

# 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

- PROFESSIONALISM: I will be courteous and responsible in my dealings with others and will adhere to the technical and professional standards of my job.
- INTEGRITY: 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.
- CONTINUAL 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.
- **EAMWORK:** I will support my co-workers with enthusiasm, work collaboratively and do my part to ensure Central Arkansas Water achieves its goals.
- UNITY: 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.
- **EXCELLENCE:** 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, 2017** 

Christopher P. Morrill

**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 2017 annual budget.

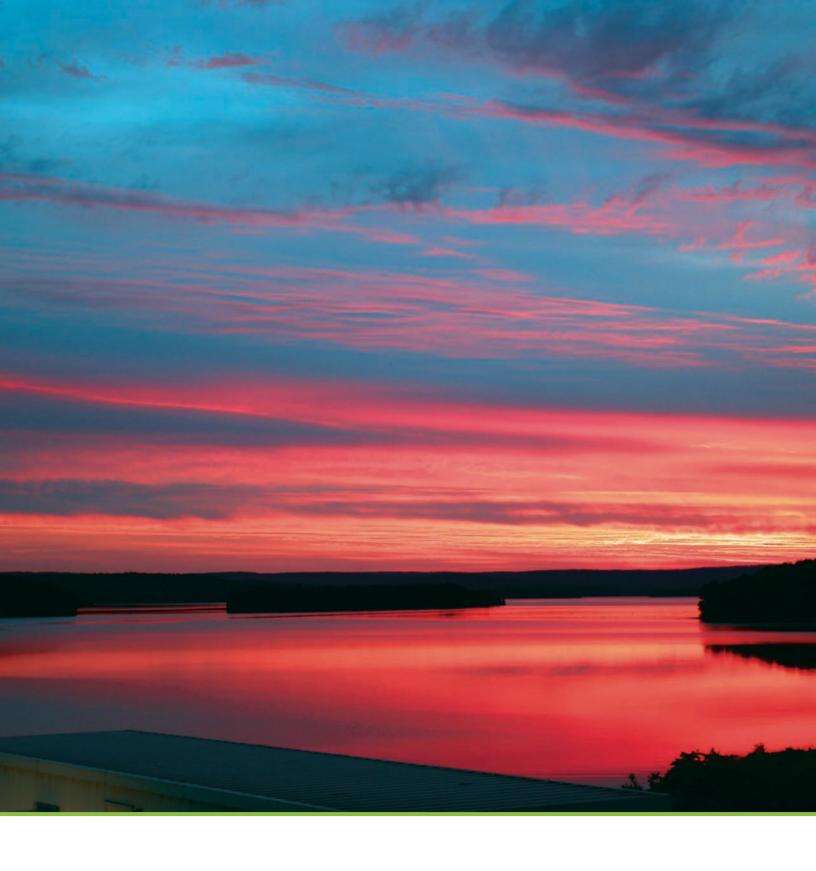
In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operation guide, as a financial plan, and as a communication device.

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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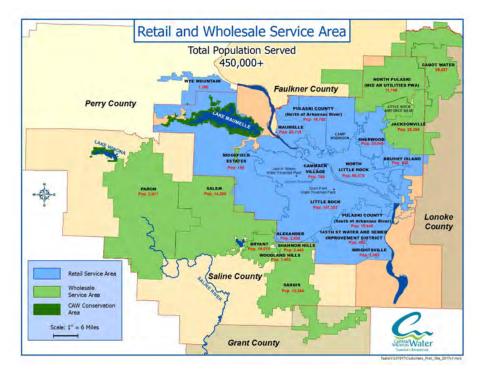
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# INTRODUCTION

# **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 184,000 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

In addition, CAW provides all of the treated water supply for the cities of Bryant and Shannon Hills in Saline County, and Ridgefield Estates Public Facilities Board in Pulaski County. The Utility provides a supplemental water supply to Jacksonville Water Works in Pulaski County, whose service area includes the Little Rock Air Force Base; the Salem Water Users Association in Saline County; Sardis Water Association, which serves parts of Saline and Grant counties; Cabot Waterworks in Lonoke County; Mid-Arkansas Utilities, which serves parts of Pulaski and Faulkner Counties; and Saline County Water & Sewer Public Facilities Board (Woodland Hills) in Saline County.

#### 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.

Beginning in the mid 1870s, water was pumped directly from the Arkansas River into the distribution system. This water supply was good for firefighting, but the untreated water was not ideal for drinking. 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. In 1886, two basins were constructed on Ozark Point, which today is the site of the Ozark Point Water Treatment Plant (Ozark Point Plant). Water was pumped into the basins from the river and allowed to "settle" before flowing into the distribution system. The process significantly increased the water quality at the time.

