storm Drains			75,000		
Replace Building Roofs - Lake Winona			20,000		
Replace Vehicle - Engineering Dept.	27,000	28,000	28,000	29,000	30,000
Replace Water Mains - Aging Galvanized, Asbestos-Cement, Cast Iron - System-wide	3,169,000	4,049,000	4,027,000	3,758,000	4,710,500
<b>TOTAL</b>	<b>\$29,963,335</b>	<b>\$23,534,274</b>	<b>\$12,220,000</b>	<b>\$9,612,000</b>	<b>\$24,515,500</b>

**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
<b>WATER PRODUCTION</b>					
Coat East Pipe Gallery Piping Wilson Plant			350,000		
Dredge Lake Maumelle Intake Area			100,000		
Evaluate Wilson Infrastructure Filters and Basins	450,000				
Implement Tank Management System	50,000	50,000	50,000	50,000	50,000
Purchase & Install 3.25 Megawatt Generator Lake Maumelle		1,400,000			
Purchase Microwave Digestion System	30,000				
Purchase On-Line Zeta Potential Meter Wilson Plant	82,000				
Purchase Sampling Stations	15,000	15,000	15,000	15,000	15,000
Purchase Side by Side Utility Vehicle	15,000				
Purchase Two Wilson Filter Smart Backwash Instrument	7,000				
Purchase Type 1 Laboratory Water System	15,000				
Rebuild Pump 1 Lake Maumelle	400,000				
Rebuild Pump 3 Lake Maumelle	225,000				
Rebuild Pump 4 Lake Maumelle	225,000				
Renovate Wilson Plant Bathroom and Breakroom		80,000			
Replace 7 CL-17's, On-Line Monitors of Chlorine Residuals-Wilson and Ozark	45,000				
Replace Fence Jackson Reservoir	75,000	80,000	100,000	100,000	
Replace Four Watson Marlowe Chemical Feed Pumps		50,000			
Replace GC/MS					150,000
Replace Granular Activated Carbon Media (GAC) - Ozark Point Plant		300,000	300,000	300,000	300,000

**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Replace ICP/Mass Spec			150,000		
Replace On Line Raw Turbidimeter Ozark Point Plant		6,500			
Replace On Line Turbidimeters Ozark Point Plant		60,000			
Replace SCADA System Programmable Logic Controllers	150,000	150,000			
Replace Switchgear Programmable Logic Contorollers Wilson Plant	145,000				
Replace Switchgear Programmable Logic Controllers Lake Maumelle Pump Station	145,000				
Replace TOC Analyzer			100,000		
Replace Two Wilson Effluent Filter Valve Actuators	30,000				
Secure SCADA Network	50,000	50,000	50,000		
<b>TOTAL</b>	<b>\$2,154,000</b>	<b>\$2,241,500</b>	<b>\$1,215,000</b>	<b>\$465,000</b>	<b>\$515,000</b>

**DISTRIBUTION**

Arc Flash Hazard Analysis - Job No. 08275	60,000				
Capital Projects for Plants, Tanks, & Pump Stations		100,000	100,000	100,000	100,000
Expand Clearwater Warehouse				110,000	290,000
Expand Concrete Pavement Area at Clearwater Yard - Job No. 08268			70,000		
Install and Replace Hydrants	125,000	130,000	135,000	140,000	145,000
Install Hydrants - Maumelle	6,250	6,500	6,750	7,000	7,250
Install Mains - Maumelle	10,000	11,500	12,500	13,000	13,000
Install Meters - Maumelle	7,500	8,000	9,000	9,000	9,000
Install Meters for New Services	130,000	175,000	200,000	205,000	210,000
Install Overhead Fans - Clearwater	25,000				
Install Valves	50,000	52,500	55,000	57,500	60,000
Install Valves - Maumelle	8,000	9,000	10,000	10,000	10,000

## CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Install, Replace, and Relocate Mains	160,000	180,000	200,000	220,000	220,000
Install, Replace, and Transfer Services - Maumelle	230,000	235,000	240,000	245,000	250,000
Purchase Additional Horizontal Directional Drilling Machine			260,000		
Purchase Advanced Valve Technology EZ Valve	115,000				
Purchase Hydrant Tool - Impact Drive Hydrant Saver		11,000			
Purchase Setflow 100c Cellular Remote Smart Valve	10,000				
Purchase Tractor and Bush Hog for Easement Maint. (with Trailer)			50,000		
Purchase Vac-Tron Trailer		75,000			
Purchase/Install Meters - Change Out Program	600,000	620,000	640,000	660,000	680,000
Purchase/Install Services (New, Replace, Transfer)	1,300,000	1,320,000	1,340,000	1,360,000	1,380,000
Relocate Utility Lines inside Clearwater Warehouse (overhead hazard)		30,000			
Replace 1 Ton Service Truck (416)		51,000			
Replace 1.5 Ton Service Truck(s)	56,000	58,000			
Replace 1.5 Ton Service Truck (522 - crane truck) - Maumelle		58,000			
Replace 1/2 Ton Truck(s) (5 trucks - 494, 460, 508, 504, 503)	114,000	88,000	134,000	115,000	115,000
Replace 2 Ton Dump Truck(s) (2 trucks - 470, 469)	180,000	184,000	90,000	92,500	186,500
Replace 3 Ton Dump Truck					120,000
Replace 3 Ton Dump Truck (531) - Maumelle	99,500				
Replace 3/4 Ton Service Truck (521) - Maumelle	35,000				
Replace 3/4 Ton Service Truck(s) (3 trucks - 496, 492, 493)	106,500	173,500	175,000	112,000	112,000
Replace Air Piercing Tool	16,000	16,500	17,000	17,500	18,000
Replace Meter Test Bench for Meter Shop			—		200,000
Replace One Ton Van	40,000				
Replace One Ton Van(s) (424)	40,000	41,000	41,000	41,000	41,000
Replace Pumps in PS 16B			150,000		

**CAPITAL IMPROVEMENT PLAN - FIVE-YEAR PLAN**

*Projects in green are featured in the Projects Section on pages 117 - 160.*

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DESCRIPTION	2020	2021	2022	2023	2024
Replace Two Ton Crew Truck(s)			130,000	260,000	—
Replace Variable Frequency Drives & Check Valve Pump 1 Station 22	40,000				
Replace Wilson Filter Controls Solenoid Valve	96,000				
Replace Wye Mountain Calcium Hypo Feeder Station 19	7,000				
Restore Tank No. 2				350,000	350,000
Restore Tank No.17A		110,000	110,000		
Restore Tank No. 18				250,000	
Restore Tank No. 19C			75,000		
Restore Tank No. 22			425,000	377,500	
Upgrade RSLogix Software	6,000				
<b>TOTAL</b>	<b>\$3,672,750</b>	<b>\$3,743,500</b>	<b>\$4,675,250</b>	<b>\$4,752,000</b>	<b>\$4,516,750</b>
<b>GRAND TOTAL</b>	<b>\$49,257,215</b>	<b>\$31,152,274</b>	<b>\$19,848,250</b>	<b>\$16,614,000</b>	<b>\$30,504,250</b>

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# PROJECTS

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## Significant Project Detail

CAW seeks to proactively address infrastructure needs as part of the Utility's commitment to ensure that customers receive the best possible service. The following pages highlight and provide additional detail on projects that CAW management has deemed both operationally and financially significant to the Utility over the next five years.

Each of these projects has an anticipated capital investment of \$500,000 or greater over the five-year capital planning period of 2020 through 2024. The following project details contain a brief project purpose statement, descriptive pictures, anticipated project duration, estimated costs, funding source(s), and future impact on utility operations, as indicated by General Ledger (G/L) account.





**Project Name:** Install Solar Arrays to Reduce Energy Costs  
**Department:** Administration  
**Focus Area:** Cost Savings and Sustainability  
**Location:** Off-site Location



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Thad Luther	January 2020	12 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
ANRC SOLAR	9,000,000	—	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
Utility	(140,200)	(569,200)	(577,600)	(586,200)	(595,000)
Repair and Maintenance	10,000	40,800	41,600	42,500	43,300

**PROJECT PURPOSE**

CAW is currently evaluating three options to reduce long-term energy costs by net-metering with solar generated power. Net-metering allows CAW to offset a portion of its electricity use with power purchased or generated off-site at a lower cost. All three options under consideration produce a positive cashflow the first year of operation. Two of the options under consideration involve leasing solar generating capacity and no capital investment. The third option is this project, in which CAW would construct and operate its own 5 MW DC solar power generating station. CAW will only proceed with this project if an acceptable lease arrangement or solar service agreement cannot be negotiated. In addition to an economic benefit, the environmental benefits of using renewable energy sources are well documented.

**Project Name:** Purchase Conservation Easements  
**Department:** Administration  
**Focus Area:** Watershed Protection  
**Location:** Multiple Locations



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Randy Easley	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
WPF	200,000	200,000	200,000	200,000	200,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
Land Management	5,000	7,500	10,000	12,500	15,000

**PROJECT PURPOSE**

Conservation easements are voluntary, legally binding agreements that limit certain types of land uses and developments in perpetuity. Conservation easements benefit the public and the environment while keeping land in private hands.

A conservation easement's purpose will vary depending on the character of the particular property, the goals of CAW, and the needs of the landowners. These purposes might include maintaining and improving water quality, perpetuating and fostering the growth of healthy forests, or ensuring lands are managed so that they are always available to benefit the sustainable use of the water supply.

**Project Name:** Purchase Property  
**Department:** Administration  
**Focus Area:** Watershed Protection  
**Location:** Multiple Locations



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Randy Easley	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
WPF	500,000	500,000	500,000	500,000	500,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
Land Management	5,000	7,500	10,000	12,500	15,000

**PROJECT PURPOSE**

Land purchases are essential to the protection and management of the CAW watersheds. CAW can best manage the source water from the watersheds of Lake Maumelle and Lake Winona by purchasing land and applying scientifically sound practices and strategies for land and water management and conservation.

Since 2007, CAW has purchased over 2,600 acres for watershed protection and improvement of water quality. The continuation of land purchases is consistent with recommendations of the 2007 WMP and will assist in the full implementation plan.

**Project Name:** Replace Vehicles  
**Department:** All  
**Focus Area:** Vehicles  
**Location:** James T. Harvey Administration Building and Clearwater



<b>Name:</b>
Various

<b>Est Start Date:</b>
January 2020

<b>Duration: (Months)</b>
Ongoing

**Capital Costs**

Source	2019	2020	2021	2022	2023
RATES	698,000	728,500	598,000	649,500	886,500

**O&M Impact**

G/L	2019	2020	2021	2022	2023
	—	—	—	—	—

**PROJECT PURPOSE**

The Utility utilizes a fleet management plan as the primary guide to CAW's fleet management decisions. Truck replacements are determined based on chronic repair needs and projected mileage. Vehicle age also factors into replacement but is a secondary factor behind repair needs and mileage. Current fleet management guidelines dictate that a vehicle should be replaced when it reaches 100,000 miles or when chronic repair needs dictate replacement.

### Detail of Vehicle Replacements

		2020	2021	2022	2023	2024
Customer Service	Replace Meter Reader Truck(s)	—	22,000	—	—	22,000
Distribution	Replace 1 Ton Service Truck (416)	—	51,000	—	—	—
Distribution	Replace 1.5 Ton Service Truck(s)	56,000	58,000	—	—	—
Distribution	Replace 1.5 Ton Service Truck (522 - crane truck) - Maumelle	—	58,000	—	—	—
Distribution	Replace 1/2 Ton Truck(s) (5 trucks - 494, 460, 508, 504, 503)	114,000	88,000	134,000	115,000	115,000
Distribution	Replace 2 Ton Dump Truck(s) (2 trucks - 470, 469)	180,000	184,000	90,000	92,500	186,500
Distribution	Replace 3 Ton Dump Truck	—	—	—	—	120,000
Distribution	Replace 3 Ton Dump Truck (531) - Maumelle	99,500	—	—	—	—
Distribution	Replace 3/4 Ton Service Truck (521) - Maumelle	35,000	—	—	—	—
Distribution	Replace 3/4 Ton Service Truck(s) (3 trucks - 496, 492, 493)	106,500	173,500	175,000	112,000	112,000
Distribution	Replace One Ton Van	40,000	—	—	—	—
Distribution	Replace One Ton Van(s) (424)	40,000	41,000	41,000	41,000	41,000
Distribution	Replace Two Ton Crew Truck(s)	—	—	130,000	260,000	—
Engineering	Replace Vehicle - Engineering Dept.	27,000	28,000	28,000	29,000	30,000
Information Services	Replace GIS Field Data Collector Vehicle	—	25,000	—	—	—
<b>Totals</b>		<b>\$ 698,000</b>	<b>\$ 728,500</b>	<b>\$ 598,000</b>	<b>\$ 649,500</b>	<b>\$ 626,500</b>

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**Project Name:** Purchase Document Management System (DMS)  
**Department:** Information Services  
**Focus Area:** CAW  
**Location:** CAW System



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Allen Vincent	January 2020	48 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	25,000	275,000	150,000	150,000	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
Labor and Benefits	89,764	92,457	95,231	98,088	101,030
Software Maintenance	—	75,000	75,000	75,000	75,000

**PROJECT PURPOSE**

In late 2017, CAW contracted with RIMtech Consulting to conduct an assessment of the Utility's recordkeeping environment. Deliverables from this assessment will include a draft records retention schedule as well as a recommendation on the type of DMS that would best fit the needs of the Utility.

There are many benefits that justify costs associated with document and content management practices, policies, and procedures, as well as the implementation and operation of a DMS, including:

- Reduced paper storage - Removal of paper by converting paper documents that are stored or in an archive into an electronic form.

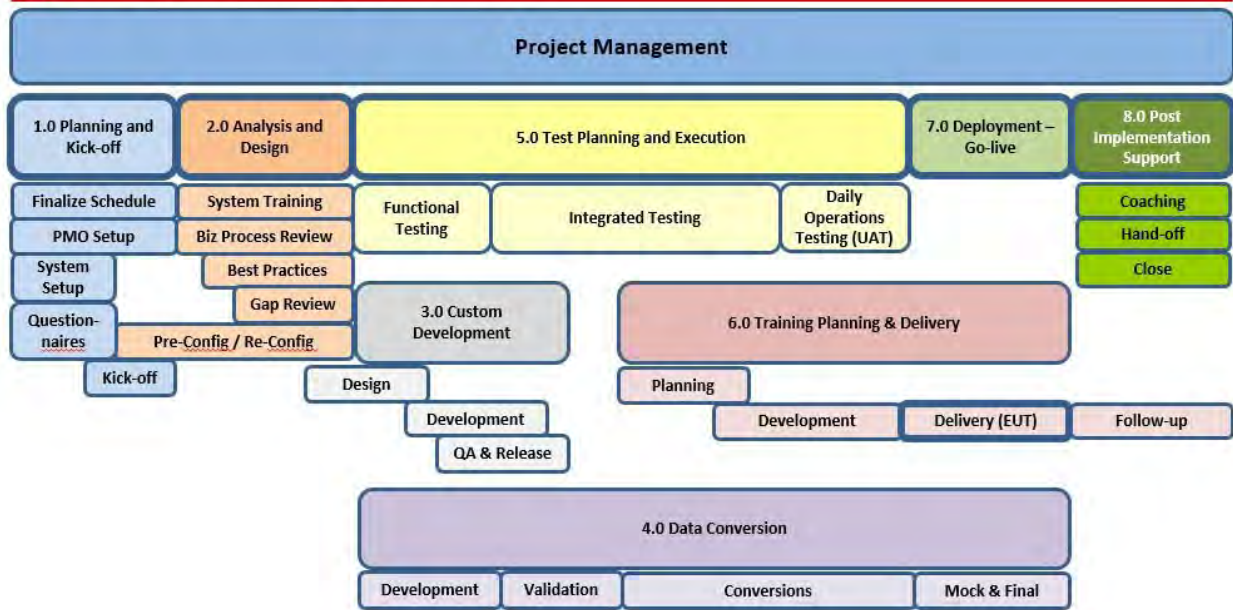
- Improved retrieval time - Obtaining paper from storage or an archive is slower than electronic retrieval of documentation. Along with the improved retrieval time comes the ability to perform searches for similar information. This is especially useful when trying to perform major changes or perhaps searching for information subject to litigation.
- Less paper, printer, and toner costs - Reduced need to print paper documents as electronic versions are available for use or reuse.
- Improved staff productivity - Less time spent searching for documents or trying to find the current version. Document review and approval cycles, particularly where multiple reviewers and approvers are involved in the business process, are faster than the current manual processes.
- Improved disaster recovery - The DMS can store critical documents in the event of significant disruption or disaster for the business.
- Improved security - A single secure location for documents to ensure that the right people can access the right documents.
- Improved compliance - Increased efficiency when completing and complying with State and Federal reporting requirements.

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**Project Name:** Replace Customer Information System - Job No. 08288  
**Department:** Information Services  
**Focus Area:** Customer Billing  
**Location:** CAW System



**Cayenta Implementation Methodology**



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Allen Vincent	January 2020	15 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
2018B BOND	816,130	—	—	—	—
RATES	1,571,490	250,000	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
Software Maintenance	314,108	(14,363)	(14,794)	(15,238)	(15,695)

**PROJECT PURPOSE**

CAW's current CIS has been in place for 20 years and has not kept up with trends in technology, the needs of the utility, or the expectations of the customers. As part of the 2017 ITMP, a comprehensive assessment of the Utility's current CIS situation was



conducted along with a comparison to currently available systems on the market. The current CIS does not deliver the service, information, or experience customers expect. Furthermore, the current system is not flexible, which results in vendor support to address most issues. Many of these issues require vendor professional service hours not included in the software support contract resulting in unplanned costs.

Months of preparation occurred in late 2017 and early 2018 to define system and stakeholder needs, develop requirements, and produce a request for proposal (RFP). After the release of the RFP, subsequent vendor submissions, and review of the RFP submissions, Cayenta was selected as CAW's new CIS vendor. The CIS project team, along with EMA, Inc., has worked with Cayenta staff on the implementation phase of the system, since the fourth quarter of 2018. This endeavor has progressed through 2019 and is scheduled for Go-Live in the third quarter of 2020.

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**Project Name:** Upgrade Microsoft Dynamics Finance and Operations System  
**Department:** Information Services  
**Focus Area:** Finance  
**Location:** James T. Harvey Administration Building



## Microsoft Dynamics 365 for Finance and Operations

FUNCTIONALITY OVERVIEW



**Name:**  
Allen Vincent

**Est Start Date:**  
April 2023

**Duration: (Months)**  
6 Months

### Capital Costs

Source	2020	2021	2022	2023	2024
RATES	—	—	—	600,000	—

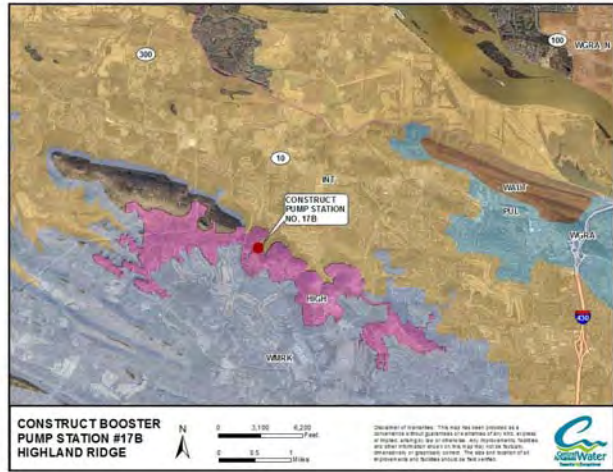
### O&M Impact

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

### PROJECT PURPOSE

Upgrading from the current version of Microsoft Dynamics GP to Dynamics 365 Finance and Operation Enterprise and implementing the Risk Management and Purchasing modules will be a major system functionality improvement for the Finance Department. Dynamics 365 is written on the latest Microsoft platform, and many of the new features for Accounts Payable, Accounts Receivable, Fixed Assets, General Ledger, and Budgeting are included in this upgrade. Currently, Budgeting is a separate component. Implementing Dynamics 365 will address many of the limitations and gaps of GP and eliminate the need for third-party add-ons.

<b>Project Name:</b>	Construct Booster Pump Station No. 17B - Highland Ridge
<b>Department:</b>	Engineering
<b>Focus Area:</b>	Pumps
<b>Location:</b>	Little Rock



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2021	10 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	600,000	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The Highland Ridge pressure system is currently served by two booster pumping stations, No. 17 and No. 16B, with a combined capacity to deliver 1.25 MGD into the pressure system. Pump Station No. 16B was temporarily modified to pump into Highland Ridge in 2005 due to a pumping capacity deficiency existing at that time. Demand continues to grow in the Highland Ridge system. As identified in the 2010 Master Plan, a new booster pump station needs to be constructed to serve the zone and meet growing consumption demand.

**Project Name:** Developer-Funded Capital  
**Department:** Engineering  
**Focus Area:** Mains  
**Location:** System-wide



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
DEV	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project consists of improvements made to the CAW distribution system by developers constructing new projects within the CAW service area. These improvements consist of distribution mains, valves, fire hydrants in new subdivisions, and distribution infrastructure to service large new commercial developments. All improvements are reviewed and approved by the CAW engineering staff, both in the planning phase and upon completion of construction, to ensure compliance with CAW design standards.

**Project Name:** Developer Participation - New Mains  
**Department:** Engineering  
**Focus Area:** Mains  
**Location:** System-wide



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	100,000	150,000	150,000	150,000	150,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

Consistent with CAW’s water main extension policies, developers/builders are required to design and install new water mains to CAW specifications and requirements. If CAW determines, upon engineering review of plans submitted by developers/builders, that a longer length, different route, or increased capacity is needed due to current or future CAW system needs, CAW may financially participate with the developer/builder to make these modifications. This project will fund participation in these types of water main improvements.

**Project Name:** Improve Booster Pump Station No. 22 - Crystal Hill  
**Department:** Engineering  
**Focus Area:** Pumps  
**Location:** North Little Rock - Crystal Hill Road



<b>Name:</b>
Jim Ferguson

<b>Est Start Date:</b>
January 2024

<b>Duration: (Months)</b>
9 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	—	—	—	500,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	(12,000)

**PROJECT PURPOSE**

This project consists of the replacement of the existing four pump units (pump and motor) currently located in the booster pump station. The units are approximately 45 years old. The units will be replaced with new, more efficient units. Electrical costs should be reduced with the installation of more efficient pumps and motors.

**Project Name:** Improve Lake Winona Spillway  
**Department:** Engineering  
**Focus Area:** Water Source  
**Location:** Lake Winona



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	July 2020	4 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	500,000	—	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

Originally constructed in 1939, or 80 years ago, Lake Winona serves as a valuable component of the surface water supply for Central Arkansas Water. Lake Winona provides approximately 30% of the annualized average daily flow to the system. This project will correct and repair 80 years of wear and tear damages to the Lake Winona Dam spillway. The spillway apron is constructed of poured-in-place concrete and serves to release excess water from the lake, protecting the dam from being overtopped and potentially structurally compromised. Broken and missing concrete and damaged expansion joints will be repaired as part of this project.

**Project Name:** Improve Ozark Point Plant - Phase 1 Construction - Clearwell Baffles & Paint - Job No. 07516A  
**Department:** Engineering  
**Focus Area:** Rehabilitation of Ozark Point Plant  
**Location:** Ozark Point Plant



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	October 2021	8 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
ANRC OZARK	—	500,000	2,240,000	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project consists of necessary construction activities to paint the interior and exterior of Clearwell No. 4, which is a 200-foot diameter, welded-steel, ground reservoir. The project will also include the removal and replacement of the malfunctioning internal baffles of Clearwell No. 3 and No. 4. The project will serve to increase the functional life, efficiency, and effectiveness of both clearwells. The need for this project was identified in the Ozark Point Plant Rehabilitation PER. Detailed engineering design of this work was completed in 2018.



**Project Name:** Improve Ozark Point Plant - Phase 2 Construction - Project No. 4687 - Job No. 07516B  
**Department:** Engineering  
**Focus Area:** Rehabilitation of Ozark Point Plant  
**Location:** Ozark Point Plant



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2020	13 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
ANRC OZARK	13,750,000	10,480,000	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project consists of the construction activities for the Phase 2 rehabilitation and improvements at the Ozark Point Plant that will increase functional life, efficiency, and effectiveness of the 80-year old plant. The detailed engineering and design for this project began in 2018 and concluded in early 2019. The work will consist of structural rehabilitation and improvements to the flocculation and sedimentation basins, filter/control/chemical building, filter pipe gallery, and the backwash/sludge/wastewater system. Building structural repairs and improvements, including installation of solar panels, will also be made. The Phase 2 construction work was bid in mid-2019 with construction commencing in August 2019.

**Project Name:** Improve Ozark Point Plant - Phase 2 Construction  
Phase Engineering Services - Project No. 4687 - Job No. 07516

**Department:** Engineering

**Focus Area:** Rehabilitation of Ozark Point Plant

**Location:** Ozark Point Plant



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2020	13 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
ANRC OZARK	428,335	377,274	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project consists of the construction activities for the Phase 2 rehabilitation and improvements at the Ozark Point Plant that will increase functional life, efficiency, and effectiveness of the 80-year old plant. The detailed engineering and design for this project began in 2018 and concluded in early 2019. The work will consist of structural rehabilitation and improvements to the flocculation and sedimentation basins, filter/control/chemical building, filter pipe gallery, and the backwash/sludge/wastewater system. Building structural repairs and improvements, including installation of solar panels, will also be made. The Phase 2 construction work was bid in mid-2019 with construction commencing in August 2019. This budget item includes the engineering services provided through the construction phase of the project.

**Project Name:** Improve Pump Station No. 1A - Phase 2 Construction - Wilson Plant - Job No. 07515  
**Department:** Engineering  
**Focus Area:** Pumping System  
**Location:** Wilson Plant



<b>Name:</b>
Jim Ferguson

<b>Est Start Date:</b>
January 2022

<b>Duration: (Months)</b>
18 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
ANRC WILSON	—	—	1,500,000	1,500,000	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project consists of the construction of Phase 2 of the recommended pump, structure, and electrical improvements to the existing Wilson Plant Pump Station No. 1A. The improvement project was designed in 2016/2017. The improvement project has been split into two phases for sequencing and funding purposes. The new pumps and motors can only be installed during the low demand winter months of any year, and only one half of the pumping units can be taken out of service at any time. Therefore, this project must be performed in two phases. One half of the pumping units will be replaced in Phase 1, and the remaining pumping units will be replaced in Phase 2. A Preliminary Engineering Report was completed in 2015 that detailed needed improvements for Pump Station No. 1A, the original pump station located at the Wilson Plant. This pump station is the primary station

pumping into the Little Rock Intermediate and the Pulaski Heights pressure systems. Originally constructed in 1964, the station is capable of delivering 57 MGD into the Intermediate system through five pumps and 17 MGD into the Pulaski Heights system through five pumps. Items to be replaced and/or improved include the pumping units, motors, motor starters, other electrical components, control equipment, and building integrity. The station also has a suction cavitation problem that will be addressed. Phase 1 was bid and awarded in late 2017. Phase 1 construction began in 2018 and was completed in early 2019. Funding for Phase 2 is anticipated to begin in 2022 and progress through 2023.

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**Project Name:** Improve Raw Water Pump Station No. 12 - Jackson Reservoir  
**Department:** Engineering  
**Focus Area:** Pumps  
**Location:** Jackson Reservoir - Little Rock



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2023	10 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	—	—	1,300,000	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project will improve the Raw Water Pumping Station No. 12 located at Jackson Reservoir. The project will include the replacement of the three existing pumping units (pump and motors) with new efficient units and the relocation of the electrical switchgear from underground to an above ground location (new power control building). This work will ensure the best and continued operation of this vitally important component of the raw water transmission system.

**Project Name:** Improve/Rehab Wilson Plant  
**Department:** Engineering  
**Focus Area:** Water Treatment Plant  
**Location:** Wilson Plant



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	January 2024	24 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
2018B BOND	—	—	—	—	15,000,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

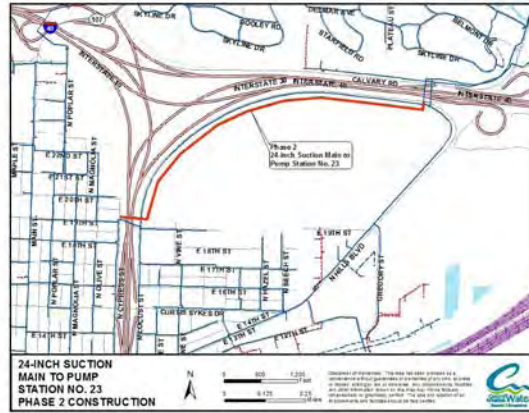
This project will consist of the design and construction of improvements to rehabilitate the Wilson Plant to increase its functional life, efficiency, and effectiveness. The Wilson Plant is approaching 60 years old. A detailed engineering report will be commissioned to examine the plant and recommend improvements and rehabilitation.

**Project Name:** Install 24-inch Transmission Main - N. Locust Street/  
Pump Station No. 23 - North Little Rock

**Department:** Engineering

**Focus Area:** Mains

**Location:** North Little Rock



**Name:**  
Jim Ferguson

**Est Start Date:**  
January 2020

**Duration: (Months)**  
12 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
2018B BOND	2,000,000	—	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	*	*	*	*	*

\*While this project will reduce maintenance costs of repairing leaks and breaks, this amount is not easily quantifiable due to the unique circumstances surrounding each leak and break situation.

**PROJECT PURPOSE**

This project will construct approximately 7,000 linear feet of 24-inch water transmission main to provide additional flow and redundant capacity to the No. 23 tank and booster pump station located at Montgomery Point in North Little Rock. This project would be the second and last phase of construction of the redundant transmission main that extends from downtown North Little Rock to Montgomery Point. The existing 20-inch transmission main to the tank and pump station is 54 years old and is the subject of frequent leaks and shutdowns resulting in loss of service.

**Project Name:** Install Master Plan Transmission Mains - Various  
**Department:** Engineering  
**Focus Area:** Mains  
**Location:** System-wide



<b>Name:</b>
Jim Ferguson

<b>Est Start Date:</b>
January 2024

<b>Duration: (Months)</b>
Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	—	—	—	1,000,000

**O&M Impact**

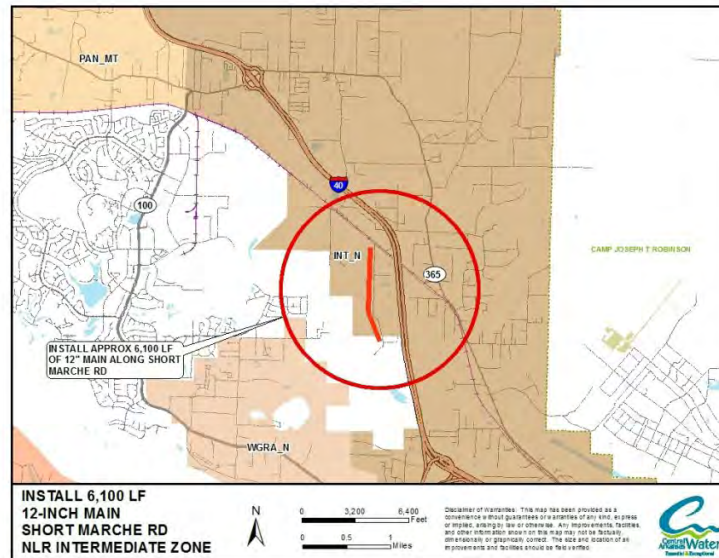
G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

Installation of various sized transmission water mains as per recommendations from the CAW Utility Master Plan.



**Project Name:** Install 12-inch Water Main - Morgan/North Little Rock Intermediate Pressure Zone Looping  
**Department:** Engineering  
**Focus Area:** Mains  
**Location:** North Little Rock/Pulaski County



**Name:**  
Jim Ferguson

**Est Start Date:**  
April 2021

**Duration: (Months)**  
9 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
2018B BOND	—	650,000	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project will construct approximately 6,100 feet of 12-inch water main from the Maumelle Transmission Main to the Morgan area to improve flows and pressures. In conjunction with a transmission main already completed along White Oak Crossing, this project will alleviate problem areas in the Morgan area of the CAW service system.

**Project Name:** Paint/Improve Ground Storage Tank No. 30B -  
Maumelle  
**Department:** Engineering  
**Focus Area:** Tanks  
**Location:** Maumelle



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Jim Ferguson	October 2021	6 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	300,000	300,000	—	—

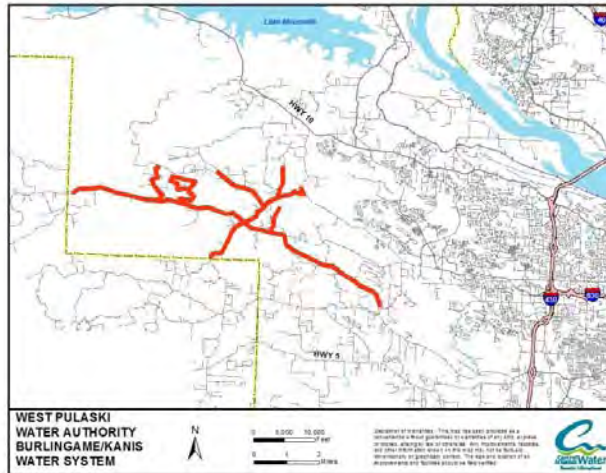
**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project consists of improvements to Tank No. 30B located in Maumelle. As part of the CAW/MWM merger agreement, the interior and exterior of the tank are to be painted. Funding for the tank painting is being derived from the Maumelle surcharge fund.

**Project Name:** Participation - West Pulaski Water Authority - Burlingame/Kanis Rd  
**Department:** Engineering  
**Focus Area:** System Expansion - Mains  
**Location:** System-wide



<b>Name:</b>
Jim Ferguson

<b>Est Start Date:</b>
July 2020

<b>Duration: (Months)</b>
18 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
ANRC WILSON	200,000	2,000,000	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project will consist of CAW participation of up to \$2,200,000 for a system expansion in the Burlingame Rd/Kanis Rd/Ferndale Cutoff Rd area of West Pulaski County. The project is primarily being funded by the West Pulaski Water Authority in its work to provide CAW potable water to the area. CAW is participating in the project to ensure minimum standards are met in the development of the water infrastructure in the area. CAW participation in the project is also needed to help West Pulaski Water Authority obtain favorable loans and grants to fund the approximate \$15 million project.

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<b>Project Name:</b>	Relocation of Transmission and Distribution Mains
<b>Department:</b>	Engineering
<b>Focus Area:</b>	Mandatory Relocation Projects
<b>Location:</b>	System-wide

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## PROJECT PURPOSE

As a condition of CAW water mains and other infrastructure components occupying roadway right-of-way areas, the Utility has a legal obligation to relocate these assets if they are in conflict with street or drainage improvement projects. Relocation of mains are budgeted as required within the CAW service area due to the street, road, drainage, or other public work improvements.

While relocations do result in newer infrastructure, these projects are not dictated by CAW system needs or assets that are past their useful life. Therefore, these mandatory projects compete for limited infrastructure funds that could otherwise be used for replacing aging infrastructure that is past its useful life or that has a chronic history of spontaneous breakage. The Utility was able to accommodate these relocations in 2015 - 2019 without a significant reduction in the replacement of galvanized pipe by using excess working capital and rates. CAW will continue this funding practice with the addition of Bond funds in 2020 as relocation projects continue. While this project will reduce maintenance costs of repairing leaks and breaks, this amount is not easily quantifiable due to the unique circumstances and environments surrounding each leak and break situation.

**Project Name:** Relocate 24-inch Transmission Main Along Interstate 30 (I-30) Ark River Bridge - Payment No. 1, 2 & 3 - Job No. 08335



**Est Start Date:**  
January 2020; January 2022

**Duration: (Months)**  
12 Months; 12 Months

**Total Cost:**  
\$2,355,000

Source	2020	2021	2022	2023	2024
2018B BOND	1,880,000	—	805,000	—	—

**Project Name:** Relocate Water Mains - Interstate 30 Widening - Various Locations



**Est Start Date:**  
July 2020

**Duration: (Months)**  
24 Months

**Total Cost:**  
\$600,000

Source	2020	2021	2022	2023	2024
2018B BOND	150,000	300,000	150,000	—	—

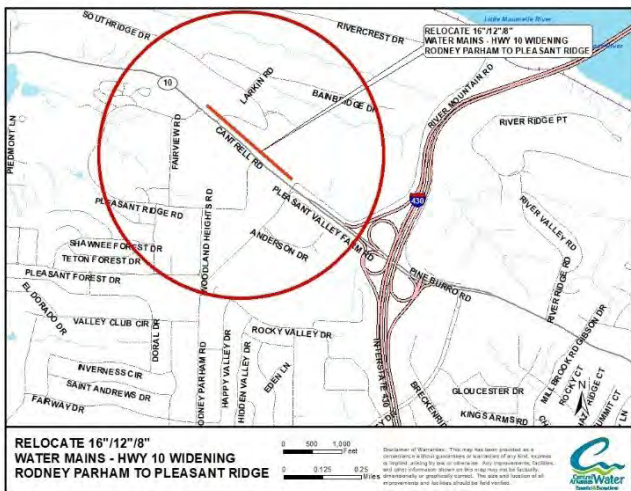
**Project Name:** Relocate 30/16/12/8-inch Water Mains - Cantrell Road/AR Highway 10/Rodney Parham Road - Phase 1



<b>Est Start Date:</b>
January 2020
<b>Duration: (Months)</b>
12 Months
<b>Total Cost:</b>
\$1,000,000

Source	2020	2021	2022	2023	2024
2018B BOND	1,000,000	—	—	—	—

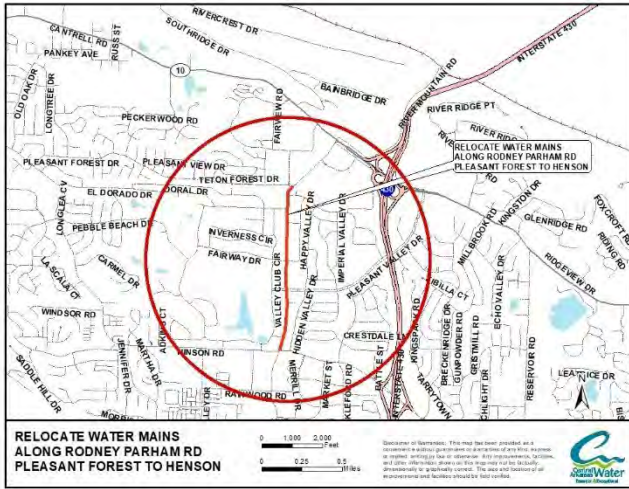
**Project Name:** Relocate 16/12/8-inch Water Mains - Cantrell Road/AR Highway 10/Rodney Parham Rd - Phase 2



<b>Est Start Date:</b>
March 2021
<b>Duration: (Months)</b>
8 Months
<b>Total Cost:</b>
\$500,000

Source	2020	2021	2022	2023	2024
2018B BOND	—	500,000	—	—	—

**Project Name:** Relocate Water Mains - Rodney Parham Road Improvements - LR



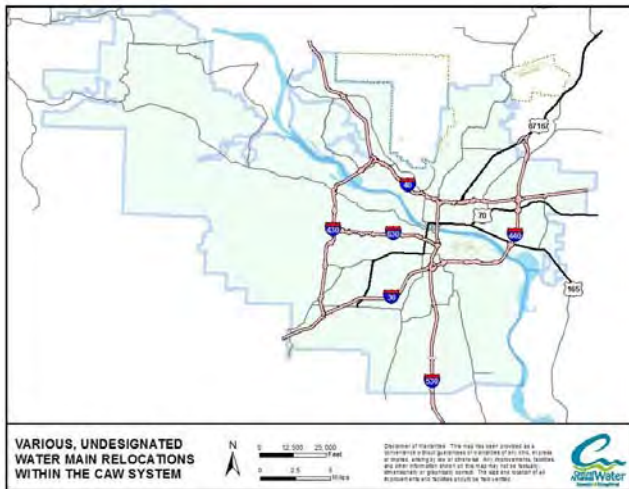
**Est Start Date:**  
April 2020

**Duration: (Months)**  
6 Months

**Total Cost:**  
\$500,000

Source	2020	2021	2022	2023	2024
2018B BOND	500,000	—	—	—	—

**Project Name:** Relocate Water Mains - Various Known/Unknown Locations - State/County/ City Improvements



**Est Start Date:**  
January 2020

**Duration: (Months)**  
Ongoing

**Total Cost:**  
\$1,600,000

Source	2020	2021	2022	2023	2024
RATES	400,000	300,000	300,000	300,000	300,000

**Project Name:** Replace Water Mains - Aging Galvanized, Asbestos-Cement, Cast Iron - System-wide  
**Department:** Engineering  
**Focus Area:** Asset Replacement - Mains  
**Location:** System-wide



<b>Name:</b>
Jim Ferguson

<b>Est Start Date:</b>
January 2020

<b>Duration: (Months)</b>
Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	3,169,000	4,049,000	4,027,000	3,758,000	4,710,500

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	*	*	*	*	*

\*While this project will reduce maintenance costs of repairing leaks and breaks, this amount is not easily quantifiable due to the unique circumstances and environments surrounding each leak and break situation.

**PROJECT PURPOSE**

The replacements are prioritized as needed based on water main service life expectancy as well as mains that experience numerous leaks and breaks, resulting in uncontrolled loss of water service. Replacement of the aging water mains provides an improved level of service to customers in the affected areas and reduces maintenance costs associated with leaks and breaks.



<b>Project Name:</b>	Purchase & Install 3.25 Megawatt Generator Lake Maumelle
<b>Department:</b>	Water Production
<b>Focus Area:</b>	Water Supply
<b>Location:</b>	Lake Maumelle Pump Station



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Doug Graham	January 2021	10 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
FEMA	—	1,400,000	—	—	—

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The two current generators are rated for 2.2 megawatts each, are water cooled, and are 32 years old. This currently allows two large pumps to be run simultaneously providing a flow of 62 MGD. There have been times that a pump would trip the generator on startup when only one generator was running. With the addition of a 3.25 megawatt generator, CAW will have the ability to run three large pumps at this location, improving reliability and flexibility. The new unit will be air cooled which omits the need to keep the water cooling lines flushed. Having this generator will also lengthen the time period between generator change outs, resulting in less capital costs.

**Project Name:** Replace GAC - Ozark Point Plant  
**Department:** Water Production  
**Focus Area:** Water Treatment  
**Location:** Ozark Point Plant



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Sam Zehtaban	March 2021	46 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	300,000	300,000	300,000	300,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

Activated carbon is commonly used to adsorb natural organic compounds, taste and odor compounds, and synthetic organic chemicals in drinking water treatment. CAW utilizes the activated carbon in granular form in its filtration-adsorption process.

The need to periodically ‘reactivate (regenerate)’ or replace the granular activated carbon (GAC) to maintain the adsorption capability is a significant consideration when using GAC. How often the GAC should be changed needs to be based on contaminant levels and water use.

Specifications for filter media follow the AWWA Standard for Granular Filter Material B604-18, ANSI/AWWA B100-01, American Water Works Association.

**Project Name:** Install and Replace Hydrants  
**Department:** Distribution  
**Focus Area:** Hydrants  
**Location:** System-wide



<b>Name:</b>
Blake Weindorf

<b>Est Start Date:</b>
January 2020

<b>Duration: (Months)</b>
Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	125,000	130,000	135,000	140,000	145,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The project will consist of installing new hydrants and the replacement of existing hydrants that have been hit and damaged by vehicles.

**Project Name:** Install Meters for New Services  
**Department:** Distribution  
**Focus Area:** Meters  
**Location:** System-wide



<b>Name:</b>
Blake Weindorf

<b>Est Start Date:</b>
January 2020

<b>Duration: (Months)</b>
Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	130,000	175,000	200,000	205,000	210,000

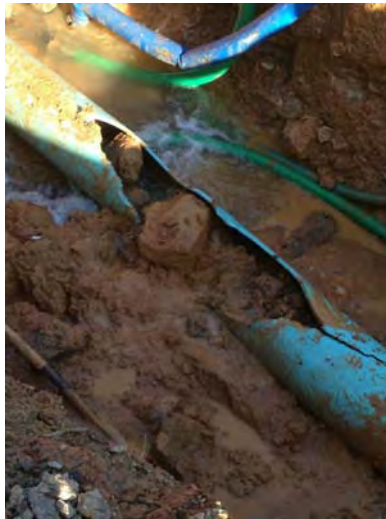
**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

These meters are dedicated to the installation of new residential, commercial, and industrial service accounts. They are for new services requested for new construction and infrastructure additions. These meters range from 5/8-inch to 6-inch in diameter and are essential for customer service, revenue generation, and system growth within the system.

**Project Name:** Install, Replace, and Relocate Mains  
**Department:** Distribution  
**Focus Area:** Mains  
**Location:** System-wide



<b>Name:</b>
Blake Weindorf

<b>Est Start Date:</b>
January 2020

<b>Duration: (Months)</b>
Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	160,000	180,000	200,000	220,000	220,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

This project will consist of the relocation, replacement, and repair of existing mains that can be capitalized.

**Project Name:** Install, Replace, and Transfer Services - Maumelle  
**Department:** Distribution  
**Focus Area:** Services  
**Location:** Maumelle Service Area



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Blake Weindorf	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
MWM RATES	230,000	235,000	240,000	245,000	250,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The project will consist of replacing existing services for residential and commercial customers due to failure and/or preventative maintenance.

**Project Name:** Purchase/Install Meters - Change Out Program  
**Department:** Distribution  
**Focus Area:** Meters  
**Location:** System-wide



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Blake Weindorf	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	600,000	620,000	640,000	660,000	680,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The meter change out program consists of a routine cycle to change out meters which have reached the end of their useful lives as determined through industry knowledge and experience: 16 years for 5/8-inch meters, 12 years for 3/4-inch meters, 10 years for 1-inch meters, 8 years for 1-1/2-inch meters, and 6 years for 2-inch meters.

<b>Project Name:</b>	Purchase/Install Services (New, Replace, Transfer)
<b>Department:</b>	Distribution
<b>Focus Area:</b>	Services
<b>Location:</b>	System-wide



<b>Name:</b>	<b>Est Start Date:</b>	<b>Duration: (Months)</b>
Blake Weindorf	January 2020	Ongoing

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	1,300,000	1,320,000	1,340,000	1,360,000	1,380,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The project will consist of installing service lines at new service locations and replacing existing services for residential and commercial customers due to failure and/or preventative maintenance.



**Project Name:** Restore Tank No. 2 and No. 22  
**Department:** Distribution  
**Focus Area:** Tanks  
**Location:** System-wide



<b>Name:</b>
Blake Weindorf

<b>Est Start Date:</b>
October 2022

<b>Duration: (Months)</b>
18 Months

**Capital Costs**

Source	2020	2021	2022	2023	2024
RATES	—	—	425,000	727,500	350,000

**O&M Impact**

G/L	2020	2021	2022	2023	2024
	—	—	—	—	—

**PROJECT PURPOSE**

The project consists of required improvements to each elevated water storage tank. Specifically, the roof and exterior of Tank No. 2 located near the Interstate 430 and Interstate 630 interchange in west Little Rock will be sandblasted and repainted for the first time since construction of the tank in 1986. The roof portion will be performed in 2023, while the tank exterior will be completed in 2024. Additionally, the interior and exterior of Tank No. 22 located in Indian Hills is planned to be repainted at the end of 2022 and into the first quarter of 2023.

# Project Planner

Activity 2020 - 2024	Budgeted in Thousand	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Install Solar Arrays to Reduce Energy Costs	9,000	9,000																					
Purchase Conservation Easements	1,000	200				200				200				200				200					
Purchase Property	2,500	500				500				500				500				500					
Purchase Document Management System (DMS)	600	25				275				150				150									
Replace Customer Information System - Job No. 08288	2,638	2,388				250																	
Upgrade Microsoft Dynamics Finance and Operations System	600													600									
Construct Booster Pump Station No. 17B - Highland Ridge	600					600																	
Developer-Funded Capital	12,500	2,500				2,500				2,500				2,500				2,500					
Developer Participation - New Mains	700	100				150				150				150				150					
Improve Booster Pump Station No. 22 - Crystal Hill	500																	500					
Improve Lake Winona Spillway	500					500																	
Improve Ozark Point Plant - Phase 1 Construction - Clearwell Baffles & Paint - Job No. 07516A	2,740					500				2,240													
Improve Ozark Point Plant - Phase 2 Construction - Project No. 4687 - Job No. 07516B	24,230	13,750				10,480																	
Improve Ozark Point Plant - Phase 2 Construction Phase Engineering Services - Project No. 4687 - Job No. 07516	806	429				377																	
Improve Pump Station No. 1A - Phase 2 Construction - Wilson Plant - Job No. 07515	3,000									1,500				1,500									
Improve Raw Water Pump Station No. 12 - Jackson Reservoir	1,300													1,300									
Improve/Rehab Wilson Plant	15,000																	15,000					
Install 24-inch Transmission Main - N. Locust Street/Pump Station No. 23 - North Little Rock	2,000	2,000																					
Install Master Plan Transmission Mains - Various	1,000																	1,000					
Install 12-inch Water Main - Morgan/North Little Rock Intermediate Pressure Zone Looping	650					650																	
Paint/Improve Ground Storage Tank No. 30B - Maumelle	600									300		300											
Participation - West Pulaski Water Authority - Burlingame/Kanis Rd	2,200	200				2,000																	
Relocation of Transmission and Distribution Mains	6,885	3,930				1,100				1,255				300				300					
Replace Water Mains - Aging Galvanized, Asbestos-Cement, Cast Iron - System-wide	19,714	3,169				4,049				4,027				3,758				4,711					
Purchase & Install 3.25 Megawatt Generator Lake Maumelle	1,400					1,400																	
Replace Granular Activated Carbon Media (GAC) - Ozark Point Plant	1,200					300				300				300				300					
Install and Replace Hydrants	675	125				130				135				140				145					
Install Meters for New Services	920	130				175				200				205				210					
Install, Replace, and Relocate Mains	980	160				180				200				220				220					
Install, Replace, and Transfer Services - Maumelle	1,200	230				235				240				245				250					
Purchase/Install Meters - Change Out Program	3,200	600				620				640				660				680					
Purchase/Install Services (New, Replace, Transfer)	6,700	1,300				1,320				1,340				1,360				1,380					
Restore Tank No. 2 and No. 22	1,503													425		728		350					
Total Projects		18	18	20	21	21	18	18	19	16	15	15	16	17	18	17	16	17	16	16	15		

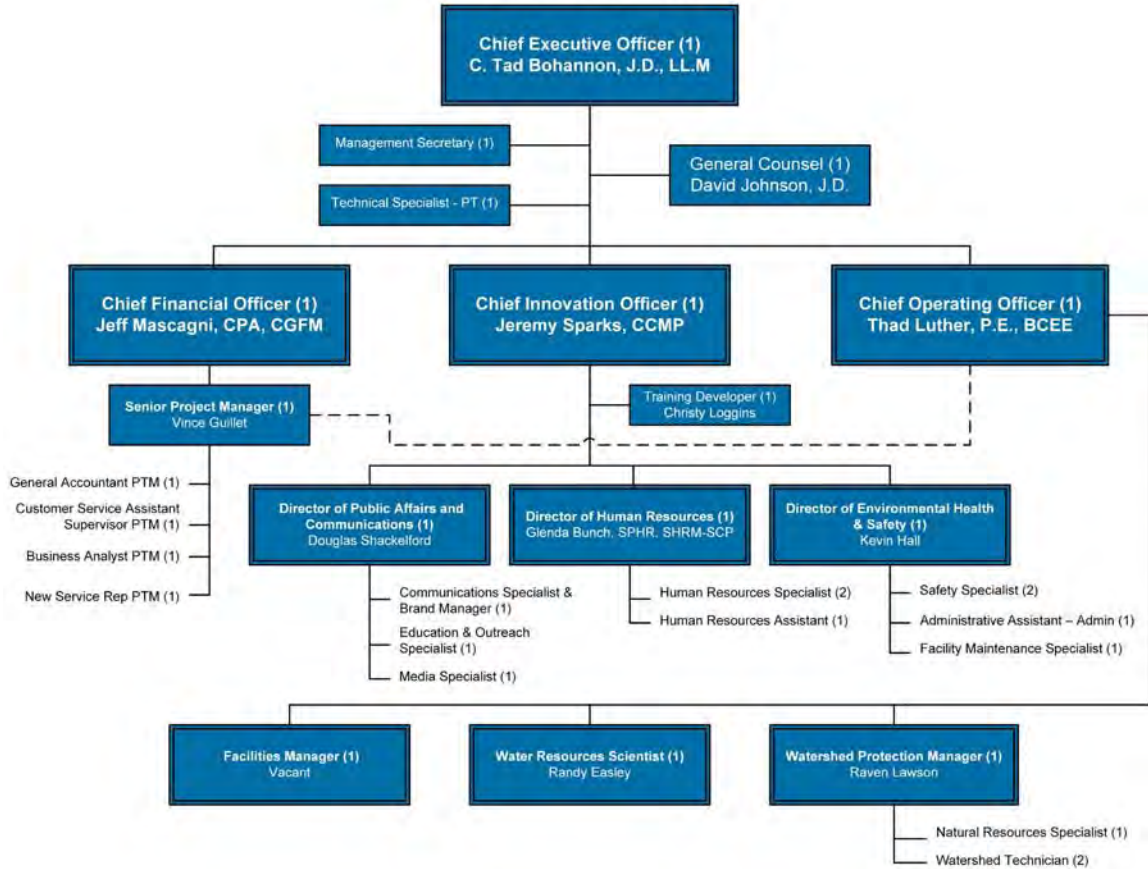
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A photograph of a green and white sailboat on a calm lake at sunset. The boat is reflected in the water. The background is a dense forest of trees, some with yellowing leaves, suggesting autumn. The sky is a mix of orange and blue. The word "DEPARTMENTS" is written in white, bold, sans-serif capital letters across the middle of the image, flanked by two horizontal white lines.

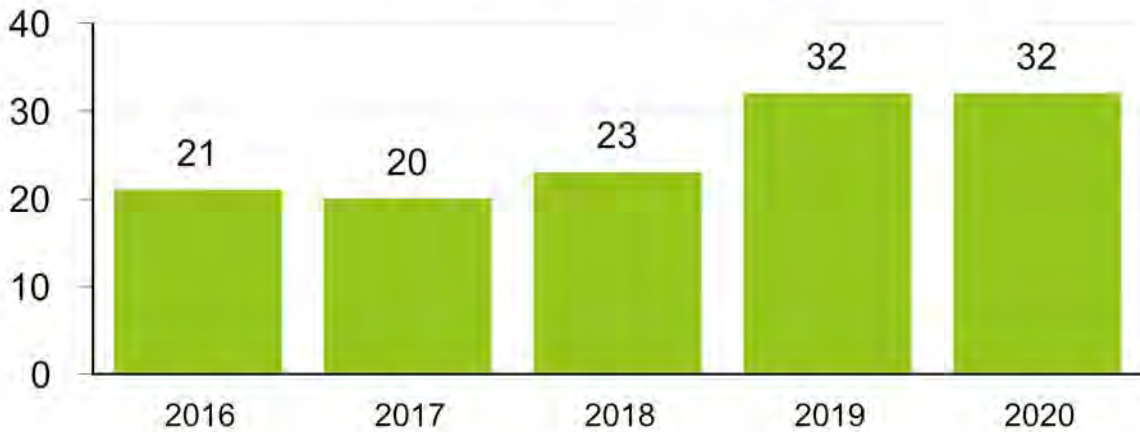
# DEPARTMENTS

# ADMINISTRATION DEPARTMENT

Effective: January 1, 2020



## Departmental Staff by Year



# EXECUTIVE STAFF

## **Chief Executive Officer**

The highest-ranking officer in the organization, the CEO, reports directly to the Board of Commissioners. The CEO collaborates with the Board to establish a strategic plan for the Utility and is responsible for implementing plan initiatives throughout the organization. The CEO also is responsible for the overall management of the Utility and the organization's profile and image. As the Utility's leader, the CEO frequently fills the roles of motivator, mentor, and advocate. The CEO has direct supervision over the COO, CFO, and CINO, as well as day-to-day supervision of the General Counsel (GC).

## **Chief Operating Officer**

The COO is responsible for managing the day-to-day operational activities of the Utility and ensuring the required resources and assets are in place to deliver high-quality water and dependable service. The COO is responsible for the development, design, and implementation of business processes and systems that effectively and efficiently deliver water and service to customers. The COO directly supervises the Engineering, Distribution, and Water Production Departments.

## **Chief Financial Officer**

The CFO is responsible for managing all financial, customer service, and technology driven aspects of the Utility as well as the day to day supervision of the Senior Project Manager. The CFO ensures that strategic objectives are financially supported through financial planning, implementing the annual budget, and developing sufficient rates. The CFO is responsible for accurate and timely financial reporting, maintaining banking relationships, investment and debt management, billing activities, and customer payment processing. The CFO also has oversight in the processing and contracting of procurement requests for materials, supplies, and services in addition to risk management practices.

## **Chief Innovation Officer**

The CINO is responsible for managing administrative aspects of the Utility and for ensuring a HIVIP workforce is in place to carry out CAW's mission. The CINO directly supervises EHS, Human Resources, and Public Affairs and Communications of the Administration Department. The Training Content Developer reports directly to the CINO as well. The CINO is responsible for overseeing organizational change initiatives, benchmarking, and business system process modeling. The CINO also leads the strategic planning process and the professional development of CAW employees.

## General Counsel

The GC reports directly to the CEO and the Board of Commissioners. The GC enhances CAW by providing prompt resolution of legal issues, proactive advice, and counsel to the Utility's administration. The GC is responsible for working with the Board, the Utility's officers, and department directors to ensure operations of the Utility maintain compliance with relevant laws, regulations, and policies. The GC serves as legal adviser and counsel to the Board and staff; provides assistance in interpreting the legal ramifications of proposals, policy directives, and other actions; advises, promotes, and manages efforts related to federal, state, or local legislation; and handles special projects as requested by the Board, or CEO.

<b>EUM Attribute:</b>	Employee and Leadership Development
<b>Goal:</b>	Implement increased leadership and employee development training for CAW managers and employees.

<b>EUM Attribute:</b>	Stakeholder Understanding/Support
<b>Goal:</b>	Maintain open dialogue with city and county officials, major customers, regional partners, and community organizations.