From the late 1880s to the mid 1930s, a succession of investor-owned utilities served Little Rock and North Little Rock. On the north side of the Arkansas River, the private interests included Home Water Company, Little Rock Water Works Company, American Water Works & Electric Company, Arkansaw Water Works Company, and North Little Rock Water Company. The private interests on the south of the river included the same private companies operating in North Little Rock with the exception of the North Little Rock Water Company.

The Arkansaw Water Works Company owned the Little Rock system from 1910 to 1936. In 1936, the City of Little Rock, after securing a Federal grant and loan through the U.S. Federal Emergency Administration of Public Works, purchased all facilities serving the south side of the river. The North Little Rock Water Company owned the water system on the north side of the Arkansas River from 1936 to 1959, when the City of North Little Rock purchased the facilities serving its corporate boundaries and its rural customers.



Late 1920s - Arkansaw Water Company provides water to citizens and businesses on Main Street, south from Markham Street

At this time, the City of Little Rock and the 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.

By 1947, Lake Winona had been serving the Central Arkansas Water area for a decade. Studies showed fast growth and demand for water service in the region. As a result, Lake Maumelle was built. By 1958, Lake Maumelle's water flowed into the system for the first time. Lake Maumelle was built to be much bigger than Lake Winona and encompasses 13.9 square miles. The Jack H. Wilson Water Treatment Plant (Wilson Plant) began treating water in 1966. Expansions, over the years in 1977, 1984, and 1999, have taken its treatment capacity from its original 25 million gallons per day (MGD) to 133 MGD, as well as its storage capacity of five million gallons to 15 million gallons. Water flows through 9.3 miles of 48 inch pipe to the Wilson Plant and on to Jackson Reservoir and 7.8 miles of 72 inch pipe from Lake Maumelle to the Wilson Plant.

In 2000, 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.

The merger was the first of its kind 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.

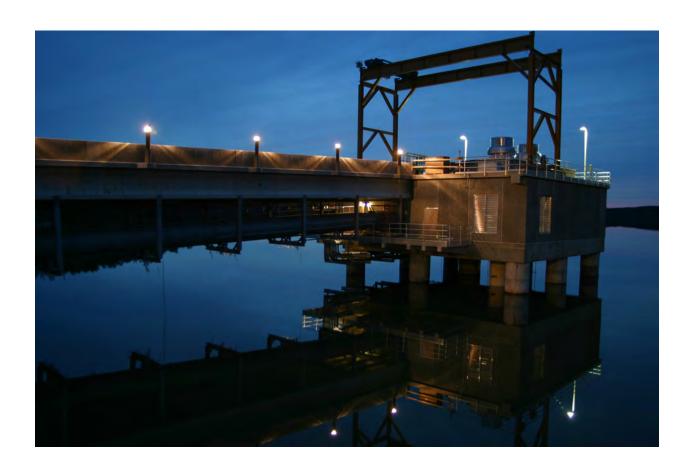
In the fall of 2016, CAW commenced work on the 2020 Strategic Plan, CAW's third strategic planning document. Operations, goals, and objectives remain greatly influenced by the

ten attributes of Effective Utility Management (EUM), and CAW's 2020 Strategic Plan adopts seven related strategic initiatives designed to help the utility focus its efforts through 2020 and beyond. Further details on the goals of the 2020 Strategic Plan are presented in the Strategic Plan section of this document.

#### **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 eight departments: Administration, Distribution, Engineering, Finance, Customer Service, Information Services (IS), Water Production, and Water Quality (WQ).

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.



The major components of the system are:

# Raw Water Supply

- Lake Winona
- Lake Maumelle
- Maumelle Well Field (to be closed in 2018)

# Regulating Water Storage Facility

Jackson Reservoir

#### Pipeline

2,502 +/- miles of pipeline

#### Booster Stations

26 booster pumping stations

#### • Remote Storage

29 remote storage facilities

#### Treatment Facilities

- Jack H. Wilson Water Treatment Plant (Wilson Plant)
- Ozark Point Water Treatment Plant (Ozark Point Plant)
- Maumelle Water Management Treatment Plant (MWM Plant) (to be closed in 2018)



The Utility's service boundaries encompass approximately 530 square miles. The combined safe yield from the two surface water sources is 120 MGD. The maximum treatment capacity of the Wilson Plant is 133 MGD, and the treatment capacity of the Ozark Point Plant is 24 MGD. The Maumelle Well Field provides a safe yield of 9.5 MGD, and the MWM Plant has a maximum treatment capacity of 6.8 MGD. The Maumelle Well Field and MWM Plant will be closed in early 2018. The Utility has 50.8 MG in remote storage capacity serving 22 pressure systems and another 25 MG in storage at the treatment plants.