## 2019 Accomplishments

CAW leadership continued its pursuit of the mission of delivering high quality water and dependable service, protecting and ensuring a long-term water supply, and serving as responsible stewards of public health, utility resources, and the environment. The CAW Executive Team was very active in 2019, leading projects that range from infrastructure improvement to feasibility studies to employee development and engagement. Leadership remained involved in the CIS replacement project with the continued system implementation of Cayenta Utilities, with Go-Live planned for mid-2020. Ozark Point Plant improvements remained a focus of 2019, with the design phase ending and the construction phase beginning. This rehabilitation project is expected to continue through 2022. The MWM water treatment plant decommission was a significant project in 2019, with this being a key piece to closing the merger transition period. CAW leadership led feasibility studies to evaluate the possibility of consolidating Paron-Owensville Water Authority and the City of Shannon Hills Water Department with CAW. Solar options continued to be researched and considered in 2019. The installation of solar arrays is included in the 2020 CIP and can be seen in detail on page 118.

CAW leadership introduced several endeavors to promote employee development and engagement in 2019. CAW-U was established to assist employees in a variety of ways such as license exam preparation. The first CAW-U module was an Arkansas Department

of Health (ADH) license exam preparation class. 90% of the students passed the exam and gained the required ADH license. The second CAW-U module was designed to develop and bolster leadership qualities in the next generation of leaders. In late 2018, the FLOW Innovation Lab was introduced to gain employee insight about topics that pertain to the CAW culture. In 2019, topics included Utility-wide Standard Operating Procedures (SOPs), CAW-U, and performance evaluation forms. Safety is of the utmost priority at CAW, and EHS hosted the CAW Safety Days in May 2019 to promote workplace safety with vendors, guest speakers, food trucks, and fun and games. These efforts helped lead CAW to be recognized as one of the Arkansas Business Best Places to Work in 2019.

**2020 Goals**

- Continue developing long-term Succession Plan
- Improve long-term financial and source water sustainability
- Continue increasing cross-departmental functionality
- Continue formalizing Standard Operating Procedures and processes
- Increase employee developmental opportunities
- Increase community knowledge and satisfaction

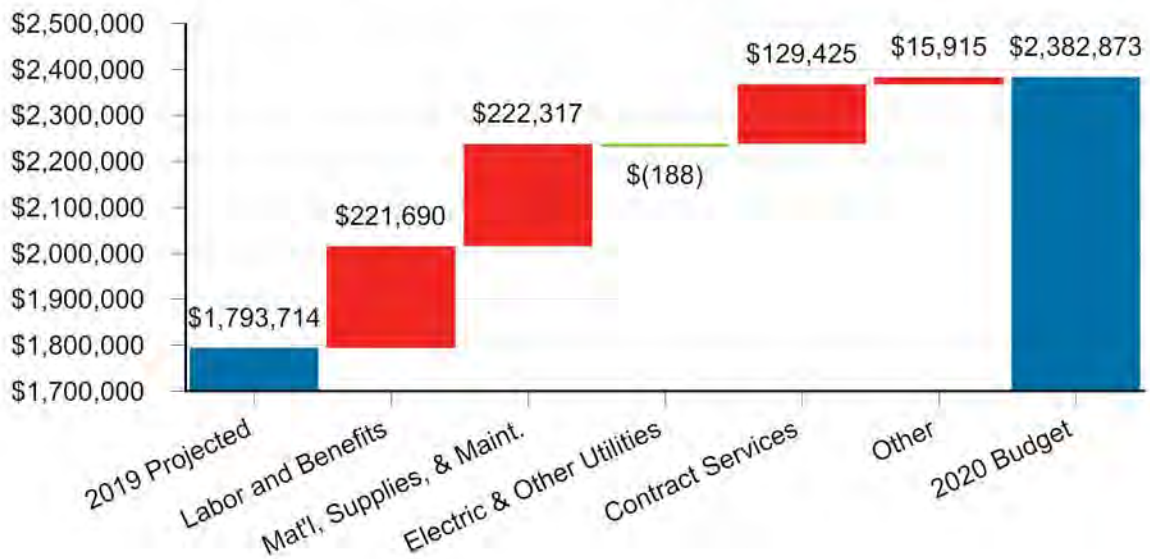
**Administration Department - Expense Summary**

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 1,114,319	\$ 1,291,833	\$ 1,272,294	\$ 1,513,523
Materials, Supplies, and Maintenance	132,207	141,483	107,100	363,800
Electric and Other Utilities	1,810	2,588	1,200	2,400
Contract Services	437,457	333,975	555,000	463,400
Other	19,962	23,835	42,000	39,750
<b>Total Expenses</b>	<b>1,705,755</b>	<b>1,793,714</b>	<b>1,977,594</b>	<b>2,382,873</b>
<b>Total Capital Costs</b>	<b>59,412</b>	<b>—</b>	<b>20,220,000</b>	<b>10,381,000</b>
<b>Total Administration</b>	<b>\$ 1,765,167</b>	<b>\$ 1,793,714</b>	<b>\$ 22,197,594</b>	<b>\$ 12,763,873</b>

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## Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# HUMAN RESOURCES

The HR Section provides services and support for all aspects of employment, employee relations, and succession planning for each of CAW's dedicated employees. HR staff have a wide range of diverse responsibilities that include recruitment; developing and maintaining the employee handbook and Utility-wide policies and procedures; evaluating and recommending employee benefits; overseeing the compensation program; providing training and professional development; reviewing/assisting with performance evaluations; overseeing Utility-wide succession planning; implementing the alcohol/drug-free workplace program; providing employee relations and assistance; leading diversity and inclusion initiatives; and contributing to CAW's Strategic Plan.

## Mission

The HR staff strive to provide the Utility with a well-qualified, diverse, and dedicated work force through recruitment efforts and Utility programs. HR provides all of CAW's employees with outstanding service, support, information, and assistance regarding Utility policies, benefits, programs, and other areas of concern.

HR is committed to ensuring that the Utility's recruitment programs, policies, procedures, compensation, and employee benefits programs continue to attract and retain HIVIP employees throughout the organization. This role is in ongoing support of the Utility's commitment to exceptional water quality and customer service, fiscal responsibility, resource stewardship and sustainability, and legal and ethical accountability.

In addition, HR is committed to ensuring CAW's fair and equitable treatment of all employees, in accordance with legal and professional standards.

<b>EUM Attribute:</b>	Employee and Leadership Development
<b>Goal:</b>	Develop, Maintain, and Recruit a Diverse, Sustainable, High-Performing Workforce

**Objective 1:** Recruit, develop, reward, and maintain a HIVIP and diverse work force committed to achieving CAW's Mission and Strategic Goals.

## 2019 Accomplishments

Turnover in 2019 is trending around 7.9% including retirees. The Utility has hired 26 new employees year-to-date, in addition to several promotions and transfers.

The most significant achievement in 2019 was the review of CAW's total compensation package and revamping the CAW benefit program. This resulted in a more robust range of benefits for CAW employees.

**Objective 2:** Measure and Improve Employee Satisfaction Levels

**2019 Accomplishments**

In 2019, CAW conducted upward feedback surveys on its leaders for the first time. Utilizing this assessment tool in tandem with the traditional annual evaluations assists with overall communication, resulting in improved employee satisfaction.

Employee surveys were also administered throughout the year regarding benefits as part of the total compensation review. Annual total compensation statements have been created and are expected to be released to the employees .

**Objective 3:** Expand Employee Skills and Technical Training to Develop and Prepare Employees for Future Positions, and increase span of Employee Certification and Licensing

**2019 Accomplishments**

CAW-U was created and started offering classes in 2019. The first series of classes were designed to assist employees with passing the required Distribution and Treatment tests for licensing. Ten people enrolled in the class. This class resulted in a 90% pass rate of the exams.

The second release was a Leadership Class. It is designed for current or future supervisors at CAW. Twenty-five people signed up for this series. The response was so great that there were enough enrollees for this session and a future session.

**Objective 4:** Develop and implement simplified online employee evaluation process, and online hiring/application process. (From Strategic Initiative 4)

**2019 Accomplishments**

The performance review process was shortened from a seven to nine-page manual document to a three-page PDF document stored on the intranet. The form, along with heightened awareness has enabled the reviews to all be brought current and almost eliminated the need for retro pay adjustments.

**2020 Goals**

HR will focus on completing goals in the Strategic Plan.

Human Resources Information System - One focus will be selecting, installing, and implementing a HRIS system that will reduce duplicate entry and paper.

Applicant Tracking System (ATS) - The HRIS system selected must also have an ATS that is fully automated and paperless.

CAW Employee Handbook - An updated CAW Employee Handbook will be completed in 2020, with the employee benefit changes. The handbook will be published both digitally and in hard copy.

Succession Planning - A formal, documented succession plan will be established by working closely with each department director to formulate.

CAW-U - HR will continue to expand CAW-U to ensure proper leadership and skills training needed to encourage succession from the Utility when possible.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Time to Fill (Weeks)	7.4 wks	7.4 wks	7.0 wks
Turnover	6.3%	7.9%	7.5%
Cost of Benefits*	29%	29%	29%
Diversity and Inclusion Training	Yes	Yes	Yes

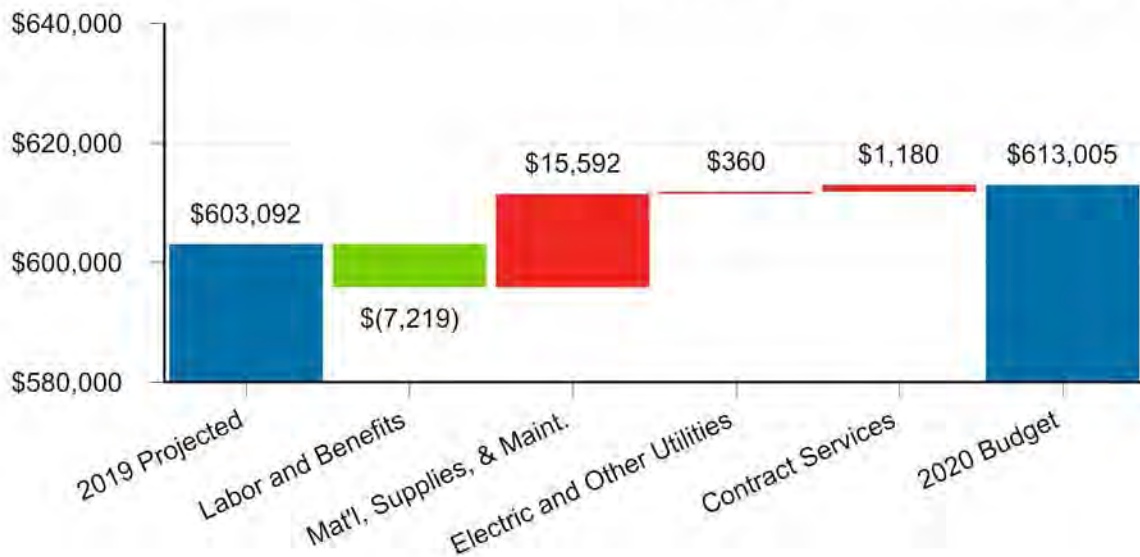
\* Calculation methodology revised to provide benchmarking with Bureau of Labor Statistics/SHRM Cost of Benefits Calculation as percentage of total compensation (wages and benefits), rather than percentage of wages only.

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## Human Resource - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 597,645	\$ 510,194	\$ 526,408	\$ 502,975
Materials, Supplies, and Maintenance	33,896	48,658	59,625	64,250
Electric and Other Utilities	180	120	—	480
Contract Services	49,331	44,120	62,700	45,300
<b>Total Expenses</b>	<b>681,052</b>	<b>603,092</b>	<b>648,733</b>	<b>613,005</b>
<b>Total Capital Costs</b>	—	—	—	—
<b>Total Human Resources</b>	<b>\$ 681,052</b>	<b>\$ 603,092</b>	<b>\$ 648,733</b>	<b>\$ 613,005</b>

### Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# PUBLIC AFFAIRS AND COMMUNICATIONS

The Public Affairs and Communications Section manages a comprehensive and multi-faceted corporate public relations and communications program for CAW. Programming encompasses consumer, community, public, and news media relations, as well as other external communications with customers and the public. The section ensures that the Utility provides accurate, timely, and responsive information relating to service, rates, outreach, public-policy decisions, and initiatives that are integral to the Utility's role as a water service provider. Communications also is responsible for maintaining a positive public presence for the Utility. Staffing for the section includes the Director of Public Affairs and Communications, the Communications Specialist and Brand Manager, the Education and Outreach Specialist, the Media Specialist, and contractual support from external public relations agencies.

The Public Affairs and Communications section works extensively with other departments to meet the Utility's special and general communications objectives. The section develops and provides information to customers and the public through multiple venues that include billing statement inserts; billing statement messages; a series of customized pamphlets, brochures, and other publications; news releases; news conferences; facility tours; advertising; public presentations and meetings; community and special events; the distribution of water-related literature and oversight of special projects; Utility sustainability objectives; CAW website ([www.carkw.com](http://www.carkw.com)); and social media venues such as Twitter, Facebook, YouTube, Nextdoor, LinkedIn and Instragram. Public Affairs and Communications also provides direction on consumer and other research, as well as manages contracts with external public relations agencies.

## Mission

CAW's philosophy of external communications is: (1) to foster dialogue with customers to ensure the continual enhancement of service so as to meet the needs and reasonable expectations of customers; (2) to provide customers with information in advance of changes in rates, water service, policies, procedures, and operations; (3) to keep pace to the extent economically practical with advancements in communications technology; (4) to advance public participation in policy and decision-making; (5) to cultivate ambassadors to reinforce the value of the services CAW provides; and (6) to maintain relations that reflects the Utility's culture as a hometown utility and contributing corporate community partner.

<b>EUM Attribute:</b>	Stakeholder Understanding and Support
<b>Goal:</b>	Actively involve stakeholders to engender understanding and support and disseminate information through multiple venues to optimize audience diversity and outreach

**Objective 1:** Expand Education and Outreach initiatives to disseminate the utility’s mission, operations, and enrich understanding about the product and delivery.

**2019 Accomplishments**

Beginning in 2017, the Public Affairs and Communications section launched the Citizens Water Academy program targeting a diverse sector of community leaders, stakeholders, and residents in central Arkansas under the premise of introducing critical areas of operations, encourage continued learning, and advocacy for this valuable resource. In 2019, 50 people participated in the Citizens Water Academy.

**Objective 2:** Expand opportunities to communicate with customers through diverse outreach venues, including social media technology such as Facebook, Twitter, and web blogs.

**2019 Accomplishments**

In 2019, total consumer outreach increased exponentially through targeted social media marketing strategies. Additional social media outlets were acquired, including Nextdoor, LinkedIn and Instagram. CAW’s total reach on social media was increased to more than 73,000 in 2019.

**Objective 3:** Comply with and/or exceed Federal and state regulatory deadlines for issuance of the annual Water Quality Report by July 1st.

**2019 Accomplishments**

The annual Water Quality Report was issued on May 30, 2019. On June 25, 2019, postcard notices were mailed to all customers and all ground addresses within U.S. zip codes that are completely or significantly within the Utility’s CIS.

**Objective 4:** Maintain frequent and regular contact with public officials and other key stakeholder groups regarding rates, water quality, and watershed protection.

**2019 Accomplishments**

CAW maintains almost constant dialogue with public officials within the service area. In 2019, the Public Affairs and Communications staff stayed in contact with public officials by attending a myriad of meetings in the central Arkansas area. These include the Little Rock City Board of Directors, North Little Rock City Council, Maumelle City Council, Country Club of Arkansas Property Owners Association, Heights Property Owners Association, Little Rock Engineers Club, the Little Rock chapter of the National Association of Women in Construction, as well as numerous Rotary Club chapters. Public Affairs and Communications

staff have also spoken at various conferences to share best practices with industry peers. These ranged from local conferences such as those held by Arkansas Water Works and Water Environment Association and Arkansas Educators Association to regional conferences such as the Southwest Section Annual Conference to national conferences such as the Water Customer Care Forum and the Utility Management Conference.

**Objective 5:** Foster public engagement in policy and decision-making through public meetings and public hearings.

**2019 Accomplishments**

Outreach and education for Maumelle residents continues through public meeting updates concerning the merger of MWM and CAW, which went into effect in March of 2016. CAW also met with numerous neighborhood associations to discuss multiple projects, including a major main replacement project in the Heights, and major renovations to the Ozark Point Water Treatment plant in Hillcrest.

**Objective 6:** Issue responses to Arkansas Freedom of Information Act requests within required time frames.

**2019 Accomplishments**

100% compliance.

<b>EUM Attribute:</b>	Customer Satisfaction
<b>Goal:</b>	To provide customer service that exceeds expectation in quality, delivery, rates, and dependability

**Objective 1:** Regularly conduct customer satisfaction surveys, targeting overall performance rating to exceed 80%.

**2019 Accomplishments**

CAW completed a new comprehensive satisfaction survey in January of 2019, and 91% of respondents were satisfied with the overall performance of the utility. The next survey will be conducted during fourth quarter 2020 with survey results being reported upon at the conclusion of the year.



## **Other 2019 Accomplishments**

Public Affairs and Communications continue to expand its outreach into the community. The department began work on a permanent classroom space at the Wilson Plant. A contract was entered into with Garver Engineers to produce architectural diagrams for renovation of the old Pilot Plant space in the administration building of the plant. Completion of this project in 2021 will allow more students and stakeholders to visit the plant and learn about the industry.

CAW continued to increase its education efforts through partnering with the UALR STEM program to introduce the Power of Water teacher professional development program. This year the program expanded to include high school educators in a separate session. Along with the existing middle school program, more than 35 teachers, representing multiple districts in central Arkansas and surrounding areas, were able to attend to learn more about important water industry concepts.

## **2020 Goals**

The aforementioned classroom space at the Wilson Plant and the redesign of the CAW web site will be a large focus of the Public Affairs and Communications area in 2020. Both of these projects will impact CAW and its customers for years to come.

In an effort to promote safe, affordable, and abundant drinking water from the tap, CAW is partnering with agencies and facilities across the region to implement a bottle-filling station program. This program will support the installation of bottle-filler fountains in public areas, such as the Little Rock Zoo, the River Market, the local minor league baseball stadium, and other locations throughout the community. These fillers will be branded to explain why tap water is a better choice versus bottled water, and promote reuse and sustainability in CAW's service area. The Public Affairs and Communications section will lead CAW in these endeavors.

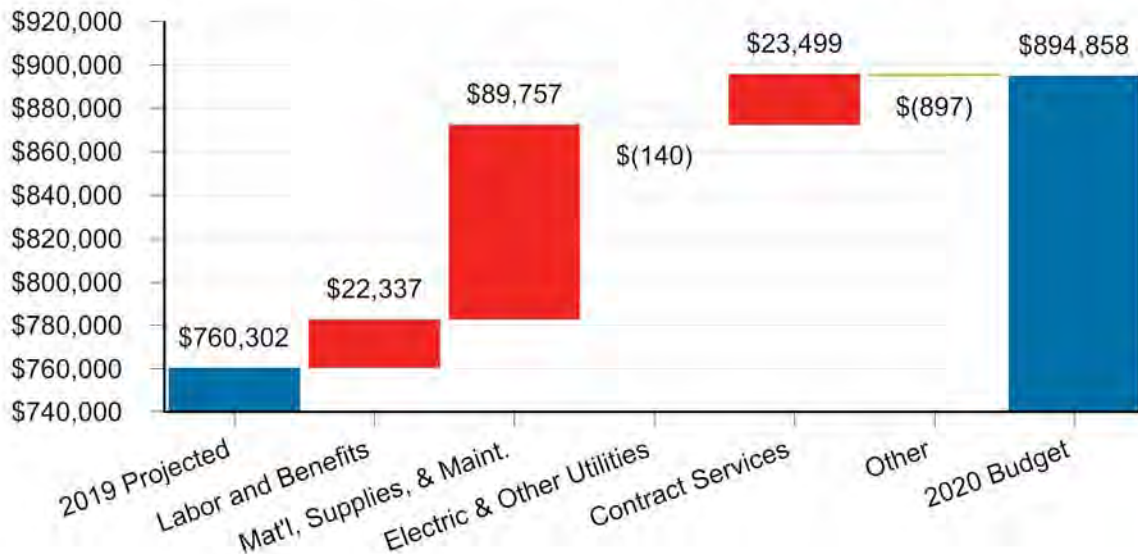
The Public Affairs and Communications staff will facilitate brand and utility priority meetings with focus groups made up of members of the community. These groups will answer specific questions and provide reaction to projects, programs and scenarios so that CAW can better streamline its approaches to communication. Areas of focus will include the customer service lobby, Utility Billing Services, bill layout and structure, and payment options.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Expand and Diversify Communications Outreach Venues	Yes	Yes	Yes
Issue Federal Water Quality Report Before July 1st	Yes	Yes	Yes
Issue Responses to Arkansas Freedom of Information Act Requests Within Required Time Frames	Yes	Yes	Yes

## Public Affairs and Communications - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 409,308	\$ 470,351	\$ 461,224	\$ 492,688
Materials, Supplies, and Maintenance	94,186	160,793	203,500	250,550
Electric and Other Utilities	1,190	2,660	2,520	2,520
Contract Services	74,750	113,601	154,000	137,100
MWM Transition Cost	653	—	—	—
Other	21,150	12,897	8,000	12,000
<b>Total Expenses</b>	<b>601,237</b>	<b>760,302</b>	<b>829,244</b>	<b>894,858</b>
<b>Total Capital Costs</b>	—	—	—	—
<b>Total Communications &amp; Public Affairs</b>	<b>\$ 601,237</b>	<b>\$ 760,302</b>	<b>\$ 829,244</b>	<b>\$ 894,858</b>

## Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# ENVIRONMENTAL HEALTH & SAFETY

EHS works to create and maintain a safe workplace environment, both in the field and in the office, by preventing accidents and occupational illnesses. EHS staff conduct intense employee training, performs routine health and safety inspections throughout the Utility, and eliminates unsafe acts and conditions.

Each Director, Manager, and Supervisor has the responsibility of enforcing the Utility's safety policies and procedures and setting a good health and safety example for employees. While EHS has the responsibility of providing the necessary training and support to facilitate effective enforcement and workplace safety, supervisors reinforce sound practices by leading by example and wearing the proper personal protective equipment, following all safety rules and regulations, actively participating in safety inspections and safety meetings, and being good role models for employees.

## Mission

EHS ensures that each CAW employee benefits from a safe and healthy place of employment.

<b>EUM Attribute:</b>	Operational Resiliency
<b>Goal:</b>	Eliminate or reduce employee injuries and motor vehicle crashes.

**Objective 1:** Provide Occupational Safety & Health Administration (OSHA) required safety training for all affected CAW employees, leading to reduced workers compensation claims, costs, and lost time compared to previous year.

## 2019 Accomplishments

By the end of 2019, EHS will have provided over 100 health and safety training sessions for CAW employees. The majority of the training EHS provides is OSHA required. Examples of training include CPR, defensive driving, competent person, confined spaces, respiratory protection, hearing conservation, forklift certification, and emergency response, among others.

**Objective 2:** Inspect all facilities on a quarterly basis and all vehicles annually

**2019 Accomplishments**

EHS will complete a thorough safety inspection by the end of 2019 at all CAW facilities (JTH, Maryland Avenue Complex, Clearwater, Wilson Plant, Ozark Point Plant, Lake Maumelle, Lake Winona, and all MWM facilities) and will work with staff to ensure that all hazards identified during those inspections are corrected.

Every CAW vehicle will be inspected at least once; however, most vehicles will be inspected by EHS or department supervisors several times throughout the year.

**Objective 3:** Inspect all construction sites to ensure adherence to all Federal and State regulations and all CAW rules and regulations

**2019 Accomplishments**

EHS anticipates visiting over 200 job sites by the end of 2019. During these safety inspections, EHS personnel observe the operations, evaluate possible safety concerns, OSHA compliance, and public safety awareness, and note any corrections of safety issues found during job site visits.

**2020 Goals**

EHS will continue to implement recommendations of the Vulnerability Assessment in 2020, providing additional safety and security enhancements as needed at various Utility facilities and updating or creating Emergency Action Response Plans for a number of scenarios identified by the Vulnerability Assessment.

EHS will create new safety policies as well as updating current safety policies included in the Utility Safety Manual.

EHS will work closely with the Distribution Department to conduct a utility-wide electrical safety survey. This will include creating standard operating procedures while working near high voltage services and equipment.

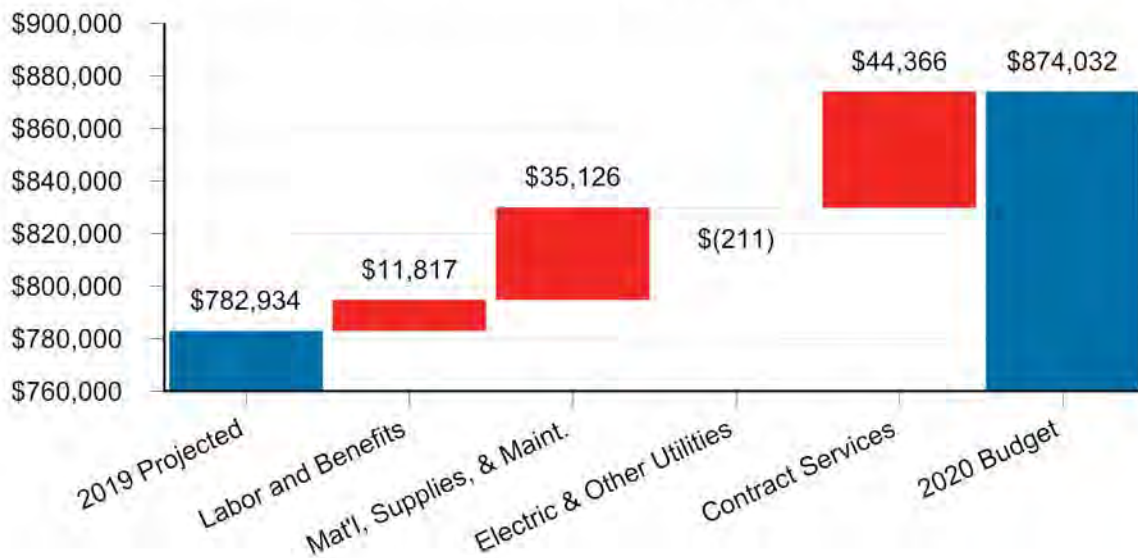
EHS will continue developing “self-paced” online safety training in 2020. This proficiency-based model will allow employees to have a schedule that meets their individual training requirements.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Safety Training Classes	114	115	120
Safety Training Hours (cumulative)	3,169	3,200	3,200
Workers' Comp Claims	9	10	10
Workers' Comp Claim Costs	\$15,806	\$50,000	\$125,000
Workers' Comp Lost Time (days)	0	20	0
"At Fault" Vehicular Accidents	7	6	6
"Not At Fault" Vehicular Accidents	9	4	6
Perform all Facility and Vehicular Inspections	Y	Y	Y

## Environmental Health & Safety - Expense Summary

	2018 ACTUAL	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 437,247	\$ 500,876	\$ 486,778	\$ 512,693
Materials, Supplies, and Maintenance	60,902	117,370	183,700	152,496
Electric and Other Utilities	1,360	1,651	1,940	1,440
Contract Services	156,678	163,037	179,774	207,403
<b>Total Expenses</b>	<b>656,187</b>	<b>782,934</b>	<b>852,192</b>	<b>874,032</b>
<b>Total Capital Costs</b>	<b>72,176</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Total Environmental Health &amp; Safety</b>	<b>\$ 728,363</b>	<b>\$ 782,934</b>	<b>\$ 852,192</b>	<b>\$ 874,032</b>

## Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# WATERSHED PROTECTION

The Watershed Protection Section provides the Utility’s work related to watershed management, watershed stewardship, and water quality monitoring. The Watershed Management Plan (WMP) is the Utility’s source water protection program for its two water supply reservoirs, Lake Maumelle and Lake Winona. The WMP's goals are to protect, restore, and enhance the natural environment of these two reservoirs' watersheds through a variety of pollution prevention, watershed, and source water protection approaches as part of an overall strategy to maintain and enhance ecological and community sustainability. The activities of the WMP ensure CAW is cognizant of and attentive to the impacts its watershed decisions have on current and long-term watershed health. Major responsibilities of the program include managing and monitoring water resources, managing and monitoring utility-owned forested and non-forested lands and recreation uses and use areas, managing and inspecting landscape-scale impacts and opportunities, promoting and conducting education and stewardship initiatives for homeowners and private landowners, and promoting and conducting watershed and utility-specific education and outreach.

CAW ensures high quality water at the customer’s tap through a robust water quality monitoring program for both lakes, select tributaries, water treatment, and delivery systems. CAW conducts targeted studies initiated within the various elements of the system in order to better understand and assess water quality and implications for management and treatment

**Mission**

The Watershed Protection staff protect public health and promotes the economic vitality of central Arkansas by providing customers uninterrupted service of high-quality drinking water that meets all Federal and State water quality regulations.

<b>EUM Attribute:</b>	Product Quality
<b>Goal:</b>	Provide an uninterrupted supply of high-quality potable water that meets or exceeds all SDWA regulations

**Objective 1:** Continue land acquisition per WMP to provide greater source water protection.

### **2019 Accomplishments**

Further refinements of the staff-developed evaluation matrix for property acquisition (for evaluating and ranking properties for purchase) were made to include additional ranking criteria. In 2019, an additional 1,146 acres of conservation lands were purchased, and staff is currently evaluating an additional 1,358 acres.

#### **Objective 2: Maintain or increase Lake Water Quality Monitoring**

### **2019 Accomplishments**

Under an ongoing agreement with U.S. Geological Survey (USGS), long term, ongoing water quality and flow monitoring continues for Lake Maumelle and its tributaries. As a part of the program, staff contributed \$22,500 of in-kind services for work associated with the 2019 monitoring plan, thereby reducing costs associated with relying solely on USGS personnel. Additional commitments made by USGS staff have led to investigating real-time modeling of Lake Maumelle reservoir water quality. Additional staff have been added whose primary responsibility is monitoring and assessment of the watershed, tributaries and reservoir. This increased frequency of reservoir monitoring will allow for better decision making towards impairment and treatment needs.

The first bathymetric survey (underwater topographic features) of Lake Maumelle was completed of the intake embayment area. This was designed to estimate sedimentation near the intake structure for potential future removal. Additional bathymetric surveying will be conducted in other suspected areas of sedimentation.

#### **Objective 3: Comprehensive Ecology Management**

### **2019 Accomplishments**

In 2019, staff has conducted 686 acres of prescribed burning with another 486 acres scheduled to be burned this fall. 341 acres are planned for ecological thinning in the summer/fall of 2020.

Staff are in the early implementation of a more comprehensive, long-term monitoring program of the lakes and tributaries. This monitoring will provide a better assessment of watershed and reservoir health as well as provide a method for prioritizing management efforts.

Work continues with the U.S. Army Corps of Engineers on both a drought resiliency study as well as a study to understand and improve the hydrologic function of the Forest Legacy Project (FLP) site. Enhancing and restoring these functions is part of a larger restoration and management plan for the FLP site.

A pilot program is in process to utilize satellite telemetry to develop information for land-based changes to land use / land cover, and to ascertain the efficacy of its use for water quality monitoring.

## **Other 2019 Accomplishments**

**Source Water Protection** - Removal of the low-water crossing near Hwy. 10 on the Forest Legacy Property (FLP) and placement of bridge. This removal proactively addresses a failing crossing, which would have resulted in producing an influx of sediment into the Maumelle River system. Removal of the structure opens the waterway to allow continuous flow; improve flood attenuation; and provides improved passage for spawning fishes. Additionally, the bridge will provide CAW with continual access to the FLP site.

Completed the study on Potential Mountain Bike Impacts on the Ouachita National Recreation Trail. CAW currently has a prohibition on mountain biking on trails in the watershed, and pressures from stakeholders to open mountain biking on the OT was a driver for the study. Completed renovations of the FLP cabin. Renovating the cabin was among the many building and structure improvements that have taken place at the FLP site that help make it a central location for watershed management activities. Through renovation, CAW can provide field staff with a climate-controlled office; breakroom and workspace. Demolition of two dilapidated houses also occurred which was to prevent vandalism and trespass.

Completed looping the trail at Bufflehead Bay use/demonstration area. As an extension of the watershed education efforts, the trail was extended through the forest management demonstration area at Bufflehead Bay. This area is a popular spot to learn about how proper forest management can improve or maintain water quality and how the management efforts visually changes the landscape.

## **2020 Goals**

The Watershed Protection staff will continue to build relationships with local, state and Federal agencies, as well as non-governmental organizations to advance CAW's water quality goals. Existing relationships have led to additional project funding, enhanced public education and outreach, completion of wildlife surveys, and technical assistance for forest management. Further refinement in the assessment methodology applies to both watershed and reservoir health.

Reforestation efforts are planned for 20 acres to improve riparian buffer. In order to enhance the Utility's conservation management objectives, staff will conduct 1,400 acres prescribed burns as well as conduct 553 acres of ecological thinning.

Staff will continue to focus on increasing property holdings and easements in key watershed areas and building and retaining partnerships essential for success of the Program's objectives. Staff will also continue to find and implement creative strategies for watershed management and water quality enhancement through active management approaches,



increased monitoring efforts; strategic education and outreach events and publications, and by seeking unique opportunities for funding projects that are congruent to the mission and goals of the department and utility.

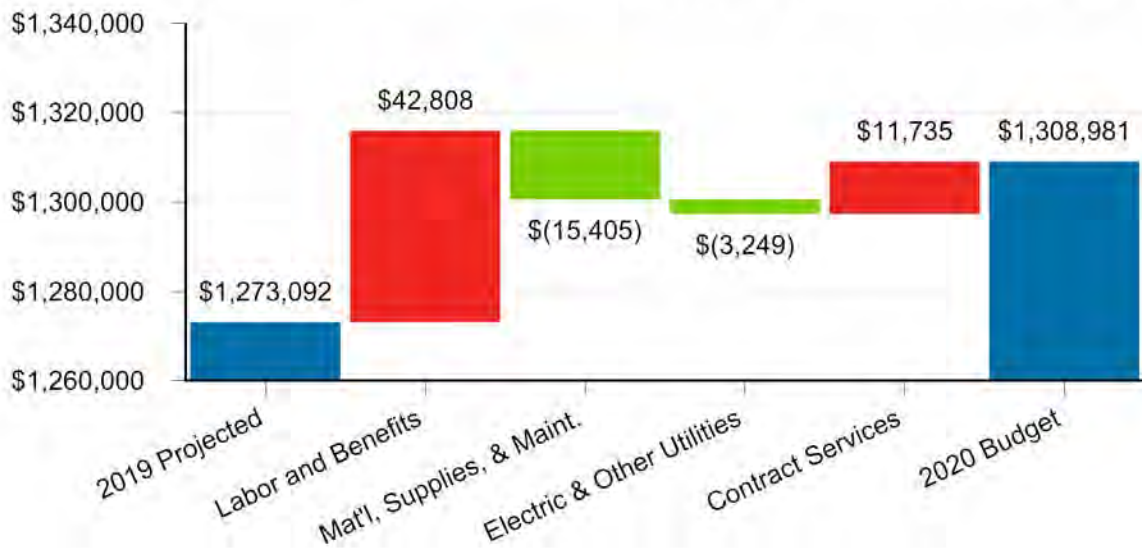
<b>Performance Measures</b>	<b>2018 Actual</b>	<b>2019 Estimated</b>	<b>2020 Budget</b>
Land Acquisition (cumulative acres of fee-simple and conservation easements)	1,201	1,146	1,000
Acres Treated with Prescribed Burning (cumulative acres)	398	1,172	1,400
Acres Treated with Ecological Thinning (cumulative acres)	433	341	553

### **Watershed Protection - Expense Summary**

	<b>2018 Actual</b>	<b>2019 Projected</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Labor and Benefits	476,268	556,304	580,953	599,112
Materials, Supplies, and Maintenance	80,865	119,875	145,563	104,470
Electric and Other Utilities	3,701	6,009	4,800	2,760
Contract Services	548,407	590,904	633,726	602,639
<b>Total Expenses</b>	<b>1,109,241</b>	<b>1,273,092</b>	<b>1,365,042</b>	<b>1,308,981</b>
<b>Total Capital Costs</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Total Water Quality &amp; Watershed Protection</b>	<b>1,109,241</b>	<b>1,273,092</b>	<b>1,365,042</b>	<b>1,308,981</b>

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### Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# SPECIAL PROJECTS

The Special Projects Section was established in late 2018 to manage the Utility's CIS replacement project. The Section consists of six experienced members from various departments within the Utility and is led by the Senior Project Manager. This team will dedicate most of 2020 to completing the configuration of Cayenta Utilities CIS, converting customer data from the legacy system, testing the new system, documenting critical business processes, and providing support for the new system during the post Go-Live stabilization period. Go-Live is scheduled for July of 2020 with post Go-Live support estimated to be three to six months.



The CIS replacement project, dubbed the Pinnacle Project, will leverage current technology to transform CAW's current billing and customer service processes to be more efficient, while improving the overall customer experience. Implementing industry leading practices improve the efficiency of the Utility by:

- eliminating redundant processes,
- reducing the number of manual exchanges to accomplish tasks,
- expanding cross-training of staff, and
- providing improved reporting to support decision making.



## Pinnacle Project

Scaling New Heights

### What is it?

Leveraging technology to achieve peak performance.

### Why Change?

Our current system has reached the end of support and must be replaced.

We desire to grow and exceed stakeholder expectations.

**Pinnacle** will streamline today's operations and empower CAW to reach new levels of service.

## What will be different?

	From	To
<p><b>Modernized</b> A system built on industry leading practices and contemporary technology</p>	<p>Rigid, brittle, customized software program</p> <p>Convolved and inefficient processes</p>	<p>Configurable, scalable, reliable technology platform</p> <p>Industry leading practices</p>
<p><b>Unified</b> Improved, centralized access to reports, data, and training resources</p>	<p>Undocumented decisions trees and process flows</p> <p>Multiple independent databases</p>	<p>HIVIP employees with access to knowledgebase</p> <p>Integrated business planning opportunities</p>
<p><b>Enhanced</b> Intuitive user experience for staff and customers</p>	<p>Limited antiquated options for customer engagement</p>	<p>Robust customer self-service portal</p> <p>Higher level of customer service</p>

**2019 Accomplishments**

In 2019, the Pinnacle Team completed several aspects of the Cayenta CIS Implementation Project. The project began with an Analysis and Design (A&D) phase. This phase, completed in April, consisted of system overview training, business process review, and the initial configuration of the new system. After A&D the project shifted into the Functional Testing phase.

Functional testing used sample data created during the testing process and focused mainly on the core system functionality such as customer, account, and location creating, installing meters, taking meter reads, billing a customer, making adjustments, and various other basic system capabilities. Functional testing was completed in July with a pass rate of 96%.

Parallel to Functional Testing, data conversion mapping was developed from the legacy system to the new CIS. There are seven (7) iterations of data conversions planned for the project. Data Conversion 1, a partial data conversion completed in June, focused on the basic building blocks of the system (persons, accounts, locations, services, and installed assets). Results were consistent with expectations; however, several issues were identified during the auditing process, and visual validation of the results. Data Conversion 2 was delivered to CAW in September. Conversion 2 was a full conversion while also addressing

many of the issues identified during Conversion 1. Data Conversion 2 supported the next round of testing, Integration Testing, which also occurred in September.

The Project requires many items that are categorized as custom development. A few modifications are to the core application, but, for the most part, the custom development will consist of building reports and portals as well as interfaces to other systems. As of August, the majority of the custom items have finalized designs, with many already available for unit testing.

Integration Testing began in September and consisted of four rounds, each four weeks long. This phase will continue into early 2020. During Integration Testing converted data from the legacy system will be used. Unlike Functional Testing, which focused on individual components and capabilities of the new system, Integration Testing will introduce a process-oriented approach. Third-party system interfaces, software modifications, and other custom developed functionality will be tested as part of end-to-end business processes.

Throughout the project, as business processes significantly changed, and critical processes are identified, they were marked for follow-up documentation. The Project Team will work with consultants, EMA, to implement leading industry practices as processes are redesigned. 75 meter-to-cash processes are slated to be documented with workflow diagrams and step-by-step SOPs.

Training planning and training content development will be a primary focus during the final quarter of 2019. CAW staff will develop training materials and a training approach that is tailored to screens and processes developed in the new system. “Just in Time” end user training will be held in early 2020 over a 10-week time frame in anticipation of Go-Live in July of 2020.

## **2020 Goals**

Project tasks and goals for 2020 include:

- Complete system configuration
- Complete custom modifications, reports, and portal
- Complete Customer Self Service website implementation
- Complete interfaces between the CIS and other Utility systems.
- Complete data conversion activities
- Complete Integration Testing
- Complete User Acceptance Testing
- Communicate changes and impacts to stakeholders
- Finalize training plan and training content

- Finalize hyper-care plan
- Deliver end-user training
- Go-Live with new system in July of 2020
- Deliver ongoing refresher training
- Post Go-Live support
- Implement phase two project goals such as CSR live chat and water outage notifications

## Special Projects - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 114,713	\$ 153,283	\$ 142,883	\$ 10,231
Materials, Supplies, and Maintenance	36,343	15,185	5,100	34,900
Electric and Other Utilities	720	5,400	21,600	27,500
Contract Services	32,685	65,337	54,340	89,340
<b>Total Expenses</b>	<b>184,461</b>	<b>239,205</b>	<b>223,923</b>	<b>161,971</b>
<b>Total Capital Costs</b>	<b>31,597</b>	—	—	—
<b>Total Special Projects</b>	<b>\$ 216,058</b>	<b>\$ 239,205</b>	<b>\$ 223,923</b>	<b>\$ 161,971</b>

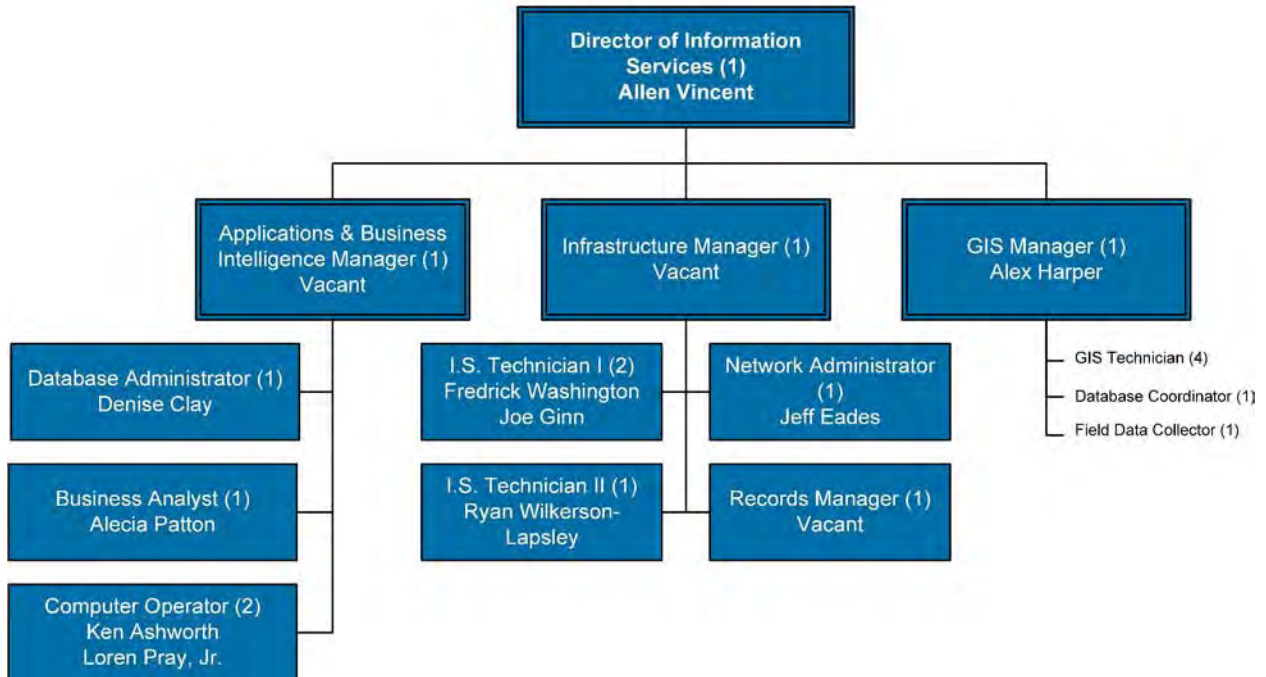
### Change by Natural Classification - 2019 Projected to 2020 Budget



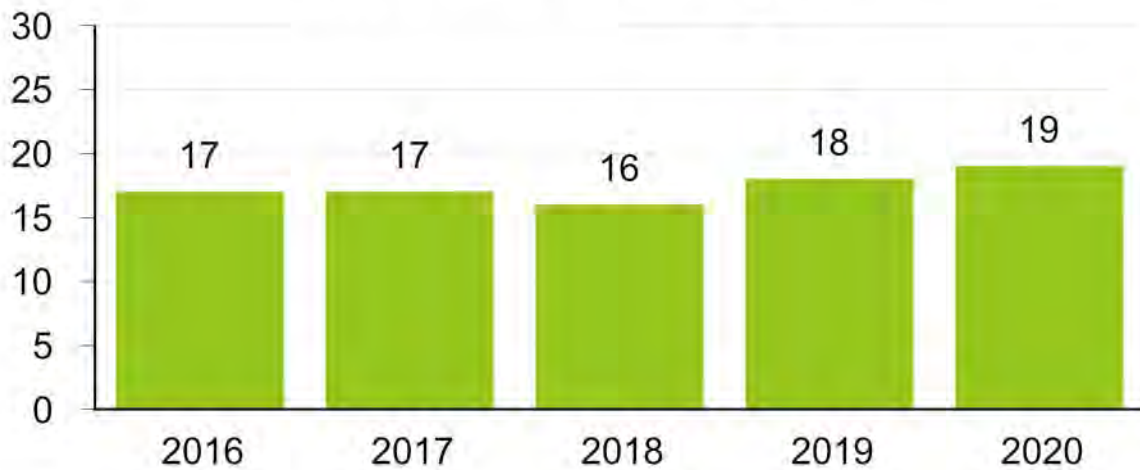
Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# INFORMATION SERVICES DEPARTMENT

Effective: January 1, 2020



## Departmental Staff by Year

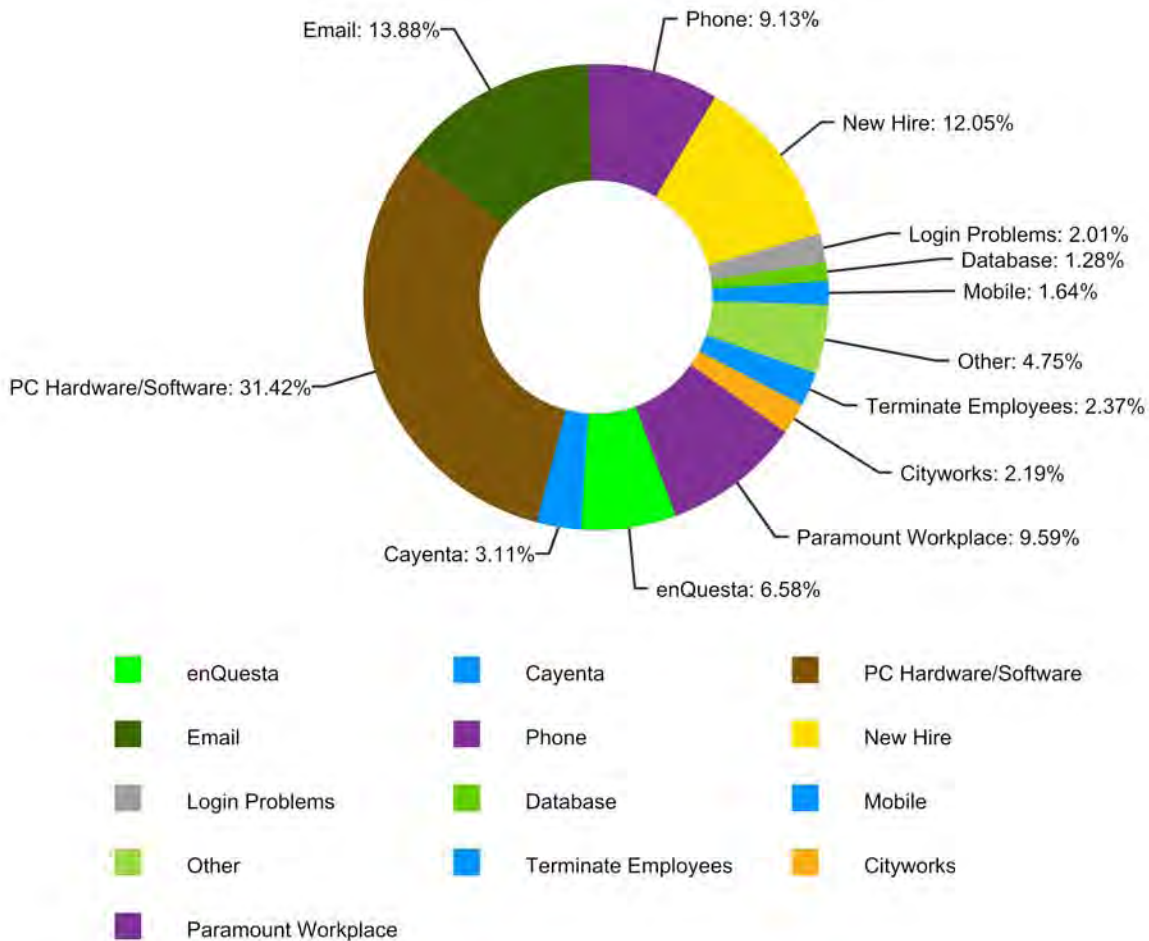


## INFORMATION SERVICES DEPARTMENT

The IS Department maintains the computer hardware, software, and other electronic infrastructure that is necessary to support the day-to-day and mission-critical operations of the Utility. There are thousands of computer systems in place and hardware devices that make up CAW's wide area network to support the Utility's range of operations, from the Customer Service Call Center to the control of remote distribution system facilities.

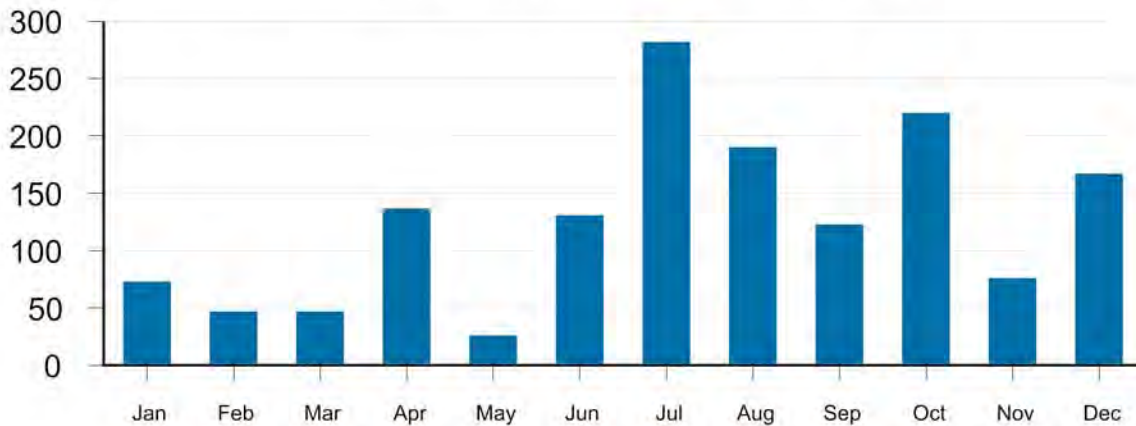
The IS Department manages and maintains the devices and systems, provides appropriate support services, ensures availability 24 hours per day, and supplies security for data maintained on the various systems. The department also researches, evaluates, and implements emerging technologies and approaches in order to improve technological automation of the Utility and translate these investments into increased efficiency and productivity for all areas of operations.

### 2018 Completed Tickets By Type (Actual)





## 2018 Completed Help Desk Tickets



### **Mission**

The IS Department provides the Utility with leading-edge electronic infrastructure that ensures constant reliability and security for core elements of the Utility's operations.

<b>EUM Attribute:</b>	Operational Optimization
<b>Goal:</b>	Research and test current computer software and hardware that are on the market so that CAW implements leading industry practices in automation that will cost-effectively improve the Utility's operations, business practices, and service to customers.

**Objective 1:** Information Technology Governance

### **2019 Accomplishments**

The Information Technology Governance Team began its work at the end of 2018 with bi-weekly meetings to help the department with prioritizing its projects. During that time, a charter and formalized forms were created for planned projects. The team is a great asset to CAW and provides support for the department.

**Objective 2:** Mobile Operating Environment

### **2019 Accomplishments**

One of the 2019 goals was to move to the mobile environment. One of the projects was the upgrade of the Itron meter reading system. The meter reading

system upgraded from Itron's Multi-Vendor Reading System to Itron's FCS. The upgrade gave CAW the ability to read meters with a mobile device. Testing of this process began in November of 2018, and full deployment occurred during May of 2019 through the use of iPhones. The iPhones allow the readers to load and unload routes while out in the field and allows office staff to monitor the route status.

**Objective 3:** Phone System/Wide Area Network (WAN) & Internet Speed Increase

**2019 Accomplishments**

In preparation for the Cayenta Billing system upgrade, CAW updated Cisco Call Manager from version 10.5 to version 12.5 to give Customer Service Representatives the ability to chat with customers. The Cisco CM upgrade was completed in July of 2019, while the chat feature is still in the testing phase but will be completed before the Cayenta upgrade. Staff increased the Internet speed and the WAN connection speed to all CAW locations.

**Objective 4:** Setup Integration Testing Environments between Cityworks and Cayenta; Cayenta and GIS

**2019 Accomplishments**

Beginning in early 2019, the planning phases of each integration began. The GIS section has worked closely with the Pinnacle Team on coming up with the required criteria for each successful integration. The main goals of the GIS section were to create the testing environments for developers to access during testing. The testing environment for the Cityworks and Cayenta integration required a new Cityworks test site and database to be created and proper access granted to developers. While beginning the testing phase it was determined that this could be used as a way to test a Cityworks upgrade from version 15.1.2 to the latest version 15.4.2, which is needed prior to the implementation of Cayenta. Developers are using this environment for testing. This integration will allow similar workflow for field users that currently use enQuesta to Cityworks integration. This integration allows enQuesta orders to be sent to Cityworks, worked by the end users, and then sent back to enQuesta for office personnel to view.

**Objective 5:** Transition Distribution iPad Users to Microsoft Apps

**2019 Accomplishments**

This project came about as a need to make document editing easier for field staff using iPads. The current process of using MaaS360's Document Editor has caused difficulties for some staff while out in the field. To simplify the process it was determined the use of Microsoft Word, Excel, and OneDrive/Sharepoint

would be the best way to move forward. Most end users have used Word and Excel in the past, making workflow a more intuitive and easily-navigated process. Several different possible ways of achieving the end result have been tested, and there is currently a test group consisting of Distribution staff working with documents and giving feedback on the processes. After the current testing phase, a small test roll-out will be performed and it is expected a complete roll-out for Distribution will be later on in 2019.

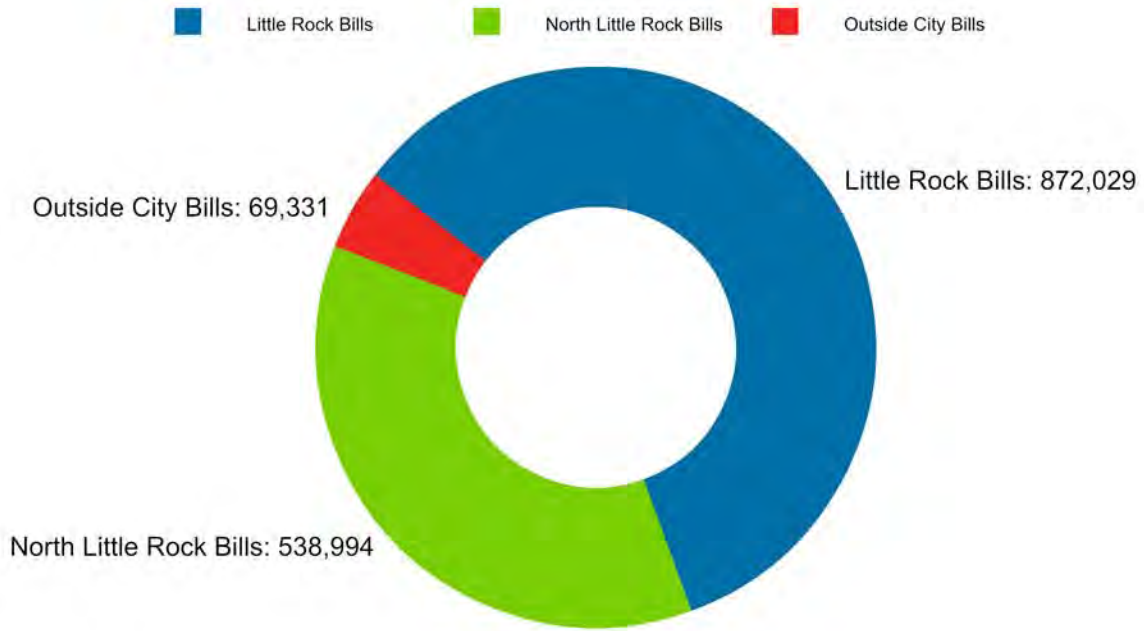
## **2020 Goals**

In 2020, IS will continue to implement the recommendations of the 2017 ITMP. The CIS replacement will be top priority. Implementation of the new CIS is expected to play a prominent role in 2020 IS staff commitments. Other systems anticipated to be implemented as a result of ITMP recommendations are Human Resources Time & Attendance System, Document Management System, Project Management and Collaboration. It is also anticipated that existing systems such as Project Management, GIS, FIS, and Asset Management / Intelligent Water Systems will be enhanced and expanded as a result of the ITMP. The GIS and Cityworks work management system will be upgraded to new and redundant hardware to streamline failover during disaster situations. Both systems will also see upgrades to software versions that enable more mobile-based web applications. Network Switches that can support faster speeds will be purchased and an uninterruptible power supply (UPS) will be added at the JTH facility to provide back-up power when needed in order to better uptime for all the computer systems.

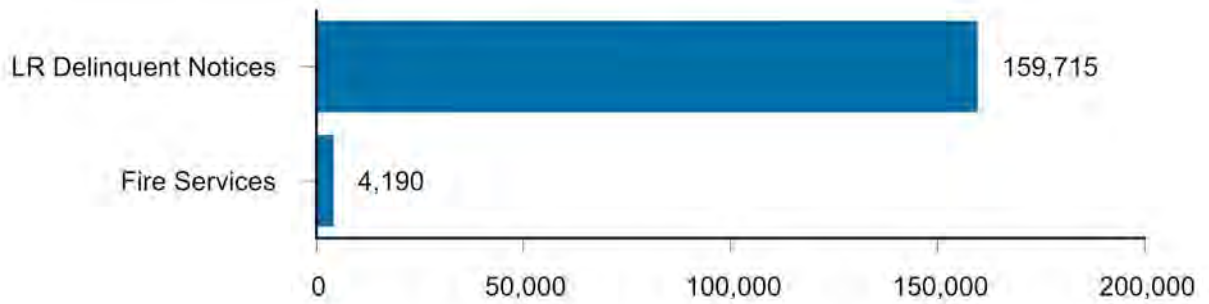
IS will add additional resources to the Cyber Security protection. This service will know who and what is connected to the environment at all times, know where the vulnerabilities are on CAW's assets to avoid compromises and intrusion detection, continuously monitor endpoints to detect threats and changes to critical files, as well as correlate and analyze security event data from across the network and respond. Behavioral monitoring and security and compliance reporting are two additional components that will enhance this service.

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## Bills Printed Annually



## Non-Bill Printings

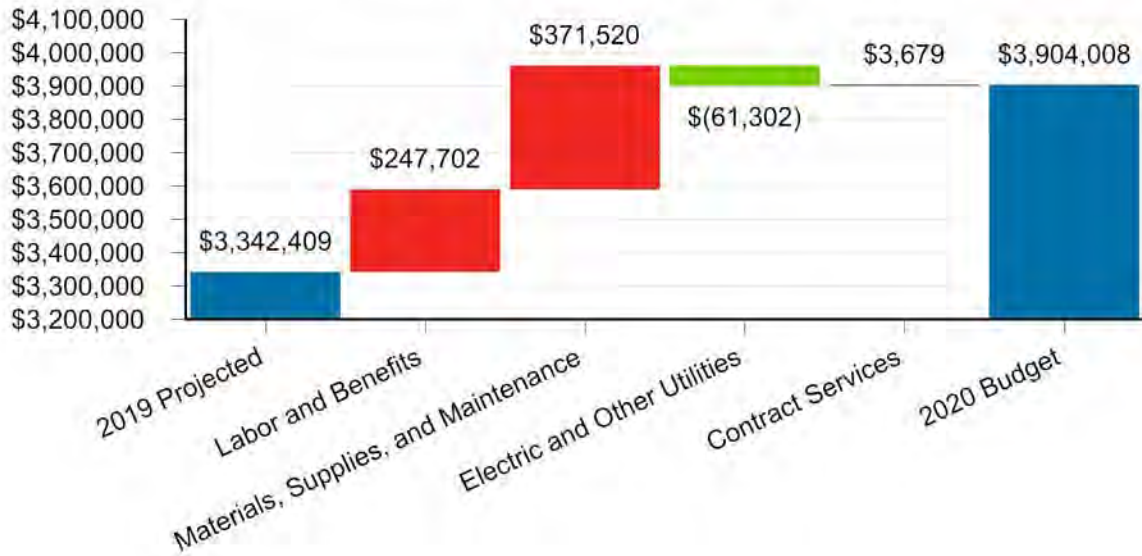


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## Information Services - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 1,581,820	\$ 1,615,936	\$ 1,724,041	\$ 1,863,638
Materials, Supplies, and Maintenance	1,137,740	1,126,409	1,087,710	1,497,929
Electric and Other Utilities	459,544	567,302	462,160	506,000
Contract Services	28,593	32,762	31,962	36,441
<b>Total Expenses</b>	<b>3,207,697</b>	<b>3,342,409</b>	<b>3,305,873</b>	<b>3,904,008</b>
<b>Total Capital Costs</b>	<b>3,030,999</b>	<b>—</b>	<b>5,372,870</b>	<b>3,086,130</b>
<b>Total Information Services</b>	<b>\$ 6,238,696</b>	<b>\$ 3,342,409</b>	<b>\$ 8,678,743</b>	<b>\$ 6,990,138</b>

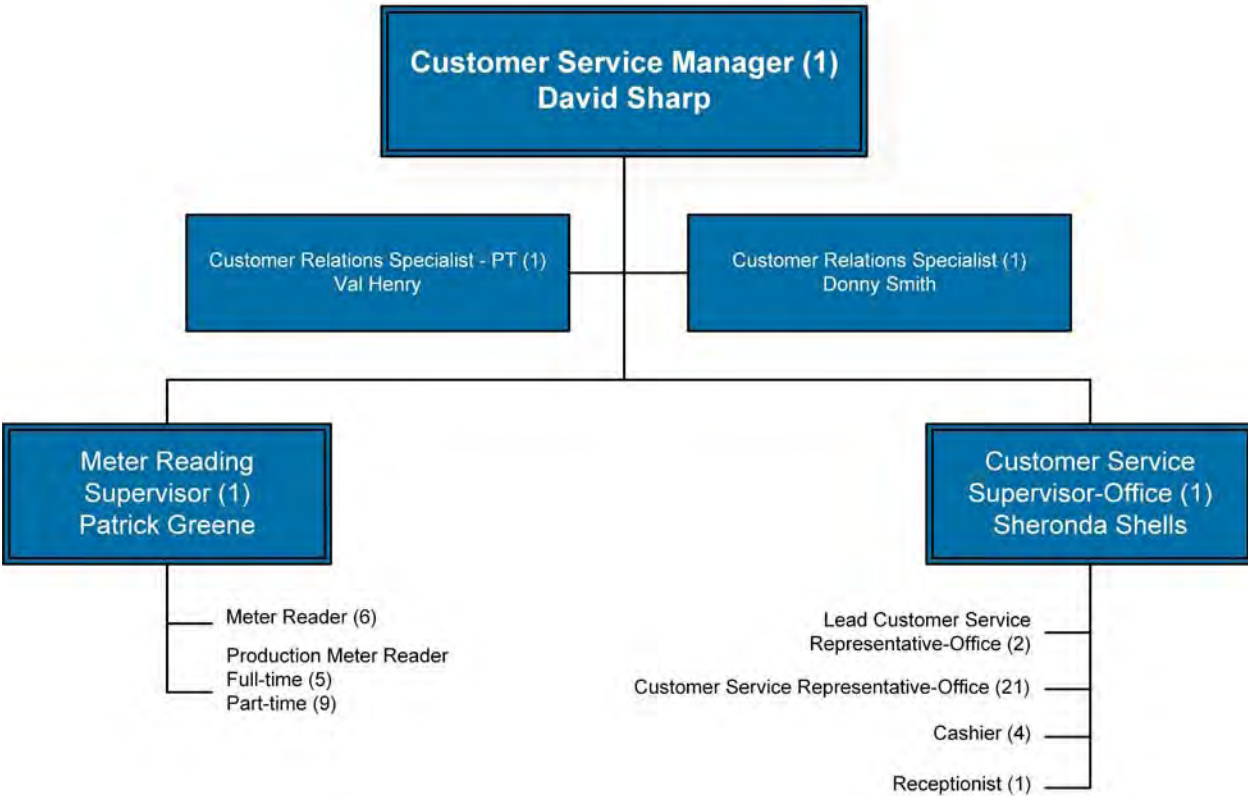
### Change by Natural Classification - 2019 Projected to 2020 Budget



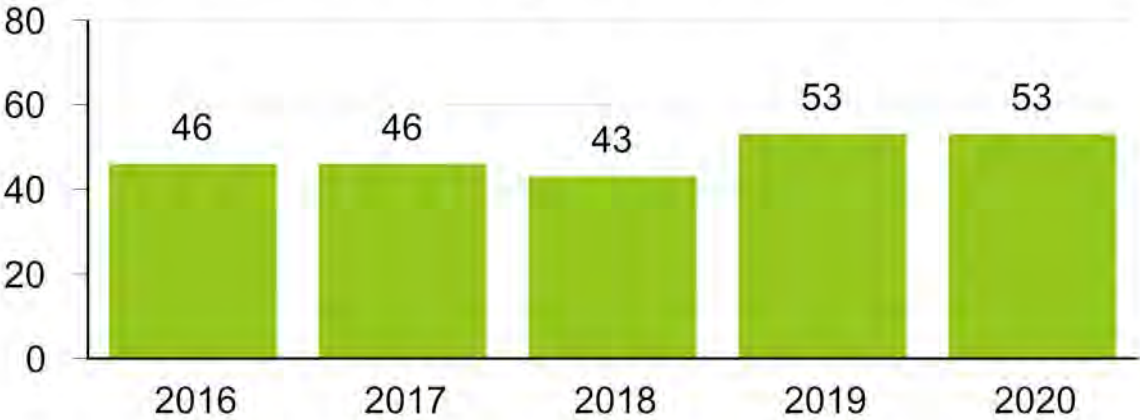
Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# CUSTOMER SERVICE DEPARTMENT

Effective: January 1, 2020



## Departmental Staff by Year - Customer Service



# CUSTOMER SERVICE DEPARTMENT

The Customer Service Department is the Utility's primary contact for customers. This department provides information to customers through all phases of the account management process: creation, metering, collection, troubleshooting, transferring, and closing of accounts. The department's responsibilities include meter reading, customer relations, call center operations, and cashiering.

## Mission

The Customer Service Department is committed to providing quality service to customers in ways that are helpful, caring, and responsive. Customers include water customers as well as the departments within the Utility. The Department's goal is to offer services that not only meet but clearly exceed external and internal customer expectations. The department accomplishes its mission through teamwork, communication, courtesy, integrity, and innovation and takes responsibility for the efficient and effective delivery of quality service.

<b>EUM Attribute:</b> Customer Satisfaction
<b>Goal:</b> To provide customer service that exceeds expectations

**Objective 1:** Maintain abandoned calls percentage at or below 4%.

### 2019 Accomplishments

As of September 30, 2019, CAW's Call Center had fielded over 161,315 customer calls with an average abandonment rate above utility goal (4%) at 5.32%. The call volume represented an increase of over 8,386 calls than the same period last year. Abandoned percentage has decreased as a result of returning to full staff beginning in the second quarter of 2018. Expectation is that abandoned percentage will continue the decreasing trend for the remainder of 2019 and end the year slightly above goal.

**Objective 2:** Maintain average call answer time at or below 40 seconds.

### 2019 Accomplishments

The average speed of answer (ASA) year-to-date as of July 2019 was 73 seconds. This is higher than CAW's goal of < 40 seconds. The major driving factor for being above goal was a heavy call center absentee rate in January 2019 that resulted in a monthly ASA of over 120 seconds. While this was markedly higher than the preferred service level, since that time there has been

a positive trend of improvement. This positive trend is expected to continue and end the year at approximately a 60 second ASA.

## **Other 2019 Accomplishments**

As of January 1, 2019, CAW consolidated its operations at North Little Rock City Services into the downtown Little Rock administration facility. This was necessary due to NLR municipal government reorganization. NLR residents were educated as to their alternate payment options and locations in advance so the transition was seamless.

The business partner CAW contracts with for meter reading equipment notified us that support for the current handheld meter reading device would end in 2020. CAW searched for alternate devices that fit the Utility's needs and transitioned the meter reader group over to a smart phone model reading device during quarters one and two of 2019. As of the third quarter, this group is solely using iPhones for meter reading. This allows the data to come in over the 4G network and helps us gain time efficiency without the need for the employee to report to an office to upload/download the data.

CAW converted to the iTron Field Collections System (FCS) in the first quarter of 2019 for its meter reading operations. FCS is an industry-leading data collections system that works with both direct read and remote read capability. As CAW utilizes both methods to collect readings, this system is an ideal fit for regular operation.

As of August 2019, CAW implemented a Full-Time Meter Reader position that will result in the ability to obtain approximately 30,000 more readings per month. Volume gains will allow for improved accuracy of customer billing, better schedule adherence, and reduced overtime costs in several CAW Departments.

## **2020 Goals**

Customer Service's focus during 2020 will be working closely with the Pinnacle Project Team to implement CAW's new billing and customer services system platform from Cayenta Utilities. The new software offers much-needed upgrades and will allow CAW to streamline many of its current business practices, which will simplify tasks for both internal and external customers alike. Customer Service will collaborate with the IS Department in reviewing the Utility's SOPs and make improvements that will allow both increased efficiency and cost savings.

One of the enhancements in the Cisco Finesse telephony platform is the ability for CAW to offer a live chat feature through the website. Customer Service will partner with the Communications Department to integrate this feature into the new web portal, which is set to debut in late 2020. This feature, along with the new CIS features in Cayneta, will greatly enhance the customer service experience.

CAW is researching converting wholesale meter customers to Advanced Metering Infrastructure (remote reading) capability. This would allow five to six hours per week more



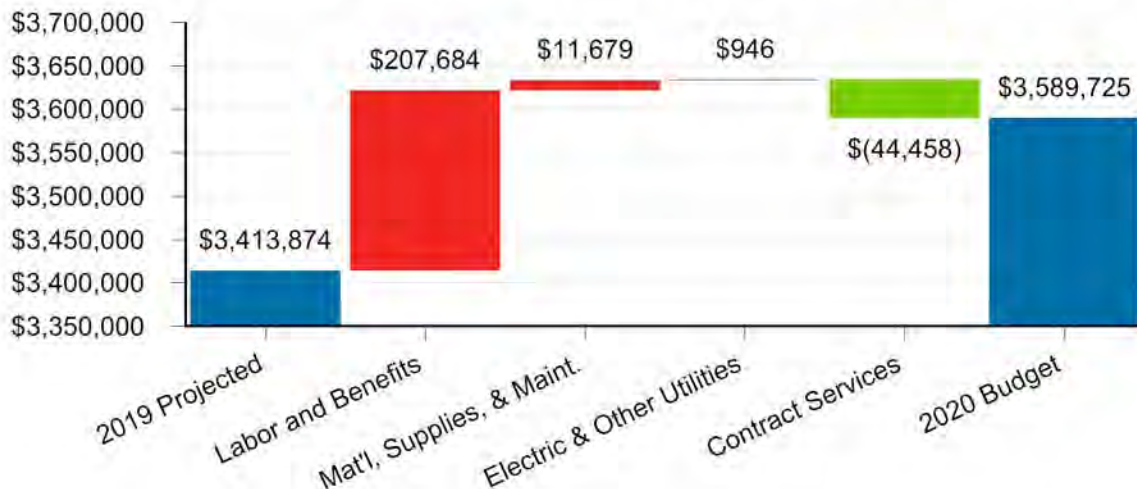
production of the meter-reading staff and reduce reading costs on these accounts. Additionally, this would allow for more closely monitoring peak and off-peak usage per contractual agreements.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Abandoned Calls Percentage	5.70%	5.05%	<4.00%
Average Call Answer Time (in seconds)	75	68	<40
e-Bill Customers	12,516	17,125	20,482

### Customer Service - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 3,018,357	\$ 3,268,509	\$ 3,364,433	\$ 3,476,193
Materials, Supplies, and Maintenance	49,272	37,101	35,774	48,780
Electric and Other Utilities	15,110	134	960	1,080
Contract Services	70,927	108,130	45,318	63,672
<b>Total Expenses</b>	<b>3,153,666</b>	<b>3,413,874</b>	<b>3,446,485</b>	<b>3,589,725</b>
<b>Total Capital Costs</b>	<b>80,363</b>	<b>—</b>	<b>21,000</b>	<b>—</b>
<b>Total Customer Service</b>	<b>\$ 3,234,029</b>	<b>\$ 3,413,874</b>	<b>\$ 3,467,485</b>	<b>\$ 3,589,725</b>

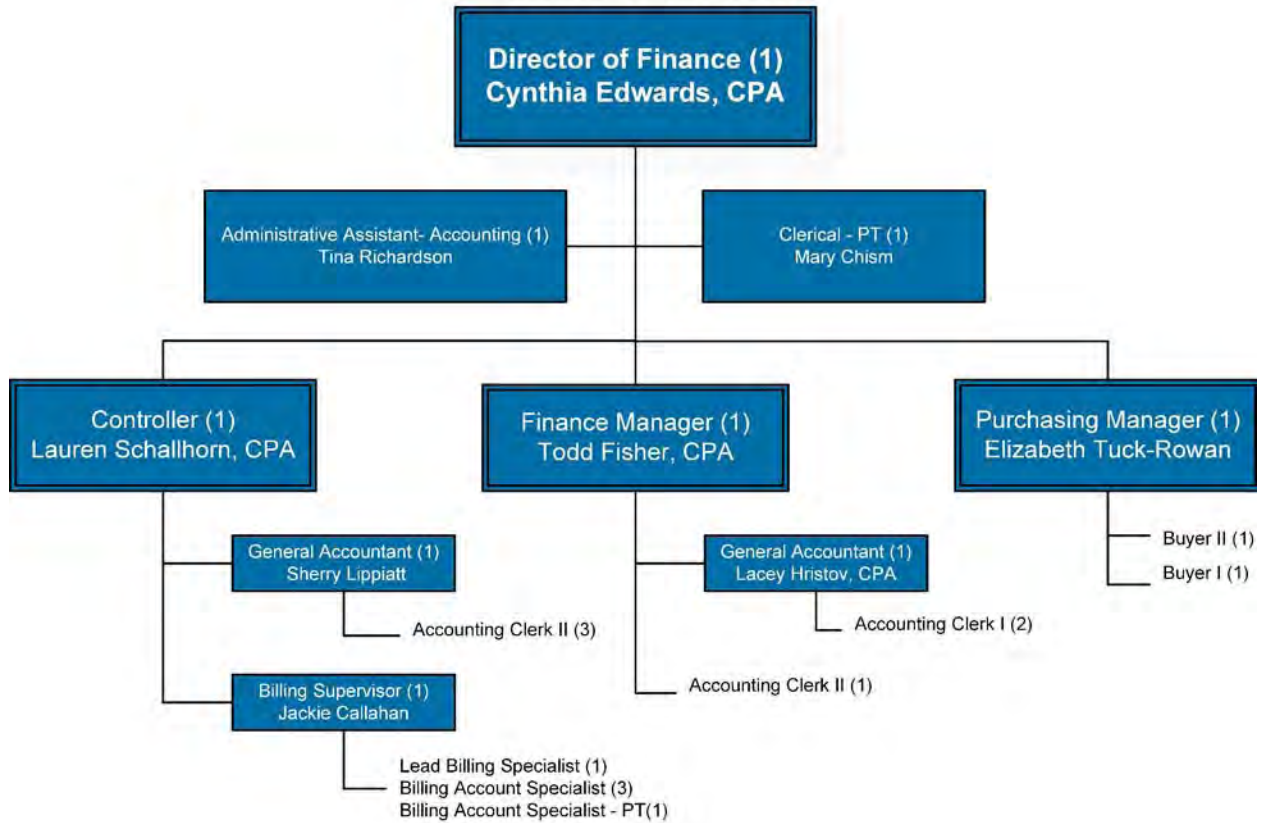
### Change by Natural Classification - 2019 Projected to 2020 Budget



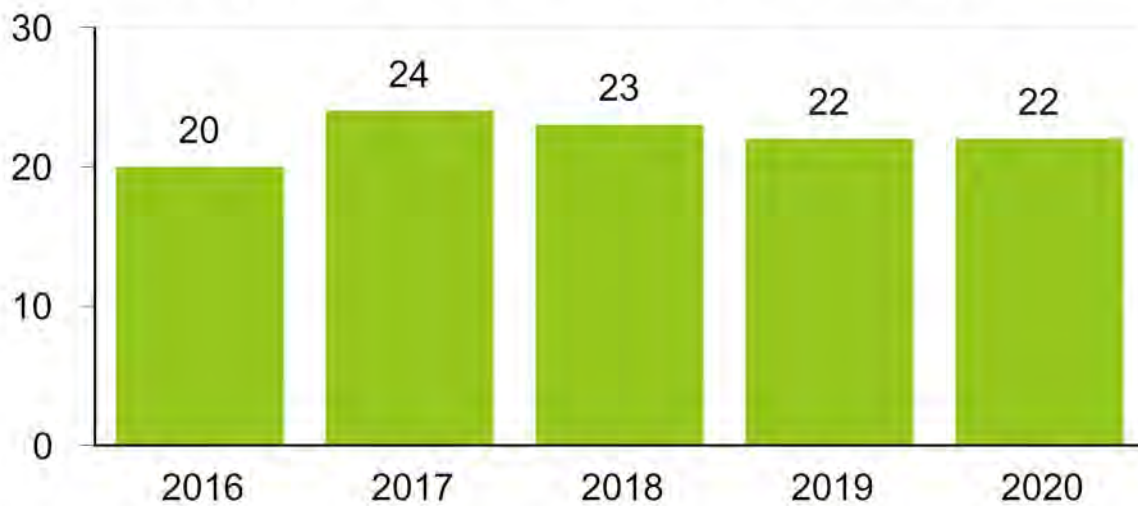
Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# FINANCE DEPARTMENT

Effective: January 1, 2020



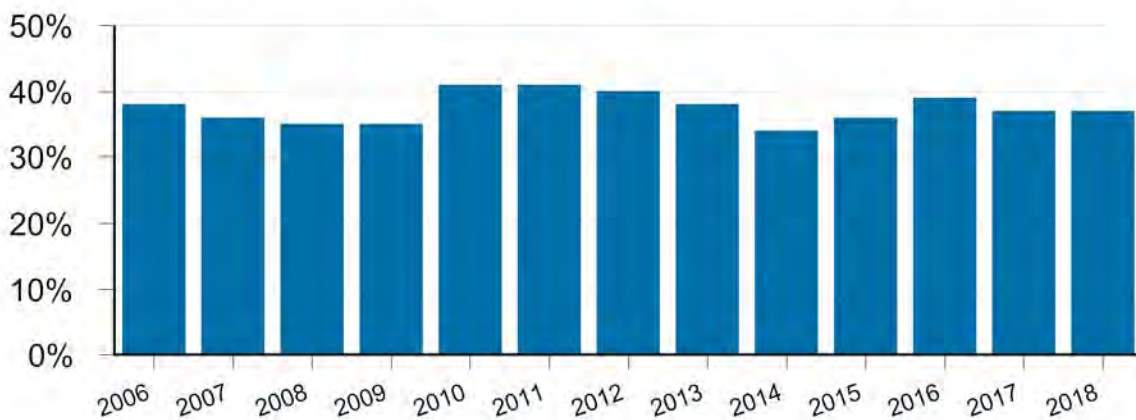
## Departmental Staff by Year - Finance



## FINANCE DEPARTMENT

The Finance Department is the Utility's business operations center. The department includes multi-disciplined and cross-functional teams of professionals involved in accounting, finance, billing, and purchasing. The department's combined 22 staff members stay attuned to the needs and expectations of external and internal customers while maintaining the rigors of cyclical mission-critical functions involving approximately 154,000 metered accounts, 15 billing partners, and monthly billings that collectively total over \$150 million annually.

### Water Revenue as % of Total Billings by Year



The department's responsibilities cover a broad range of functions that include financial planning and reporting, fiscal control, interdepartmental budgeting, billing, utility-wide purchasing, remittance processing, credit and collections, rate-making, investments, bond-issue preparation, banking relationships, business insurance coverage, and risk management.

### **Mission**

The Finance Department provides leadership and support on all financial matters ensuring efficient utility operation by providing timely and accurate information. The department ensures compliance with current regulatory requirements and provides guidance to internal and external stakeholders supporting the Utility mission and values.

<b>EUM Attribute:</b>	Financial Viability
<b>Goal:</b>	Ensure the long-term financial success of the Utility through sound financial management practices.

**Objective 1:** Distribute financial reports by the second Thursday of each month for the previous month’s activity.

**2019 Accomplishments**

Finance consistently met this goal during 2019, providing the financial reports by the target deadline.

**Objective 2:** Receive the GFOA Distinguished Budget Award

**2019 Accomplishments**

Finance met this goal again in 2019, receiving the GFOA Distinguished Budget Award for the tenth consecutive year.

**Objective 3:** Receive the GFOA Certificate of Achievement for Excellence in Financial Reporting

**2019 Accomplishments**

Finance submitted the 2018 CAFR for the GFOA Certificate of Achievement for Excellence in Financial Reporting Award for the tenth consecutive year. Award notifications were pending at the end of 2019.

**Objective 4:** Finalize and distribute Comprehensive Annual Financial Report (CAFR) by April 30.

**2019 Accomplishments**

Finance met this goal once again in 2019. The 2018 CAFR was approved by the Commission on April 11, 2019.

**Objective 5:** Maintain stabilized net revenue bond coverage at or above Commission target (currently 190%)

**2019 Accomplishments**

Finance has met this goal each of the last seven years. The 2020 Financial Plan maintains net revenue coverage above this target at 219%.

**Objective 6:** Maintain days cash on hand at or above 150 days

**2019 Accomplishments**

CAW has maintained days cash on hand at or above 150 days continuously since 2010. CAW is projected to end 2019 with 219 days cash on hand and is budgeted for 189 days cash on hand to end 2020.

**Objective 7:** Maintain debt utilization at or below AWWA benchmark (currently < 39%)

**2019 Accomplishments**

CAW has continuously maintained a debt utilization ratio well below this benchmark over its history. This continued in 2019 with a projected debt utilization of 33.10%. Budgeted debt utilization for 2020 is 33.05%.

**Other 2019 Accomplishments**

The Utility issued \$37 million in Water Revenue bonds to fund the Ozark Point Plant rehabilitation project.

CAW received the GFOA Award for Outstanding Achievement in Popular Annual Financial Reporting for its first Popular Annual Financial Report (PAFR), which was produced for the year ended December 31, 2017. The PAFR is a condensed, easy-to-read snapshot of CAW's activities for the year. Finance staff are building upon this success and submitted its second PAFR for the year ended December 31, 2018 to the GFOA for award consideration.

Finance assisted the Pinnacle Project team with both staffing resources and business process knowledge as the team worked through the analysis and design and functional testing phases of the project.

Finance provided financial analysis on potential consolidation candidates. As previously discussed on page 9, CAW conducted feasibility studies on consolidation possibilities with Paron-Owensville Water Authority, Shannon Hills Water Department, and West Pulaski Water Authority.

Finance staff assisted with decommissioning of the MWM water treatment plant and wells. The project began in 2018 and is expected to be completed in late 2019.

**2020 Goals**

The Utility plans to issue Water Revenue bonds in 2020 for solar energy projects which are projected to offset much of the Utility's current electricity usage.

Staff will assist the IS department with the DMS project and the Time and Attendance project. These projects will not only help Finance in moving toward a less paper-intensive environment but will show benefits in all departments across the Utility.

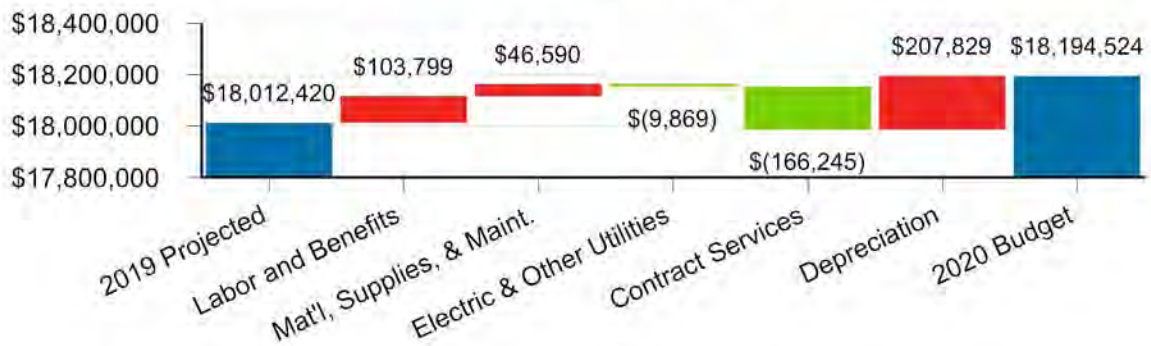
Staff will continue to support the Pinnacle Project through the remaining testing phases, user training, and Go-Live of Cayenta Utilities in mid-2020. This extremely critical project relies on a cross-departmental team of CAW subject matter experts who have been tasked with determining necessary system requirements and assisting with the integration of the selected system into CAW's operations.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Interim Financial Reports Distributed by 2 <sup>nd</sup> Thursday Each Month	Yes	Yes	Yes
GFOA Distinguished Budget Award Was Received	Yes	Yes	Yes
GFOA Certificate of Achievement for Excellence in Financial Reporting Was Received	Yes	Yes	Yes
CAFR Finalized and Distributed by April 30 <sup>th</sup>	Yes	Yes	Yes
Revenue Bond Coverage	2.94	2.64	2.19
Days Cash on Hand	284	222	189
Debt Utilization	32.04%	33.10%	33.05%

## Finance, General, and Depreciation - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 3,194,852	\$ 3,219,903	\$ 3,340,666	\$ 3,323,702
Materials, Supplies, and Maintenance	916,388	878,269	886,655	924,859
Electric and Other Utilities	101,253	114,829	108,960	104,960
Contract Services	995,544	949,409	1,006,252	783,164
Depreciation	12,687,334	12,850,010	12,770,617	13,057,839
<b>Total Expenses</b>	<b>17,895,371</b>	<b>18,012,420</b>	<b>18,113,150</b>	<b>18,194,524</b>
<b>Total Capital Costs</b>	—	—	—	—
<b>Total Finance</b>	<b>\$ 17,895,371</b>	<b>\$ 18,012,420</b>	<b>\$ 18,113,150</b>	<b>\$ 18,194,524</b>

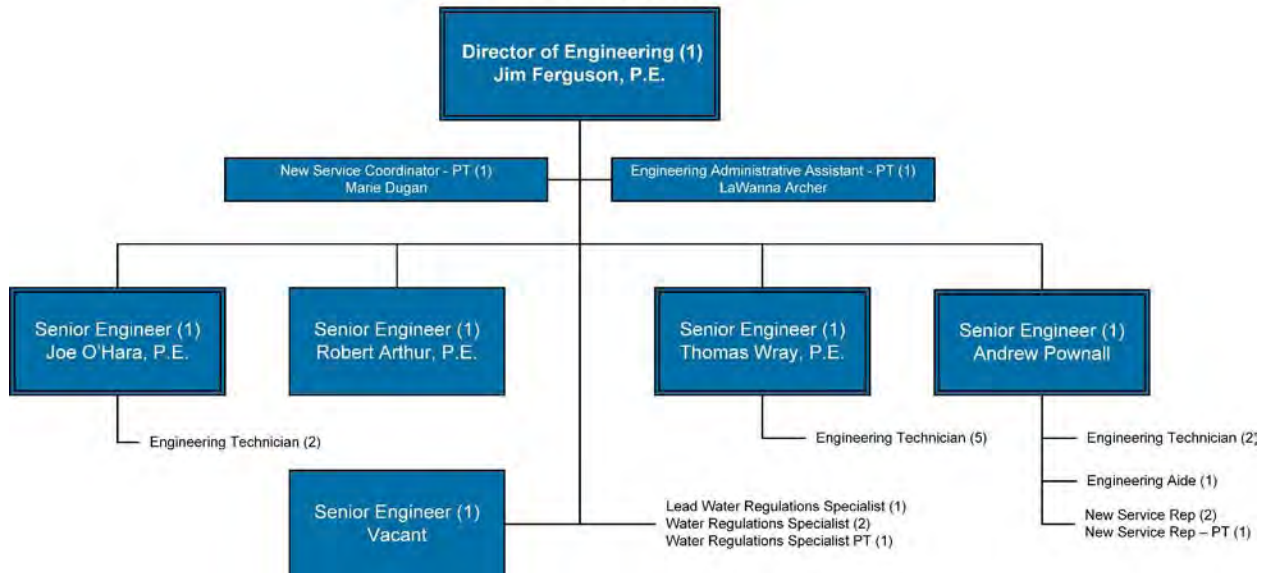
## Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# ENGINEERING DEPARTMENT

Effective: January 1, 2020



## Departmental Staff by Year





# ENGINEERING DEPARTMENT

The Engineering Department oversees the engineering, development, review, and management of all treatment, pumping, storage, and distribution improvements and the approval of residential, commercial, and large volume requests for services. The department also maintains vigilance within the service area to protect the system from contamination from backflow or cross-connections.

The Engineering Department consists of three sections: Engineering and Planning, Cross-Connection Control Program (CCCP), and New Service.

The Engineering and Planning Section works to develop and adhere to the Water Utility Master Plan for existing and future improvements and revises the Water Utility Master Plan to address and meet the growing and ever-changing dynamics of the CAW system. This section also continually reviews and modifies the CAW standard specifications, standard details, and operating guidelines to ensure that the needs of the CAW system are being met in a cost-efficient and practical manner. Planners, engineers, and engineering technicians work directly with new and existing customers, developers, consulting engineers, architects, plumbers, and contractors to plan and construct needed expansion or revision of water system facilities. The section's goal is to produce in-house design of any pipeline installation, replacement, and/or relocation project that is classified as capital costs. The use of outside consulting engineers for design support is limited to capital projects involving specific technical matters that are beyond the staff engineers' areas of competence or time restrictions.

The CCCP section monitors CAW customer compliance with ADH requirements concerning prevention of contamination of the system through real or potential cross-connections or backflow. The program maintains an extensive database of customer accounts, backflow requirements, and testing updates.

The New Service Section maintains information concerning water service availability and receives and processes requests for service from new customers to the CAW system. This section is highly interconnected with the CIS, Cityworks work-order system, GIS mapping computer systems, and various Engineering Department databases.

<b>EUM Attribute:</b>	Infrastructure Stability
<b>Goal:</b>	Maintain proper and adequate planning for expansion of new system infrastructure and rehabilitation of existing infrastructure so as to meet the needs and security of existing and future customers of the CAW system.

**Objective 1:** Master planning and construction plan review throughout the system to determine scope of needed facility and pipeline installations or improvements.

### **2019 Accomplishments**

In 2017, the Engineering Department managed the development of an extensive PER by a contracted consulting engineer detailing work totaling \$26.9 million in costs necessary for treatment process and structure/building improvements and rehabilitation needed for the continued productive use of the Ozark Point Water Treatment Plant. This PER was used to effect detailed engineering design of these improvements. Engineering design began in early 2018 and was completed in early 2019. Construction commenced in late 2019 and will take up to two years to complete.

The Engineering Department has managed the detailed engineering design for the phased replacement of all pumps, motors, and electrical equipment at CAW's largest pump station, the Wilson Plant Pump Station No. 1A. Phase one of this project was bid in late 2017 and the improvement work began in 2018. Phase one construction was completed in early 2019. Phase two of the proposed pump station improvements is expected to bid as early as 2021.

CAW completed a contractual agreement with the U.S. Army Corps of Engineers to purchase the remaining 100 MGD DeGray Lake raw water allotment.

**Objective 2:** Improve infrastructure to mitigate spontaneous water main failures within the system; replace problematic, high maintenance galvanized iron pipe, asbestos-cement pipe, PVC pipe, and cast iron pipe.

### **2019 Accomplishments**

CAW replaced approximately 37,100 feet of galvanized, asbestos cement, steel, and cast iron pipe through the combination of contracted work (22,600 feet) and work performed in-house by the Distribution Department (14,500 feet). Galvanized, asbestos-cement, and cast iron pipe contribute to the majority of spontaneous water main failures in the CAW system.

The replacement work noted above includes a third phase of asbestos-cement pipe replacement in the City of Maumelle at a cost of \$915,000 funded by the MWM merger bond.

### **Other 2019 Accomplishments**

The Engineering Department reviewed approximately 10 street and drainage projects initiated by the Arkansas Department of Transportations (ARDOT), Pulaski County Public Works, and the Cities of Little Rock, North Little Rock, Sherwood, and Maumelle. Several

of these proposed improvement projects were found to require relocation of CAW water lines. The Engineering Department designed and contracted one capital construction project (totaling 1,950 feet of 16-inch pipe with a \$600,000 construction cost) and several small projects constructed by CAW crews for water line relocations in 2019. While relocations result in new infrastructure installation, these projects are not initiated for system needs or to replace pipe that is past its useful life. Therefore, these mandatory projects compete for limited capital funds that could otherwise be used for replacing aging infrastructure that is past its useful life or that has a chronic history of spontaneous leaks or breaks.

The Engineering Department, in cooperation with the Distribution and Water Production departments, completed the rehabilitation of a 2,000 HP electric motor for pumping unit No. 2 at the Lake Maumelle raw water pumping station in early 2019 and the rehabilitation of a 2,000 HP electric motor for pumping unit No. 1 in mid 2019.

CAW completed the design and obtained bids for the \$1.1 million roof replacement, including interior and exterior painting, of Tank No. 30A in compliance with the MWM merger agreement. This project began construction in 2018 and was completed in 2019.

**2020 Goals**

Engineering plans to oversee the replacement of approximately 34,000 feet of old, high-maintenance galvanized, asbestos-cement, PVC, and cast iron pipe in 2020. Approximately 70% of this footage will be replaced through contracted capital jobs, and 30% will be replaced by the Distribution Department using in-house forces.

Many street, road, and drainage improvement projects initiated by ARDOT and the cities of Little Rock, North Little Rock, Sherwood, and Maumelle will be reviewed. Many of these projects could require the relocation of water facilities.

Engineering will manage the construction phase of the Ozark Point Water Treatment Plant Rehabilitation and Improvements project. This project design was completed in early 2019, bid, and awarded for construction in mid 2019. Construction commenced in late 2019 and will take approximately two years to complete.

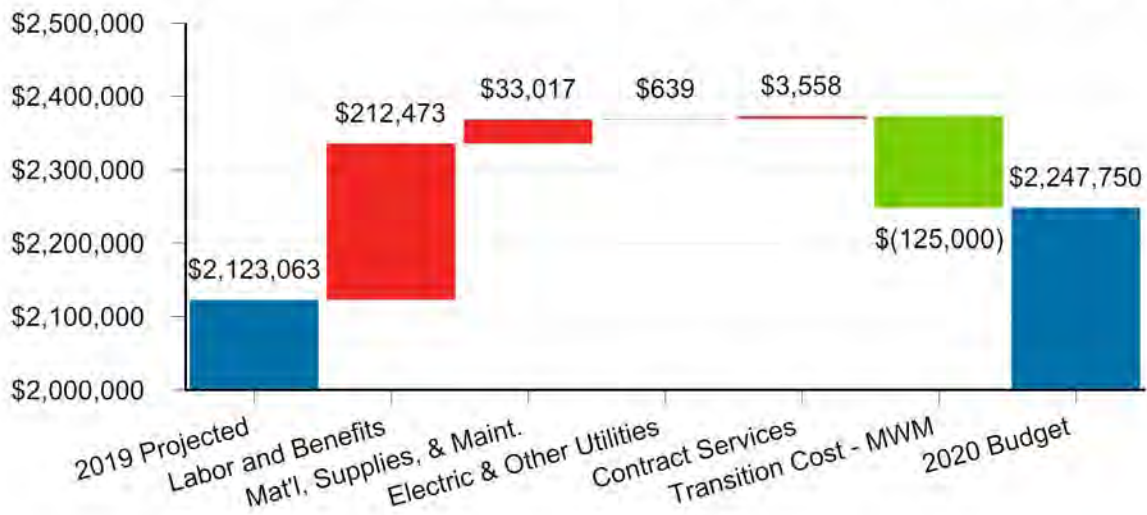
Engineering will work with ARDOT to contract the relocation of an existing 24-inch water transmission main currently attached to the Interstate 30 Arkansas River bridge. The bridge will be replaced as part of the 30 Crossing interstate improvement project. A new transmission main will be attached to the new interstate river bridge. Work on the new bridge is scheduled to commence in 2020.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Galvanized, Asbestos-Cement, and Cast Iron Pipe Replacement (linear feet)	38,000	37,590	34,000

## Engineering – Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 1,820,375	\$ 1,906,215	\$ 2,098,996	\$ 2,118,688
Materials, Supplies, and Maintenance	58,054	56,623	73,510	89,640
Electric and Other Utilities	5,572	5,241	5,840	5,880
Contract Services	19,887	29,984	36,726	33,542
MWM Transition Costs	—	125,000	125,000	—
<b>Total Expenses</b>	<b>1,903,888</b>	<b>2,123,063</b>	<b>2,340,072</b>	<b>2,247,750</b>
<b>Total Capital Costs</b>	<b>13,595,027</b>	<b>—</b>	<b>22,268,960</b>	<b>29,963,335</b>
<b>Total Engineering</b>	<b>\$ 15,498,915</b>	<b>\$ 2,123,063</b>	<b>\$ 24,609,032</b>	<b>\$ 32,211,085</b>

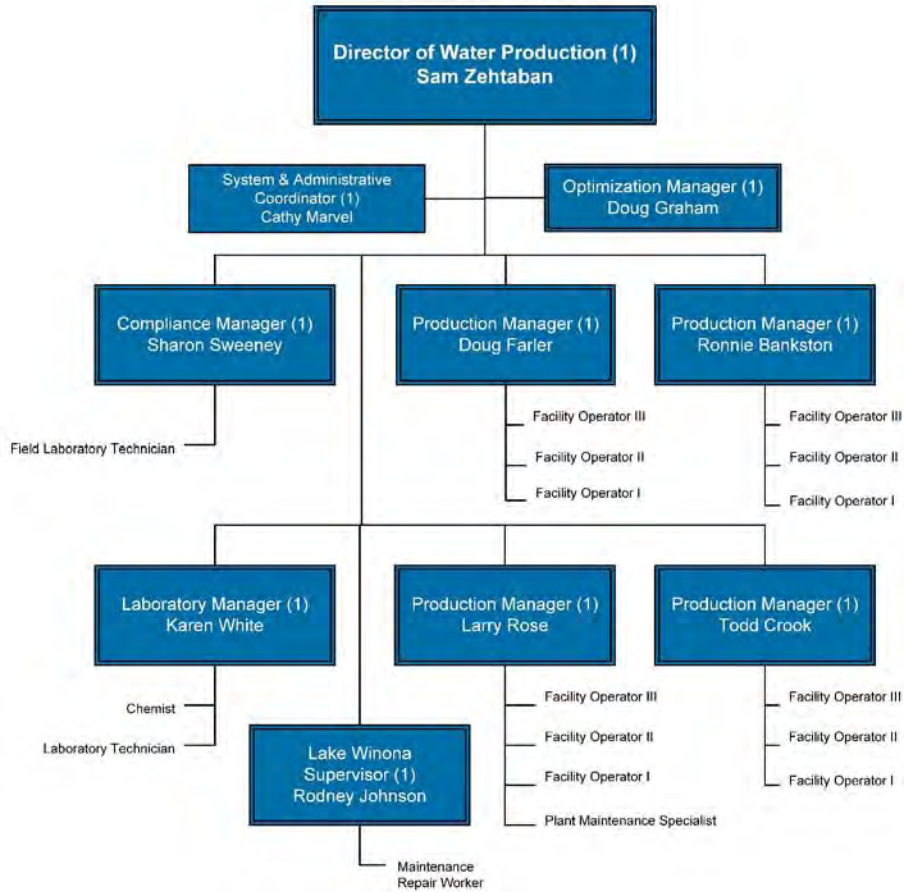
### Change by Natural Classification - 2019 Projected to 2020 Budget



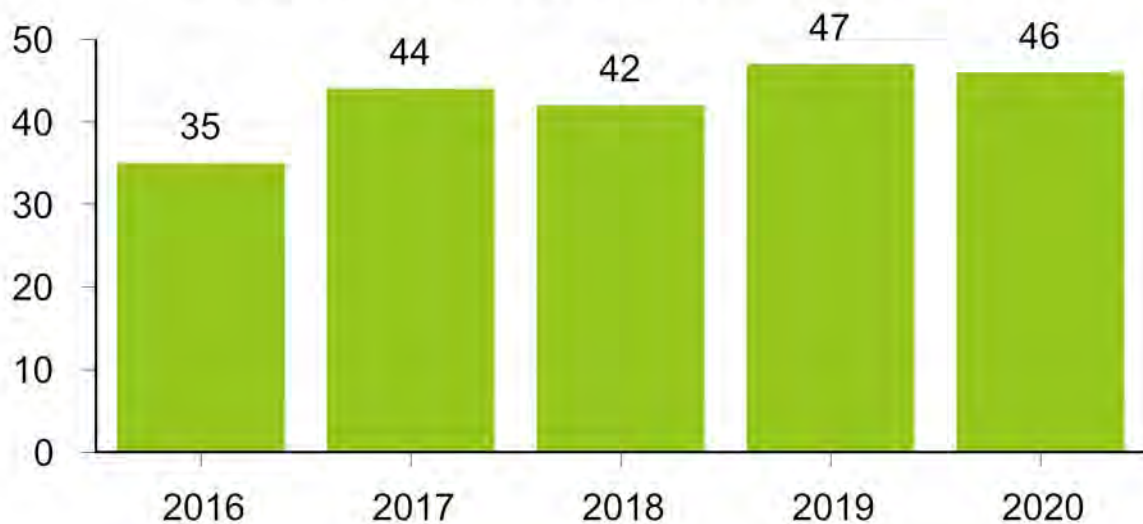
Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# WATER PRODUCTION DEPARTMENT

Effective: January 1, 2020



Departmental Staff by Year - Water Production



# Water Production Department

The Water Production Department monitors and operates the water treatment and delivery facilities, ensures cost-effective performance in all facets of operation, and maintains awareness of water quality information, regulations, and operational technology development. The treatment plants produced an average of 61 MG of potable water per day in 2018, with a peak daily production of 126 MG on July 30, 2012. On a day-to-day basis, Water Production manages and administers operations of the source water facilities, treatment plants, distribution system pumping stations, storage tanks, remotely operated valves and SCADA system. All staff members are required to obtain an Arkansas Water Operator's License issued by the ADH. Supervisory and some additional operating staff also hold wastewater licenses from the Arkansas Department of Environmental Quality for discharging water through a regulated discharge site with a National Pollutant Discharge Elimination System (NPDES) permit.

Water Production's responsibilities include operation of the source water facilities, Wilson Plant and Ozark Point Plant and high-service pumping stations; operation of the distribution system booster pumping stations, storage tanks, and intersystem valves; compliance with the Safe Drinking Water Act (SDWA); and the monitoring and treatment of NPDES permitted waste discharges. The Department also oversees all sampling and laboratory operations including an ADH certified bacteriological lab.

<b>EUM Attribute:</b>	Product Quality
<b>Goal:</b>	Provide an uninterrupted supply of high quality potable water that meets or exceeds all SDWA regulations.

**Objective 1:** Maintain 100% SDWA compliance.

## 2019 Accomplishments

Through continued monitoring and operation of treatment processes, the distribution system, and other Utility facilities, CAW maintained 100% SDWA compliance through October 2019 and does not foresee any issue that would cause the Utility to deviate from this compliance trend.

**Objective 2:** 100% of monthly filtered water compliance monitoring samples  $\leq$  0.3 Nephelometric Turbidity Units (NTUs); NTU is measurement of water clarity.

### **2019 Accomplishments**

Through continuous monitoring of raw water quality and the treatment process, the department has successfully managed to maintain 100% compliance at both the Wilson and Ozark Point Plants.

**Objective 3:** 95% of monthly filtered water compliance monitoring samples  $\leq$  0.1 NTUs.

### **2019 Accomplishments**

CAW continued making progress under the “Partnership for Safe Water” treatment performance criteria by submittal of a Treatment Baseline Report to AWWA. An assessment of CAW's achievement of Partnership for Safe Water standards will be performed by the end of 2020. Ensured high quality water throughout the delivery system by developing proactive management and monitoring practices from source to tap, including management of filter operations to evaluate if this change could improve flocculation and settling of solids, ultimately reducing finished water turbidity.

**Objective 4:** 100% monthly water compliance monitoring samples with Total Coliform Monitoring Rule (TCR).

### **2019 Accomplishments**

CAW has maintained 100% compliance with the TCR. Additionally, there have been no monitoring violations. Additional dedicated sampling stations were purchased and installed to provide more consistent compliance monitoring data. Additional compliance monitoring sites and samples were collected due to the potential consolidation with other water systems.

## **Other 2019 Accomplishments**

The Water Production Department continued its proactive work of enhancing operations through optimization of treatment processes, system operation to include tank management, system enhancements, and personnel training. Department staff completed additional training, as well as more advanced cross training, for managers, operators, and other personnel in order to realize additional efficiencies in the Water Production Department. Repair of a slide, on the dry side, of the Lake Maumelle dam was performed and monuments installed to monitor the dam. Tank mixers were installed in five distribution tanks along with several chlorine residual probes. Staff members are involved on several

teams to enhance operations, treatment and information technology. The Wilson West pipe gallery piping was stripped and painted in efforts to maintain the infrastructure. Pump motors 1 and 2, at the Lake Maumelle Pump Station, were rebuilt. The department continued to identify strengths and opportunities that can be improved upon and opportunities for change that could result in a more efficient and effective operation. One of these was the testing of a new coagulant, at the Wilson Plant, to enhance water quality and possibly reduce overall operational treatment costs. Rehabilitation on pumps, motors, motor controls, and all associated electrical gear was completed at Wilson Plant Pump Station No. 1A and will provide more reliability and flexibility providing water to customers. New valves were installed on the supply lines going to the clearwells at the Ozark Point Plant. Planning and review for the upcoming Ozark Point Plant rehabilitation/upgrade was completed.

In keeping with the Utility's goal of understanding CAW's water from source to tap, two special projects requiring analytical data were initiated in 2019. Beginning in March of 2019, the laboratory expanded their scope of testing for CAW's distribution system. The information provided on Trihalomethanes, Anions, Metals, and Microbiological growth in the distribution system is used to assess water quality throughout the system and identify those areas needing improvement. In June of 2019, the laboratory began providing Nitrate, Nitrite, Total Phosphate, and Total Organic Carbon (TOC) analysis for 72 additional samples collected from Lake Winona and Lake Maumelle.

In support of CAW's desire to consolidate with surrounding utilities, special projects were initiated to evaluate two water distribution systems. These studies consist of collecting samples from bacteriological sites for anions and cations as well as the regulatory parameters of Total Coliform, E. coli, TOC, and Trihalomethanes (TTHMs). The studies were initiated in June 2019 and continued through September 2019.

After visiting with several Laboratory Information Management Systems vendors (LIMS), a system from Ethos was selected for purchasing, installation, training, and implementation. CAW's laboratory staff are tentatively scheduled to meet with Ethos beginning in August.

CAW greatly increased distribution system water quality monitoring at 35 routinely monitored Total Coliform Rule sample sites spatially located throughout CAW's distribution system by collecting and analyzing samples for parameters including: Adenosine Triphosphate; 2 emerging pathogens of concern; TOC; TTHMs, and wet chemistry scans. This robust suite of analyses allows CAW to more proactively respond to potential water quality issues and adaptively manage the distribution system.

CAW staff concluded participation in a nationwide epidemiologic study of health effects associated with low pressure events in drinking water distributions systems sponsored by the U.S. Centers for Disease Control and Prevention and performed in conjunction with other water utilities. Preliminary data from this study was presented at the American Water Works Association Annual Conference and Exposition in June.



## 2020 Goals

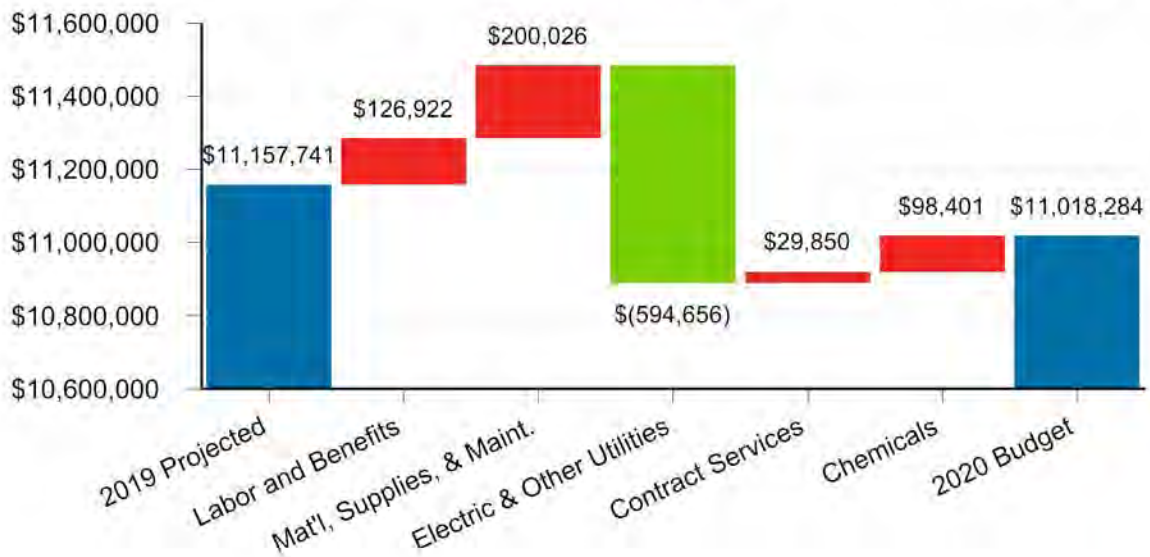
In 2020, the Water Production Department will continue work on the goal of enhancing operations through optimization of treatment processes, system operation to include tank management, system enhancements, and personnel training. The department will undertake additional training, as well as more advanced cross training, for managers, operators, and other personnel in order to realize additional efficiencies in the Water Production Department. The department will also continue to identify strengths that can be improved upon and opportunities for change that will result in a more efficient and effective operation. Rehabilitation on Pump 4 will be conducted as well as lime feed system improvements at the Lake Maumelle Pump Station. Then Ozark Point Plant will be brought back on line in late spring with newly-designed Flocculation/Sedimentation basins and associated equipment.

Performance Measures	2018 Actual	2019 Estimated	2020 Budget
100% SDWA Compliance	Yes	Yes	Yes
≤ 80% of All MCL	Yes	Yes	Yes
100% TCR Monitoring	Yes	Yes	Yes
Months 100% of Filtered Turbidity ≤ 0.3 NTUs – Wilson Plant	12	12	12
Months 100% of Filtered Turbidity ≤ 0.3 NTUs – Ozark Point Plant	12	12	12
Months 95% of Filtered Turbidity ≤ 0.1 NTUs –Wilson Plant	5	3	12
Months 95% of Filtered Turbidity ≤ 0.1 NTUs – Ozark Point Plant	1	2	12

## Water Production – Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 4,325,633	\$ 4,735,320	\$ 4,877,935	\$ 4,862,242
Materials, Supplies, and Maintenance	375,043	448,972	520,510	648,998
Electric and Other Utilities	3,524,140	4,060,920	3,785,764	3,466,264
Contract Services	112,080	116,942	102,435	146,792
Chemicals	1,663,964	1,795,587	1,621,046	1,893,988
MWM Transition Cost	2,310	—	—	—
<b>Total Expenses</b>	<b>10,003,170</b>	<b>11,157,741</b>	<b>10,907,690</b>	<b>11,018,284</b>
<b>Total Capital Costs</b>	<b>1,213,592</b>	<b>—</b>	<b>1,795,000</b>	<b>2,154,000</b>
<b>Total Water Production</b>	<b>\$ 11,216,762</b>	<b>\$ 11,157,741</b>	<b>\$ 12,702,690</b>	<b>\$ 13,172,284</b>

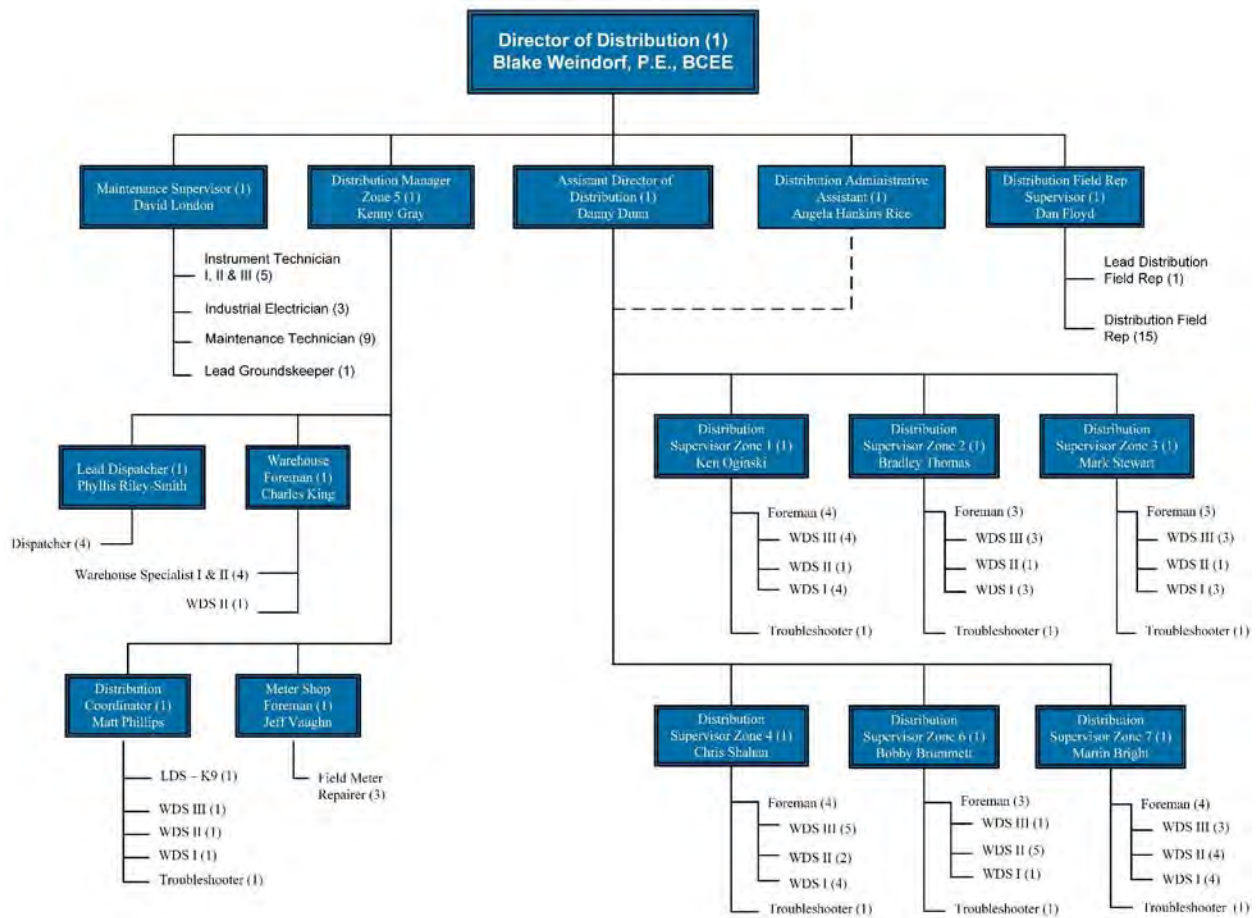
## Change by Natural Classification - 2019 Projected to 2020 Budget



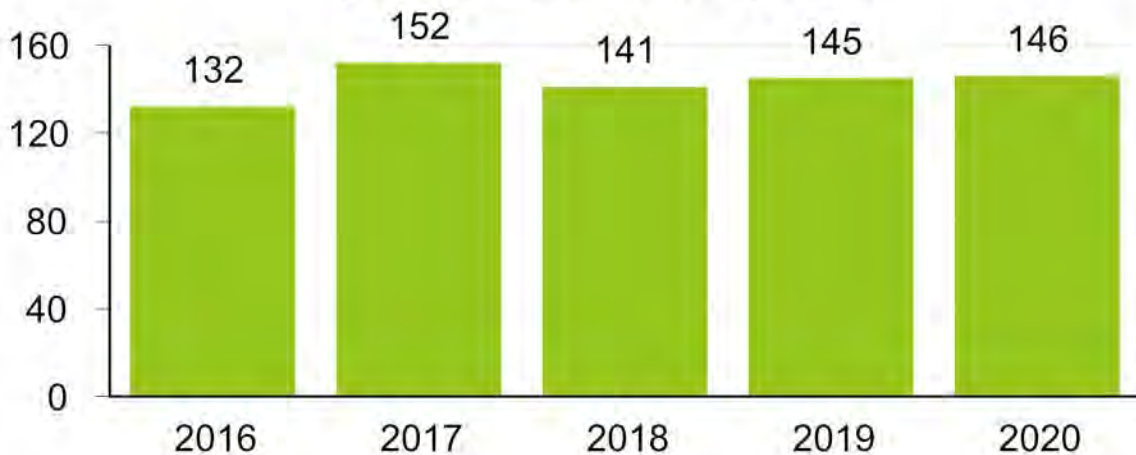
Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

# DISTRIBUTION DEPARTMENT

Effective: January 1, 2020



## Departmental Staff by Year



# DISTRIBUTION DEPARTMENT

The Distribution Department ensures that the infrastructure used to transport water to customers is maintained to current standards and is quickly repaired when necessary. Although CAW's distribution system is highly technical, the goal of the Distribution Department is simple--to provide dependable water service and high quality water to CAW customers. To meet this overarching goal, the department undertakes a wide variety of initiatives to improve the distribution system's stability, reliability, resiliency, and sustainability.

As the most direct link between a water utility and its customers, the distribution system also substantially shapes the public's perception of the Utility and its level of satisfaction with the Utility's service. Through proactive maintenance, as well as emergency repair activities, professional communication and customer service are emphasized in all elements of the department's work.

## Mission

The Distribution Department is committed to operating and maintaining CAW's distribution system with dependable service that exceeds customer expectations in order to deliver high quality water to customers whenever they need it.

<b>EUM Attribute:</b>	Infrastructure Stability
<b>Goal:</b>	To ensure asset repair, rehabilitation, and replacement efforts are coordinated within the community to minimize disruptions and other negative consequences

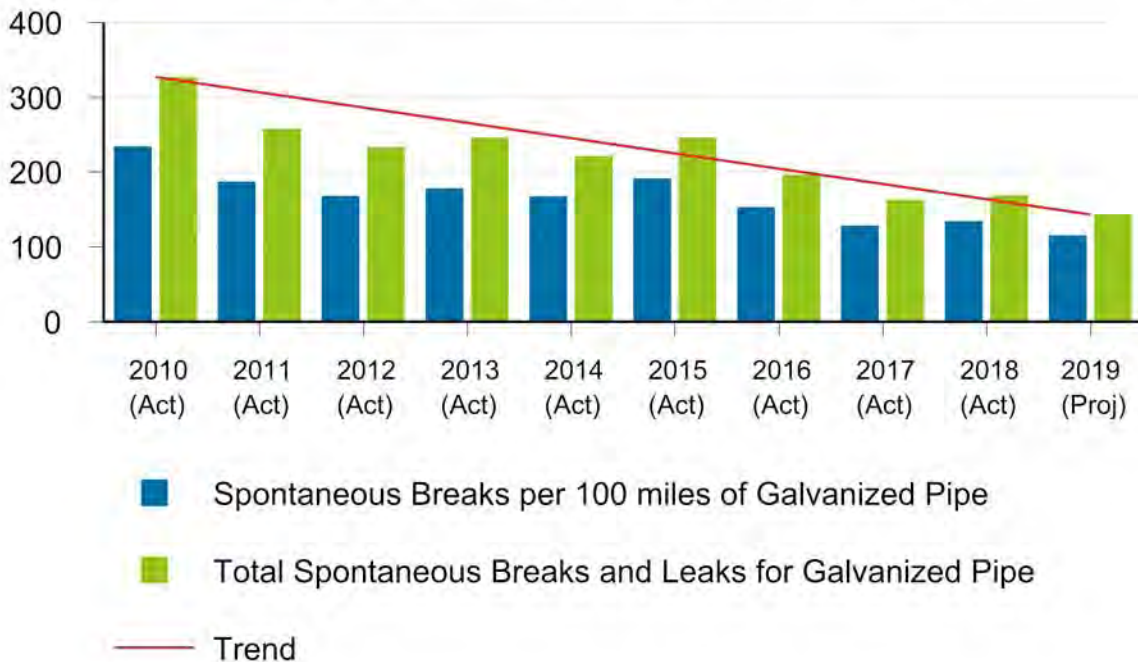
**Objective 1:** Reduce the total number of main breaks per 100 miles of pipe from previous year.

## 2019 Accomplishments

The Distribution Department continued the aging pipe replacement program implemented in 2015. This program focuses on replacing mains with high failure rates within the distribution system. Galvanized mains account for 38% of the distribution system's annual leaks and breaks, but only 6% of the system's pipe makeup. Distribution's goal is to replace 14,000 feet of aging pipe annually. This program furthers the goals of CAW's asset management plan, which identified a need to increase the amount of this type of main replaced each year. CAW's 2014 pilot study of aging pipe replacement determined that in-house construction crews are the most cost-effective way to increase the replacement of these problem assets. Since the pilot study, Distribution Department staff, along with the Engineering Department's aging pipe replacement program, have reduced the number of spontaneous breaks per 100 miles of galvanized pipe from 191

breaks in 2015, down to 128 in 2017. In 2018, the extremely cold weather in January and February caused an increase in galvanized main breaks to 169 for the year. This increase caused the main breaks per 100 miles of pipe to go up from 128, in 2017 to 134 in 2018. Halfway through 2019, Distribution has seen a reduction of galvanized main breaks compared to 2018. The number of breaks on galvanized mains for 2019 are on track to be 5.8% less than in 2018. As of early November, there have only been 123 spontaneous main breaks on 2” galvanized pipe. Distribution estimates another 20 spontaneous breaks on galvanized pipe totaling 143 breaks for the year. If the current trend continues, Distribution will have 115 breaks per 100 miles of galvanized pipe in the system by the end of 2019.

### Breaks and Leaks on Galvanized Pipe



Main breaks caused by poor performing galvanized mains have a great influence on the overall break rate for the system. By focusing on replacing galvanized mains throughout the distribution system, spontaneous main breaks system-wide continue to decrease significantly from previous years. 2017 recorded a record low of 18.4 spontaneous main breaks per 100 miles of pipe, down from 20.5 in 2016 and 23 in 2015. The spontaneous main breaks for 2018 increased to 19.1 due to higher than normal breaks in January, February, and June. Distribution estimates a decrease for main breaks system-wide at 17.4 spontaneous main breaks per 100 miles of pipe for 2019, if not lower.

## Main Breaks per 100 Miles of Pipe



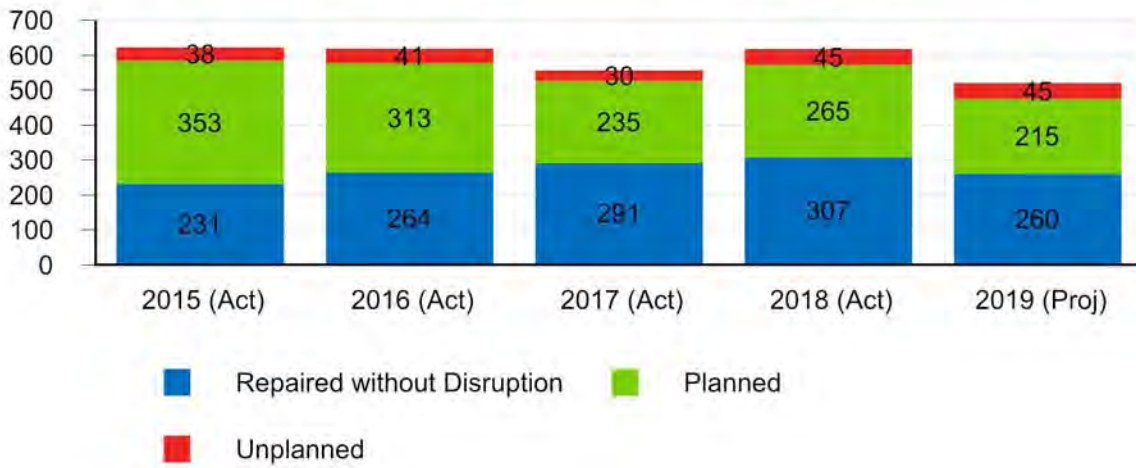
**Objective 2:** Reduce the number of unplanned outages from previous year.

### 2019 Accomplishments

The Distribution Department continues efforts to minimize emergency outages, repair main breaks without resulting in an outage, and pre-schedules required outages whenever possible. Distribution saw a record low of unplanned outages in 2017 at only 30. However, in 2018, Distribution had an increase to 45 unplanned outages due to higher than normal breaks in January, February, and June. Based on observed trends through September, staff expect unplanned outages in 2019 to remain at approximately 45. The graph on the next page depicts the actual service outages for 2015 - 2018, with 2019 projected information.

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## Planned vs Unplanned Outage by Year



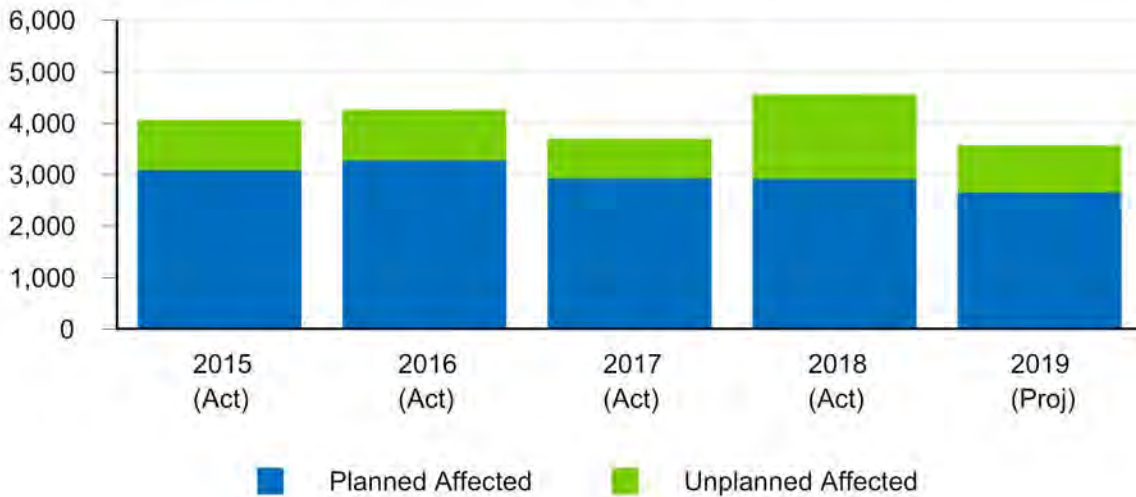
<b>EUM Attribute:</b>	Operational Optimization
<b>Goal:</b>	Maximize resource efficiency

**Objective 1:** Reduce the number of customers affected by unplanned outages.

### 2019 Accomplishments

Along with the increase in main breaks for 2018, Distribution had an increase in the number of customers affected by unplanned outages in the system from 775 in 2017, to 1,647 affected in 2018. While this is a sizeable increase, 480 customers were affected by 2 breaks on the same section of main that feeds an isolated area. Without these, the 2018 customers affected would have been 1,167. With main breaks expected to be reduced for 2019, Distribution anticipates the number of customers affected by unplanned outages to be near 920 customers. The historical average number of main breaks per year for CAW is approximately 600 and the resulting outages affect close to 4,000 customers annually.

## Customer Outages by Year



The Distribution Department implemented a system-wide valve inspection program in July 2013, which was completed in 2016. The objective was to reduce the number of customers affected by outages as well as property damage, by inspecting and ensuring each of the 34,645 valves in the distribution system is locatable and operable. Through a three-year inspection program, 1,059 covered and inoperable valves were deemed to be 'un-locatable'. In 2017, Distribution personnel worked to locate and inspect these un-locatable valves, beginning with the larger sized to smaller sized valves. Staff located and inspected a total of 108 un-locatable valves in 2017 and 2018 combined. As part of the 2020 Strategic Plan, Distribution will continue to work toward operating all of these valves by the end of 2020. Shown below is a breakdown of the remaining 899 un-locatable valves in the system. It should be noted that the 518 un-locatable 2-inch valves are mostly attributed toward service stubs and blow-offs; these do not aid in reducing unplanned outages and do not interfere with isolating mains in the system. Distribution plans to locate and inspect the 345 un-locatable valves four inches and larger by the end of 2019.



Un-Locatable Valves	
Valves	Number
2"	518
3"	36
4"	23
6"	138
8"	164
10"	6
12"	12
16"	2
<b>Total</b>	<b>899</b>

**Objective 2:** Maintain unaccounted for water below AWWA Benchmark (median = 9.5%) and ADH action level > 15%.

**2019 Accomplishments**

The distribution system is closely monitored for any increase in unaccounted for water. When significant increases occur, indicating a possible unreported leak or main break, Distribution personnel survey right-of-ways and easements that are not easily visible to locate leaks. Distribution saw an increase in the 12-month rolling average of unaccounted for water through July 2019, which is currently at 10.21%. Distribution will continue its proactive work to keep this number below the AWWA benchmark of 9.5%.

GIS has created an easement inspection layer, similar to the valve inspection layer. Distribution staff will start inspecting each easement in August and document areas of concern using the Cityworks System. Once all easements are inspected and priority levels are given on each easement, Distribution will be able to run a report to determine the areas of most concern. Following the easement condition assessment, Distribution plans to begin work clearing easements. This will allow Distribution personnel easier access to the easement when searching for leaks in remote areas and then to proactively deploy a robust leak detection program. In the fall of 2019, Distribution added a Leak Detection Specialist position to its staff who will be working with its new Leak Detecting Canine (Vessel) locating leaks throughout the system.

<b>EUM Attribute:</b>	Financial Viability
<b>Goal:</b>	Manage budget effectively

**Objective 1:** Schedule and complete at least 85% of approved capital budget projects.

## **2019 Accomplishments**

Based on trends through August 2019, Distribution anticipates completing 94% of the \$3.93 million in capital projects budgeted for 2019.

**Objective 2:** Reduce O&M Costs associated with main breaks.

## **2019 Accomplishments**

The frigid temperatures in January and February of 2018 triggered the higher number of breaks in the system causing an overage of \$203,000 in 2018 for main repairs. With the budget in 2019 remaining at \$785,000 and the unforeseen price increase in the asphalt contract at the start of 2019, Distribution is forecasted to be over budget by \$100,000 in 2019 for costs associated with main repairs. After reviewing spending tendencies in this budget category the 2020 budget for repairs to water mains will increase to \$860,000. However, due to savings in other areas, the non-payroll O&M budget will remain flat.

## **Other 2019 Accomplishments**

**Merger with MWM:** Distribution continued efforts in Maumelle following the successful merger with MWM in 2016. Since the merger, Distribution continues to focus resources on service line replacements in Maumelle due to its poor condition. Distribution replaced 165 services in 2016, 185 services in 2017, 180 in 2018 and projects 200 services in 2019; the four-year total for service replacements inside Maumelle is projected at just over \$930,000. Even with this considerable investment in repairing leaks in Maumelle, the unaccounted for water amounts within Maumelle remain higher than the rest of the CAW distribution system. CAW plans to focus proactively on leak detection within Maumelle in 2020.

**Safety:** In late 2016 and 2017, the Distribution Department refocused its safety efforts by increasing training, tailgate talks, and supervisor accountability. These efforts continued in 2018 to increase the safety culture within the department. In 2018, Distribution had eight Workers Compensation claims filed and 14 vehicle accidents (six at fault). As of August 2019, Distribution has had six Workers Compensation claims and eight vehicle accidents. In May, working with EHS staff, Distribution Supervisors developed a multi-faceted checklist and began visiting job sites and performing weekly safety inspections in the field in addition to the zones weekly safety tailgate talks.

**Hydrant Inspection:** By the end of October, Distribution staff finished all hydrant inspections totaling 16,040 hydrants throughout the system; meeting the bi-annual inspection goal. (As of August, Distribution staff had approximately 2,900 hydrants left to inspect.) The inspections of all hydrants were scheduled to be completed by the end of spring but had to utilize personnel in other needed areas. With the completion of hydrant inspections, inspectors will turn their focus on valve inspections.

**Valve Inspections:** Distribution staff will start inspecting 12-inch and smaller valves in the fall of 2019, which will be the second time the routine inspection program will be initiated. The program began in 2013 and was completed in 2016. After reviewing the program, staff determined that it would be most effective to inspect these valves on a five-year cycle. Based on this, all 12-inch and smaller valves (33,860) should be inspected by the end of 2024. In August of 2019, Distribution staff started inspecting all 16-inch and larger valves (785) in the system and should be completed by mid-September. 16-inch and larger valves are routinely inspected every year.

**Mapping of Service Locations:** In 2018, the department completed locating and collecting GPS points all of the meters (151,082) throughout the system. Distribution staff will continue to capture GPS points on all new meters installed throughout the system quarterly (As of August, 753 meters were mapped in 2019). With plans in the future to implement a customer outage reporting program within the new CIS platform, Distribution staff have worked with GIS to add the lateral asset service lines from the meter box to the mains. Connecting all lateral service lines from the meter box to the main will be completed by the end of the year. Roughly 25% of these services will need to be field verified for accuracy. Distribution will begin verifying these services in the fall of 2019, and should be completed by the end of 2020. This will complete the link needed to provide outage notifications in the future to improve customer service response.

**Revised Job Standards to Evaluate Employee Efficiencies:** In 2019, the Distribution Department formed a working team to evaluate tasks performed in the department and to create SOPs and Job Standards, which define the average time to complete the various tasks. The team meets bi-monthly and should have the first few SOPs with Job Standards completed by the end of 2019. There are many tasks to document throughout the department; the team plans to remain active until all are reviewed and completed. Even when SOPs are completed, the Distribution Standards Team will remain in place to revise and update the SOPs in an effort to foster continual improvement and drive efficiencies into the work processes.

## **2020 Goals**

In 2020, Distribution will continue to pursue efficiency gains enabled by the integration of the Distribution Field Reps into the department. Staff will work with GIS to complete the task of mapping service lines verifying their connections to the mains in the system and should be completed by the end of 2020. Distribution will continue its aging pipe replacement program with an additional 14,000 feet in 2020, which will contribute to reduced main breaks, fewer unplanned outages, and a smaller number of customers affected by breaks. Distribution plans to continue its efforts in SOP development and will push out the first few SOPs with associated Job Standards. This data will allow staff to track production on an individual standpoint and assist with evaluating employee efficiencies. GIS created an easement inspection layer similar to the valve inspection layer. With this inspection layer added to the mapping system in the fall of 2019, staff will start inspecting all of the easements in the system. The condition assessment will allow each easement to be

maintained based on its status and priority level; it will also aid the leak detection program. In 2020, Distribution will start clearing the highest priority level easements. Distribution will continue to work on the 2020 strategic plan initiatives including revised condition assessments to improve the Asset Management Program, Leak Detection/Non-Revenue Water Audit, and employee performance and training enhancement.

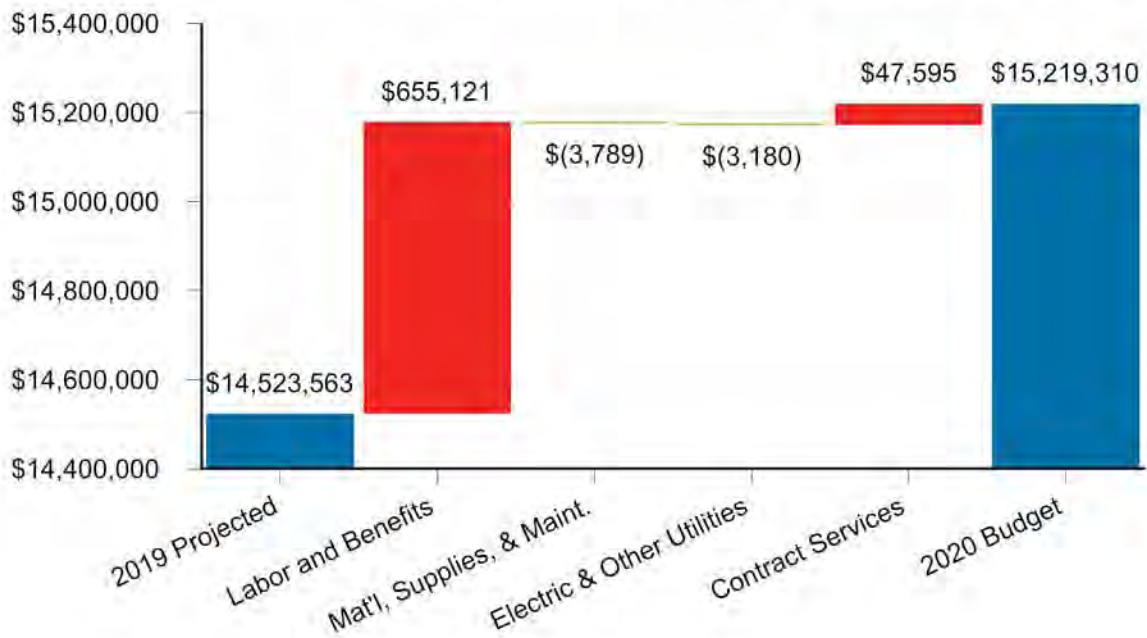
Performance Measures	2018 Actual	2019 Estimated	2020 Budget
Replace 2-inch Aging Pipe (Feet)	12,500	14,000	14,000
Spontaneous Main Breaks per 100 Miles of Pipe	19.1	17.4	17.2
Unplanned Outages	45	5	40
Customers Affected	1647	920	900
Locate and Inspect 'Un-locatable' Valves	50	354	554
Unaccounted For Water ≤ 9.5%	9.5%	9.3%	9.1%
Complete Capital Budget Projects	87%	94%	94%
Main Break O&M Costs	\$988K	\$885K	\$860K
Field Rep Order Completion Rate	99.8%	99.8%	99.8%
Field Rep Order Accuracy Rate	99.9%	99.9%	99.9%
Field Rep Work Order Rate per Day	50.0	50.1	50.2

### Distribution - Expense Summary

	2018 Actual	2019 Projected	2019 Budget	2020 Budget
Labor and Benefits	\$ 9,984,537	\$ 10,283,925	\$ 10,487,110	\$ 10,939,046
Materials, Supplies, and Maintenance	3,662,076	3,534,839	3,288,200	3,531,050
Electric and Other Utilities	54,415	61,480	59,800	58,300
Contract Services	627,785	643,319	667,218	690,914
<b>Total Expenses</b>	<b>14,328,813</b>	<b>14,523,563</b>	<b>14,502,328</b>	<b>15,219,310</b>
<b>Total Capital Costs</b>	<b>4,340,895</b>	<b>—</b>	<b>3,921,000</b>	<b>3,672,750</b>
<b>Total Distribution</b>	<b>\$ 18,669,708</b>	<b>\$ 14,523,563</b>	<b>\$ 18,423,328</b>	<b>\$ 18,892,060</b>

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## Change by Natural Classification - 2019 Projected to 2020 Budget



Graph shows departmental expense progression from 2019 Projected to 2020 Budget by Natural Classification. Blue bars indicate the total departmental expense for the two periods with red bars indicating additional expense and green bars indicating less expense by category.

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# APPENDIX

James T. Harvey Administration  
Center  
Central Arkansas

## Statistical Information

Pulaski County is the largest county by population in the state of Arkansas, with a population of approximately 393,000.<sup>4</sup> Its county seat is Little Rock, which is also the state’s capital and largest city. Pulaski County has a total area of 845 square miles, of which 808 square miles are land and 37 square miles are water.<sup>1</sup> Pulaski County forms the core of the Little Rock-North Little Rock-Conway Metropolitan Statistical Area, which accounted for approximately 738,000 people.<sup>2</sup>

Local, state, and federal government have been the area’s major employers for many years. Medical facilities, banks, and other service industries are also very important to the economy. Government and medical facility employers in particular have kept the local economy relatively stable. Both the cities of Little Rock and North Little Rock have revitalized their respective downtown areas, which in turn fueled attraction of major corporations in a variety of industries.<sup>3</sup>



<b><u>Demographics</u></b>	
<b><i>Pulaski County</i></b>	
Population Est. (2018) <sup>4</sup>	392,680
Per Capita Income (2017) <sup>4</sup>	\$29,855
Median Household Income (2017) <sup>4</sup>	\$48,850
Unemployment Percentage Rate (2018) <sup>5</sup>	3.4%



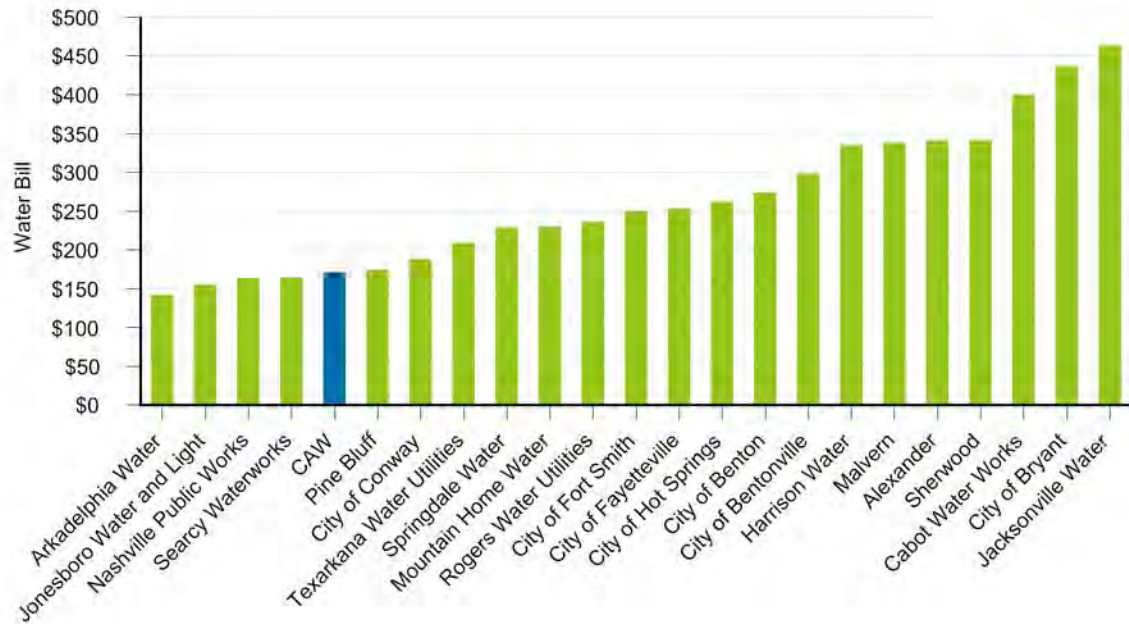
<i>Pulaski County (continued)</i>	
Median Age (2010) <sup>6</sup>	36.0
Race (2010) <sup>6</sup>	
* White	55.4%
* Black or African-American	34.8%
* American Indian	0.3%
* Asian	1.9%
* Hispanic	5.8%
* Other	1.8%
<b>Little Rock</b>	
Population (2018) <sup>4</sup>	197,881
Per Capita Income (2017) <sup>4</sup>	\$32,719
Median Household Income (2017) <sup>4</sup>	\$48,463
Unemployment Percentage Rate (2018) <sup>5</sup>	3.4%
Median Age (2010) <sup>7</sup>	35.1
Race (2010) <sup>7</sup>	
* White	46.7%
* Black or African-American	42.2%
* American Indian	0.3%
* Asian	2.6%
* Hispanic	6.8%
* Other	1.4%
<b>North Little Rock</b>	
Population (2018) <sup>11</sup>	66,127
Per Capita Income (2017) <sup>11</sup>	\$24,639
Median Household Income (2017) <sup>11</sup>	\$41,278
Unemployment Percentage Rate (2018) <sup>5</sup>	3.7%
Median Age (2010) <sup>8</sup>	35.9
Race (2010) <sup>8</sup>	
* White	51.6%
* Black or African-American	39.6%
* American Indian	0.3%
* Asian	0.9%
* Hispanic	5.7%
* Other	1.9%
<b>Sherwood</b>	
Population (2018) <sup>12</sup>	31,237
Per Capita Income (2017) <sup>12</sup>	\$29,496
Median Household Income (2017) <sup>12</sup>	\$61,047

<i>Sherwood (continued)</i>	
Unemployment Percentage Rate (2018) <sup>5</sup>	3.0%
Median Age (2010) <sup>9</sup>	37.0
Race (2010) <sup>9</sup>	
* White	73.4%
* Black or African-American	18.4%
* American Indian	0.5%
* Asian	1.6%
* Hispanic	4.0%
* Other	2.1%
<b><i>Maumelle</i></b>	
Population (2018) <sup>13</sup>	18,111
Per Capita Income (2017) <sup>13</sup>	\$40,264
Median Household Income (2017) <sup>13</sup>	\$72,335
Unemployment Percentage Rate (2018) <sup>14</sup>	3.4%
Median Age (2010) <sup>10</sup>	37.5
Race (2010) <sup>10</sup>	
* White	81.3%
* Black or African-American	12.0%
* American Indian	0.3%
* Asian	2.3%
* Hispanic	2.4%
* Other	1.7%
<b>CAW Service Area</b>	
Square Miles	530
Miles of Public Water Distribution Pipe (2018)	2,518
Number of Meters in Service (2018)	
* Residential	117,851
* Commercial	11,910
* Large Volume	49
* Sprinkler	26,947
* Wholesale	22
Total Consumption (2018) (in billion gallons)	18.34
Average Daily Consumption (2018) (in million gallons)	61.23
Max. Day Consumption (2018) (in million gallons)	101.35
All-Time Max. Day Consumption (2012) (in million gallons)	126.0

<b>CAW Rate Comparison - Commercial (2018)<sup>17</sup></b>			
<b>1" - Meter</b>			
<i>Water Provider</i>	<i>Commercial (74.8k Gallons)</i>	<i>Commercial (187.5k Gallons)</i>	<i>Commercial (374.0k Gallons)</i>
Alexander	341.01	876.51	1,769.01
Arkadelphia Water	141.99	289.63	533.94
Cabot Water Works	400.46	986.50	1,971.90
<b>CAW</b>	<b>171.21</b>	<b>411.21</b>	<b>811.21</b>
City of Benton	273.54	676.33	1,342.88
City of Bentonville	297.54	716.78	1,410.56
City of Bryant	436.55	1,084.58	2,156.95
City of Conway	187.65	446.86	875.81
City of Fayetteville	253.22	622.88	1,208.70
City of Fort Smith	249.98	609.98	1,209.98
City of Hot Springs	261.72	658.97	1,311.72
Harrison Water	334.93	815.03	1,445.82
Jacksonville Water	463.82	1,098.12	2,129.46
Jonesboro Water and Light	154.82	380.22	650.56
Malvern	337.93	828.18	1,648.15
Mountain Home Water	230.36	517.75	993.32
Nashville Public Works	163.23	355.95	674.86
Pine Bluff	173.88	394.47	762.12
Rogers Water Utilities	235.96	543.19	1,037.41
Searcy Waterworks	165.40	400.95	790.73
Sherwood	341.01	876.51	1,769.01
Springdale Water	228.77	569.12	1,119.95
Texarkana Water Utilities	209.22	513.51	1,017.06

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## CAW Water Rate Comparison - Commercial (74.8k Gallons)



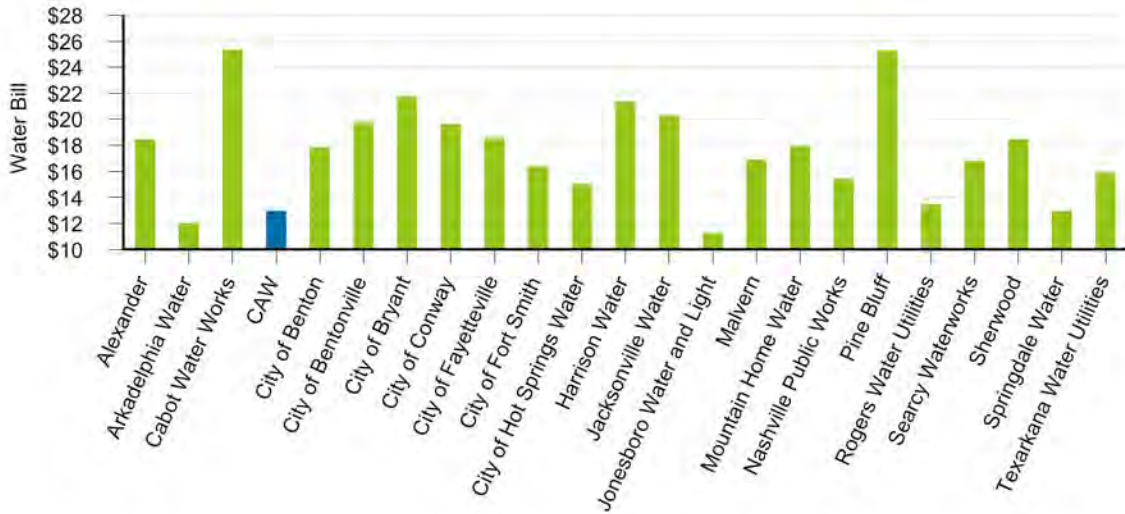
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<b>CAW Rate Comparison - Residential (2018)<sup>17</sup></b>			
<b>5/8" - Meter</b>			
<i>Water Provider</i>	<i>Residential (3.7k Gallons)</i>	<i>Residential (7.35k Gallons)</i>	<i>Residential (11.2k Gallons)</i>
Alexander	18.47	32.12	45.77
Arkadelphia Water	11.97	20.18	27.80
Cabot Water Works	25.34	40.00	55.54
<b>CAW</b>	<b>12.98</b>	<b>21.53</b>	<b>30.08</b>
City of Benton	17.83	31.41	44.63
City of Bentonville	19.74	33.73	47.49
City of Bryant	21.74	43.59	64.86
City of Conway	19.64	29.18	39.24
City of Fayetteville	18.56	33.80	48.63
City of Fort Smith	16.37	31.17	45.97
City of Hot Springs Water	15.02	25.35	36.08
Harrison Water	21.35	39.21	56.60
Jacksonville Water	20.27	44.48	68.04
Jonesboro Water and Light	11.25	18.85	26.25
Malvern	16.90	33.43	49.52
Mountain Home Water	17.96	27.65	37.08
Nashville Public Works	15.44	26.05	36.37
Pine Bluff	25.27	35.40	45.54
Rogers Water Utilities	13.47	24.83	35.89
Searcy Waterworks	16.80	24.75	32.48
Sherwood	18.47	32.12	45.77
Springdale Water	12.97	24.64	36.00
Texarkana Water Utilities	15.89	29.61	42.96

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# CAW Water Rate Comparison - Residential

(3.7k Gallons)



<b>Pulaski County Largest Employers (2018)<sup>15</sup></b>	
State of Arkansas	Government
Local Government	Government
Federal Government	Government
University of Arkansas for Medical Sciences	Education / Medical Services
Baptist Health System	Medical Services
Little Rock Air Force Base	Government
Arkansas Children's Hospital	Medical Services
Central Arkansas Veterans Health Care Systems	Medical Services
Little Rock School District	Education
CHI St. Vincent	Medical Services

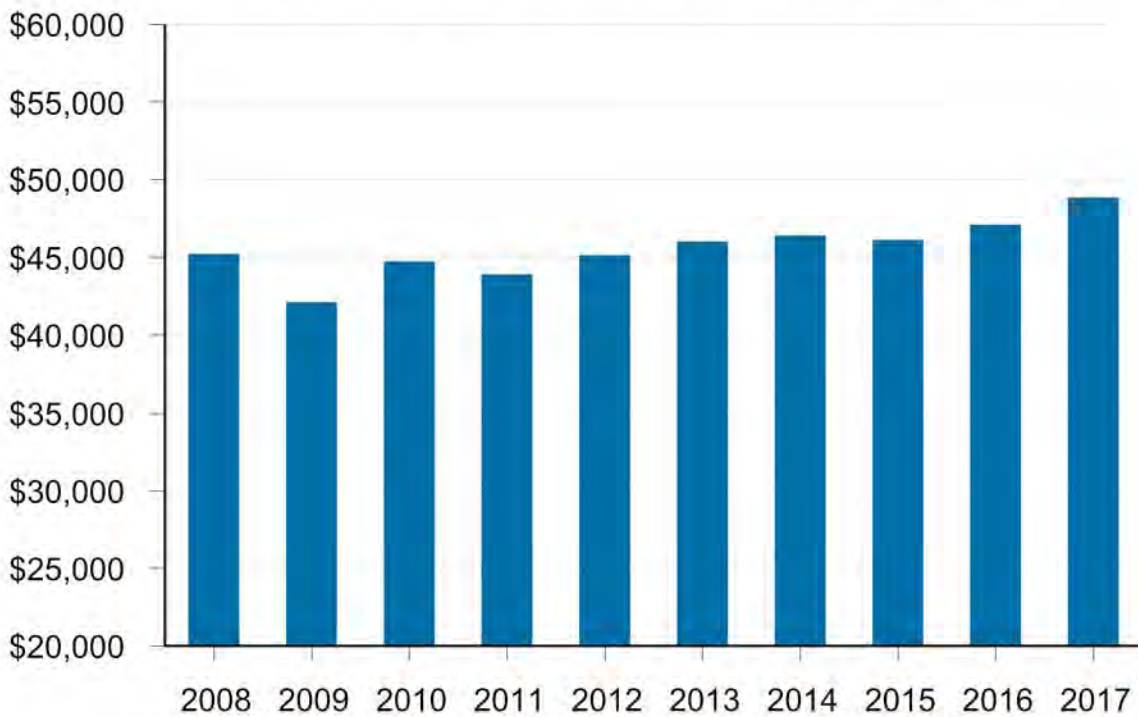


<b>Arkansas' Ten Largest Cities by Population<sup>16</sup>            Unemployment Percentage Rate (2018)<sup>5</sup></b>	
Little Rock	3.4%
Fort Smith	3.6%
Fayetteville	2.6%
Springdale	2.5%
Jonesboro	3.0%
North Little Rock	3.7%
Conway	3.1%
Rogers	2.6%
Pine Bluff	6.2%
Bentonville	2.5%

<b>Pulaski County – Median Household Income<sup>4</sup></b>	
<i>Year</i>	<i>Per Capita Income</i>
2008	45,215
2009	42,107
2010	44,733
2011	43,898
2012	45,135
2013	46,013
2014	46,410
2015	46,140
2016	47,101
2017	48,850

Median Household Income is a direct reflection of the local economy and residents' ability to pay water billings. During improving economic times, CAW expects to have fewer and smaller write-off accounts.

**Pulaski County - Median Household Income**

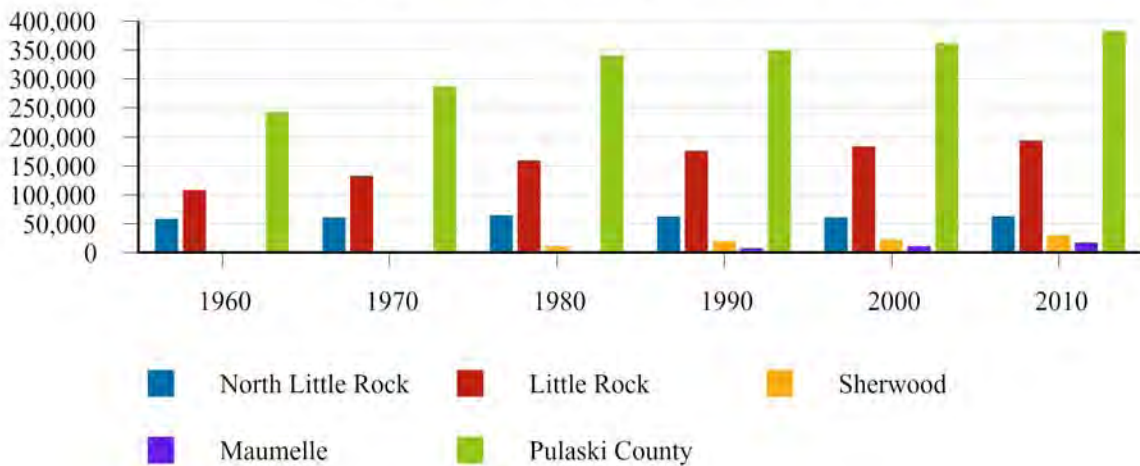




County and State Unemployment <sup>5</sup>		
Year	Pulaski County	State of Arkansas
2009	6.3%	7.4%
2010	7.1%	7.9%
2011	7.2%	7.9%
2012	6.6%	7.3%
2013	6.0%	7.5%
2014	5.6%	6.1%
2015	5.1%	3.9%
2016	3.4%	3.8%
2017	3.4%	3.6%
2018	3.4%	3.7%

Population by Decade					
Year	Little Rock <sup>4</sup>	North Little Rock <sup>11</sup>	Sherwood <sup>12</sup>	Maumelle <sup>13</sup>	Pulaski County <sup>4</sup>
1960	107,813	58,032	222	N/A	242,980
1970	132,483	60,040	2,754	N/A	287,189
1980	159,151	64,388	10,423	N/A	340,597
1990	175,795	61,741	18,893	6,714	349,660
2000	183,133	60,433	21,511	10,557	361,474
2010	193,524	62,304	29,523	17,163	382,748

### Population by Decade



CAW's Ten Largest Customers Percent of Revenues (2018)	
Salem Water Users Public Water Authority	2.07%
Jacksonville Water Works	2.05%
Bryant Water and Sewer Department	1.88%
Arkansas Electric Cooperative	0.61%
Kimberly-Clark	0.35%
Cabot Waterworks	0.34%
University of Arkansas for Medical Sciences	0.34%
Arkansas Department of Corrections	0.31%
Shannon Hills Water Department	0.27%
Baptist Health Medical Center	0.23%

#### Sources:

- <sup>1</sup> "About Pulaski County." *Pulaski County*, pulaskicounty.net/about-us/. Accessed 10 September 2019.
- <sup>2</sup> "Little Rock-North Little Rock-Conway, AR (MSA)." *Bureau of Economic Analysis*, <http://www.apps.bea.gov/regional/bearfacts/msabf.cfm>. Accessed 10 September 2019.
- <sup>3</sup> "Little Rock: Economy - Major Industries and Commercial Activity, *City-Data*, [www.city-data.com/us-cities/The-South/Little-Rock-Economy.html](http://www.city-data.com/us-cities/The-South/Little-Rock-Economy.html). Accessed 10 September 2019.
- <sup>4</sup> "Quick Facts Little Rock and Pulaski County." *United States Census Bureau*, <https://www.census.gov/quickfacts/fact/table/pulaskicountyarkansas,littlerockcityarkansas/PST045218>. Accessed 10 September 2019.
- <sup>5</sup> "Discover Arkansas Your Labor Market Information Source." *Discover Arkansas*, Arkansas Department of Workforce Services, December 2018, <http://www.discover.arkansas.gov/Publications/PublicationsContainer/category/2018-1pdf>. Accessed 10 September 2019.
- <sup>6</sup> "Census Data." Little Rock Demographic Fact Sheet, *Metroplan*, June 2011, [http://www.metroplan.org/sites/default/files/LittleRock\\_FactSheet2010.pdf](http://www.metroplan.org/sites/default/files/LittleRock_FactSheet2010.pdf). Accessed 10 September 2019.
- <sup>7</sup> "Census Data." Pulaski County Demographic Fact Sheet, *Metroplan*, June 2011, <http://www.metroplan.org/sites/default/files/PulaskiCo-FactSheet2010.pdf>. Accessed 10 September 2019.
- <sup>8</sup> "Census Data." North Little Rock Demographic Fact Sheet, *Metroplan*, June 2011, [www.metroplan.org/sites/default/files/NorthLittleRock\\_FactSheet2010.pdf](http://www.metroplan.org/sites/default/files/NorthLittleRock_FactSheet2010.pdf). Accessed 10 September 2019.
- <sup>9</sup> "Census Data." Sherwood Demographic Fact Sheet, *Metroplan*, June 2011, [www.metroplan.org/sites/default/files/media/data/Sherwood\\_FactSheet2010.pdf](http://www.metroplan.org/sites/default/files/media/data/Sherwood_FactSheet2010.pdf). Accessed 10 September 2019.
- <sup>10</sup> "Census Data." Maumelle Demographic Fact Sheet, *Metroplan*, June 2011, [www.metroplan.org/sites/default/files/Maumelle\\_FactSheet2010.pdf](http://www.metroplan.org/sites/default/files/Maumelle_FactSheet2010.pdf). Accessed 10 September 2019.
- <sup>11</sup> "Quick Facts North Little Rock." *United States Census Bureau*, [www.census.gov/quickfacts/fact/table/northlittlerockcityarkansas/RH1825218](http://www.census.gov/quickfacts/fact/table/northlittlerockcityarkansas/RH1825218). Accessed 10 September 2019.
- <sup>12</sup> "Quick Facts Sherwood." *United States Census Bureau*, [www.census.gov/quickfacts/fact/table/sherwoodcityarkansas/POP715217](http://www.census.gov/quickfacts/fact/table/sherwoodcityarkansas/POP715217). Accessed 10 September 2019.
- <sup>13</sup> "Quick Facts Maumelle." *United States Census Bureau*, <https://www.census.gov/quickfacts/fact/table/maumellecityarkansas/LND110210>. Accessed 10 September 2019.
- <sup>14</sup> "Maumelle, AR Unemployment Rate Report." *Home Facts*, <https://www.homefacts.com/unemployment/Arkansas/Pulaski-County/Maumelle.html>. Accessed 10 September 2019.
- <sup>15</sup> "Major Employers." *Little Rock Chamber*, <https://www.littlerockchamber.com/major-employers.html>. Accessed 10 September 2019.
- <sup>16</sup> "Arkansas Bigger Cities (over 6000 residents)." *City-Data*, [www.city-data.com/city/Arkansas.html](http://www.city-data.com/city/Arkansas.html). Accessed 10 September 2019.
- <sup>17</sup> CAW Survey, Arkansas Water Rates, July 2018.

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## Glossary of Key Budget Terms

**Accounting Standards** – the financial statements are prepared in accordance with principles generally accepted in the United States of America and all applicable pronouncements of the GASB.

**Accrual Basis of Accounting** – a basis of accounting that recognizes the financial effect of transactions when such transactions occur, regardless of the timing of the related cash flow.

**Balanced Budget** – planned expenses do not exceed estimated financial resources available for a specified period.

**Board of Commissioners** – the seven-member board that governs Central Arkansas Water.

**Biota** – the total collection of organisms in a region, or a time period. The biota of the Earth make up the biosphere.

**Bonds** – certificates of indebtedness issued by an entity that guarantees payment of principal and interest at a future date.

**Budget** – an annual financial plan that identifies revenue sources and amounts, services to be provided, and amounts of money to fund said services.

**Capital Assets** – assets that have an initial value or cost greater than or equal to \$5,000 and an estimated useful life greater than one year.

**Capital Outlay** – fund disbursements for the purchase of capital assets, such as furniture, vehicles, machinery, and building improvements.

**Clean Water Act** – the Federal law that establishes how the United States will restore and maintain the chemical, physical, and biological integrity of the country's waters (oceans, lakes, streams and rivers, ground water, and wetlands.) The law provides protection for the country's waters from both point and non-point sources of pollution.

**Commercial Customers** – all customers receiving water service at (i) a building containing two or more apartments or family units that are rented or leased to tenants as residences and that are not separately metered; (ii) a building occupied by a retail or service business; (iii) a building owned or occupied by a public utility, a department of a municipality, or a State or Federal government agency; or (iv) a non-residential customer that does not fit the definition of an Large Volume Customer.

**Contributions-in-aid-of-construction** – funds or equity contributed by customers, developers, or other entities for improvements and/or extensions to the Utility’s assets.

**Contractual Services** – goods and services that Central Arkansas Water acquires under contract from an outside company or vendor. Professional services and insurance are examples of contractual services.

**Debt Service** – expenses for principal and interest on outstanding bond issues.

**Debt Service Reserves** – funds used to pay debt service of revenue bonds, if the sources of the pledged revenues do not generate sufficient funds to satisfy the debt service requirements. Debt Service Reserves are funded in whole or part from the proceeds of the bonds or are allowed to gradually accumulate over a period of years through required payments from the pledged revenues.

**Depreciation** – an accounting allocation of a portion of the cost of a capital asset to the operating expenses of the current fiscal period.

**Enterprise Fund** – a self-contained governmental fund operated to account for services supported by user charges and fees.

**Expenses** – the cost of doing business in a proprietary organization. Expenses may be either direct outflows or the using up of an asset, such as the depreciation of capital assets.

**Fiscal Year** – a period of 12 consecutive months designated as the budget year. Central Arkansas Water’s fiscal year is the calendar year.

**Fund** – an accounting entity with a set of self-balancing accounts that is used to account for financial transactions for specific activities. CAW is accounted for as a stand-alone enterprise fund.

**Gain/Loss on Sale of Assets** – income or expense that is based upon the amount of proceeds compared to the net book value of the capital assets.

**Generally Accepted Accounting Principles (GAAP)** – the conventions, rules, and procedures that serve as the norm for the fair presentation of financial statements.

**Governmental Accounting Standards Board (GASB)** – the board that establishes generally accepted accounting principles for state and local governmental units.

**Horizontal Asset** – underground assets such as pipelines, vaults, valves, etc.

**Investment** – securities purchased and held for the production of revenues in the form of interest.

**Large Volume Customers** – any Commercial Customer (i) who uses at least 1,500,000 cf of water per meter during the 12-month period from September 1 to August 31, or (ii) who agrees to take or pay for a minimum of 125,000 cf of water per meter per month on an annual basis. Customers who qualify for large volume service described in (i) above shall be assigned to the large volume class for the calendar year beginning the following January.

**Long-Term Debt** – debt with a maturity of more than one year from date reported.

**Maintenance** – the use of materials and services in the effort to renew, repair, or renovate existing land, structures, vehicles, and equipment.

**Net Revenues** – revenues less operating and maintenance expenses (excluding depreciation and amortization) and PILOT.

**Non-operating Revenue and Expense** – all revenues and expenses that do not meet the definitions of operating revenues and operating expenses.

**Operating Expenses** – costs required to provide service or maintain principal ongoing operations.

**Operating Revenues** – sources of income that are in connection with principal ongoing operations.

**Payment-in-lieu-of-taxes (PILOT)** – negotiated payment to local government in lieu of property tax.

**Rating** – an indication of the likelihood that an obligation will be re-paid.

**Raw Water** – untreated water.

**Residential Customers** – all customers receiving water service at a single building or building unit that is owned, leased, or rented by one party, separately metered, and occupied as a residence.

**Retail Water Sales** – includes Residential, Commercial, Large Volume, Sprinkler, and Raw Water Metered Services, as well as Private Fire Services.

**Safe Drinking Water Act (SDWA)** – Federal legislation passed in 1974 that regulates the treatment of water for human consumption and requires testing for and elimination of contaminants that might be present in the water.

**Senior Debt** – debt that takes priority over other debt securities sold by the issuer. Senior debt includes the Series 2010A, Series 2010C, Series 2011A, Series 2012A, Series 2014, Series 2015, Series 2016 Refinance Bonds, Series 2018A, and Series 2018B.

**Sprinkler Customers** – all customers receiving separately-metered water service used exclusively for irrigation sprinkler systems or other outdoor purposes.

**Subordinated Debt** – debt that ranks below other debt with regard to claims on revenues. Subordinated debt includes the Series 2016 Maumelle Acquisition and Construction Bonds.

**System Development Charges (SDC)** – a one-time connection charge that provides a means for financing a portion of the source of supply, raw water transmission facilities, treatment plants, and treated water transmission facilities required to provide service to a new customer.

**Wholesale Customers** – all customers purchasing water through a wholesale meter contract.

## Glossary of Acronyms and Abbreviations

<b>A&amp;D</b>	Analysis and Design
<b>ADH</b>	Arkansas Department of Health
<b>ANRC</b>	Arkansas Natural Resources Commission
<b>APERS</b>	Arkansas Public Employees Retirement System
<b>ARDOT</b>	Arkansas Department of Transportation
<b>ASA</b>	Average speed of Answer
<b>AWWA</b>	American Water Works Association
<b>BCEE</b>	Board Certified Environmental Engineer
<b>CAFR</b>	Comprehensive Annual Financial Report
<b>CAW</b>	Central Arkansas Water
<b>CAW-U</b>	CAW University
<b>CCCP</b>	Cross-Connection Control Program
<b>CCMP</b>	Certified Change Management Professional
<b>CEO</b>	Chief Executive Officer
<b>CF</b>	Cubic Feet
<b>CFO</b>	Chief Financial Officer
<b>CGFM</b>	Certified Government Financial Manager
<b>CIC</b>	Capital Investment Charges
<b>CINO</b>	Chief Innovation Officer
<b>CIP</b>	Capital Improvement Plan
<b>CIS</b>	Customer Information System
<b>COO</b>	Chief Operating Officer
<b>CPA</b>	Certified Public Accountant
<b>DMS</b>	Document Management System
<b>EHS</b>	Environmental Health and Safety
<b>EUM</b>	Effective Utility Management
<b>FCS</b>	Field Collections System
<b>FLOW</b>	Find Logical Opportunities and Wins
<b>FLP</b>	Forest Legacy Project
<b>G/L</b>	General Ledger
<b>GAAP</b>	Generally Accepted Accounting Principles
<b>GAC</b>	Granular Activated Carbon
<b>GASB</b>	Governmental Accounting Standards Board
<b>GC</b>	General Counsel
<b>GDP</b>	Gross Domestic Product



<b>GFOA</b>	Government Finance Officers Association
<b>GIS</b>	Geographic Information System
<b>GPS</b>	Global Positioning System
<b>HDHP</b>	High Deductible Health Plan
<b>HIVIP</b>	High performing, Innovative, Values-Driven, Informed and Passionate
<b>IS</b>	Information Services
<b>ITMP</b>	Information Technology Master Plan
<b>J.D.</b>	Juris Doctorate
<b>JTH</b>	James T. Harvey Administration Building
<b>LIMS</b>	Laboratory Information Management System
<b>LL.M</b>	Master of Laws
<b>MAWA</b>	Mid-Arkansas Water Alliance
<b>MG</b>	Million Gallons
<b>MGD</b>	Million Gallons per Day
<b>MLGW</b>	Memphis Light, Gas, and Water
<b>MWM</b>	Maumelle Water Management
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NTU</b>	Nephelometric Turbidity Unit
<b>OSHA</b>	Occupational Safety & Health Administration
<b>PAFR</b>	Popular Annual Financial Report
<b>P.E.</b>	Professional Engineer
<b>PER</b>	Preliminary Engineering Report
<b>Ph.D.</b>	Doctor of Philosophy
<b>PILOT</b>	Payment-in-lieu-of-taxes
<b>PPO</b>	Preferred Provider Organization
<b>PTM</b>	Project Team Member
<b>P/T</b>	Part-Time
<b>RFP</b>	Request for Proposal
<b>SCADA</b>	Supervisory Control and Data Acquisition System
<b>SDC</b>	System Development Charge
<b>SDWA</b>	Safe Drinking Water Act
<b>SHRM</b>	Society for Human Resource Management
<b>SHRM-SCP</b>	SHRM Senior Certified Professional
<b>SOP</b>	Standard Operating Procedure
<b>SPHR</b>	Senior Professional in Human Resources
<b>TCR</b>	Total Coliform Rule
<b>TTHM</b>	Total Trihalomethanes

<b>TOC</b>	Total Organic Carbon
<b>UPS</b>	Uninterruptible Power Supply
<b>USACE</b>	United States Army Corps of Engineers
<b>USGS</b>	U.S. Geological Survey
<b>WAN</b>	Wide Area Network
<b>WGF</b>	Winrock Grass Farm
<b>WMP</b>	Watershed Management Plan
<b>WPF</b>	Watershed Protection Fee



## CAW AWARDS 2001 - 2019

Gold Award for Exceptional Utility Performance, AMWA, 2001  
 America's Crown Communities Award, National League of Cities, 2001  
 Big Heart Award, Watershed Human and Community Development Agency, 2005  
 Public Agency of the Year, Sierra Club of Arkansas, 2006  
 The International Davey Award, 2012  
 Platinum Award for Utility Excellence, AMWA, 2012  
 Jack Evans Regional Leadership Award, Metroplan, 2012  
 Diversity Award, AWWA, 2013  
 Leadership in Fitness Award, AR Governor's Council on Fitness and Baptist Health, 2013  
 Best Tasting Drinking Water, Central District AWW&WEA, 2014 – 2015  
 Government Recycler of the Year Award, Arkansas Recycling Coalition, 2015  
 Sustainable Water Utility Management Award, AMWA, 2015  
 Best Tasting Drinking Water in Arkansas AWW&WEA, 2018  
 GFOA Certificate of Achievement for Excellence in Financial Reporting, 9 years  
 GFOA Distinguished Budget Presentation Award, 10 years  
 GFOA Award for Outstanding Achievement in Popular Annual Financial Reporting, 2018  
 Outstanding Performance Award, Arkansas Workers' Compensation Commission, 16 years  
 Patriot Award, Employer Support of the Guard and Reserve, 2019  
 Best Places to Work in Arkansas, Arkansas Business, 2019  
 Best Tasting Drinking Water, Southwest Section AWWA, 2019

## CAW STAFF AWARDS 2001 - 2019

### GLEN T. KELLOGG LEADERSHIP AWARD RECIPIENTS

Fred Glover, 2001	Marie Crawford, 2007
Steve Morgan, 2002	Robert Hart, 2012
Bruno Kirsch, Jr., 2006	Dale Kimbrow, 2014
Ron Brown, 2006	Blake Weindorf, 2016

### WATER MANAGER OF THE YEAR, AWW&WEA, 2017

Terry Bice

### PURCHASING MANAGER OF THE YEAR, NIGP, 2016

Elizabeth Tuck-Rowan

### SAFETY PROFESSIONAL OF THE YEAR, AWEA, 2014

Robert Martin

### STEM PROFESSIONAL EDUCATOR OF THE YEAR, UALR, 2018

Jane Hurley

### EDWARD J. ERXLEBEN AWARD, NIGP, 2018

Elizabeth Tuck-Rowan

### GEORGE WARREN FULLER AWARD, SOUTHWEST SECTION AWWA, 2019

Blake Weindorf

### HYDRANT HYSTERIA TEAM – FIRST PLACE, SOUTHWEST SECTION AWWA, 2019

Kim Hamby and Angela Rice