#### **CAW's Future**

A major objective of the Utility is to secure future water sources for Central Arkansas. CAW is a member of the Mid-Arkansas Water Alliance (MAWA), which, in collaboration with the Metroplan Council of Local Governments, is leading a regional initiative to develop water sources that will meet the region's needs through the 21st century. CAW's Manager of Planning, Regionalism, and Future Water Source serves on MAWA's Board of Directors and has continuously served as president of that organization for the past five years. Metroplan, which serves the four-county region of Pulaski, Saline, Lonoke, and Faulkner, along with officials of other cities and rural areas, is an integral partner in the effort.

In 2013, MAWA reached an agreement with the U.S. Army Corps of Engineers (the Corps) 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 on average.

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 the Corps in early 2015 for an additional 15 MGD from Greers Ferry Lake. This second allocation request is pending before the Corps. The Arkansas U.S. congressional delegation is assisting and advising in MAWA's effort to secure this second allocation request.

This regional 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.

The Utility is continuing negotiations with the Corps and the Southwest Power Administration (SWPA) to purchase water rights to 100 MGD in DeGray Lake. The Utility has owned the right of first refusal to 120 MGD in DeGray Lake since 1988. In 2013, CAW assigned the City of Hot Springs an option for up to 20 MGD, and, shortly thereafter, CAW informed the Corps that CAW desires to exercise its option to acquire the storage space in DeGray Lake for the remaining 100 MGD. CAW and the City of Hot Springs are currently negotiating the terms and conditions of the Water Storage Agreement that each party will execute with the Corps. The general terms of the proposed Water Storage Agreement have been agreed upon, but negotiations continue on details regarding electrical generation charges that the Corps seeks to recover and that CAW does not believe are appropriate. Negotiations continue to be finalized with both the Corps and SWPA with the hope that an agreement can be executed in mid-2018. The additional 100 MGD will help meet the water needs of the Central Arkansas area through the middle of the next century.





On March 1, 2016, CAW officially merged with Maumelle Water Management (MWM). MWM provided water to the city of Maumelle in Pulaski County. At the time of the merger, CAW assumed ownership of all water related assets of MWM, including the Maumelle Well Field consisting of 13 wells, the MWM plant, 114 miles of water mains, two water storage tanks, two booster pump stations, and 675 fire hydrants.



Completion of a 30-inch transmission main connecting the MWM service area to the CAW distribution system will mark one of the final major milestones for integrating the two systems. This new transmission main will enable CAW to provide a sufficient supply of water that will satisfy Maumelle peak water demands at full build-out, eliminating the risk

of repeating the water shortages experienced in 2012 by MWM. The consolidation also allows CAW to utilize stranded capital investments in the vicinity of MWM's service area, as well as available supply and treatment capacity made available by reduced wholesale demand. Customers of the MWM service area are bearing the costs of the consolidation with CAW through transition surcharges added to their monthly water bills. Consolidation with MWM will have little long-term impact on CAW's capacity. Even at full-build out, MWM's peak demand represents only 6.7% of CAW's treatment capacity.



Beginning in late 2017, CAW will embark on a multi-year project to analyze and streamline current business processes, define necessary requirements, improve effective and efficient utilization of technology when appropriate, and select a new customer information system (CIS). The CIS is an extremely 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 close to 20 years, a combination of utility growth and processes that have not evolved at the pace of available technology have revealed shortcomings with CAW's business processes and the current CIS. CAW contracted with EMA, Inc. during 2017 to conduct a comprehensive review of CAW's information technology systems and uses, including the CIS. The assessment of CAW's current CIS and future CIS needs determined that CAW should seriously consider installation of a more robust CIS and that CAW should redesign many of its business processes to best leverage current and future technology.

Moving forward, CAW continues to explore strategic opportunities to expand its rate base where operationally and fiscally appropriate. Additionally, CAW will look to leverage its core competencies in operations and billing services to generate increased non-water related revenue sources to assist in funding necessary infrastructure replacements.



Jay Hartman Chair



Commissioners



Carmen Smith Vice Chair



John Braune Secretary/Treasurer



Kandi Hughes Member



Eddie Powell Member



Roby Robertson, Ph.D. Member



Anthony Kendall Member

# **Management Team**

C. Tad Bohannon, J.D, LL.M Chief Executive Officer

Thad Luther, P.E., BCEE Chief Operating Officer

David Johnson, J.D. General Counsel

Becky Linker Chief Administrative Officer

**Jeff Mascagni, CPA, CGFM**Chief Financial Officer

**Douglas Shackelford**Director of Public Affairs and Communications

Terry Bice Director of Distribution

**Jim Ferguson, P.E.** Director of Engineering

**Kevin Hall** Director of Environmental Health and Safety

Allen Vincent Director of Information Services

Sam Zehtaban Director of Water Production

Randy Easley Director of Water Quality

# **Financial Plan Development Team**

Jeff Mascagni, CPA, CGFM Chief Financial Officer

**Todd Fisher, CPA** Finance Manager

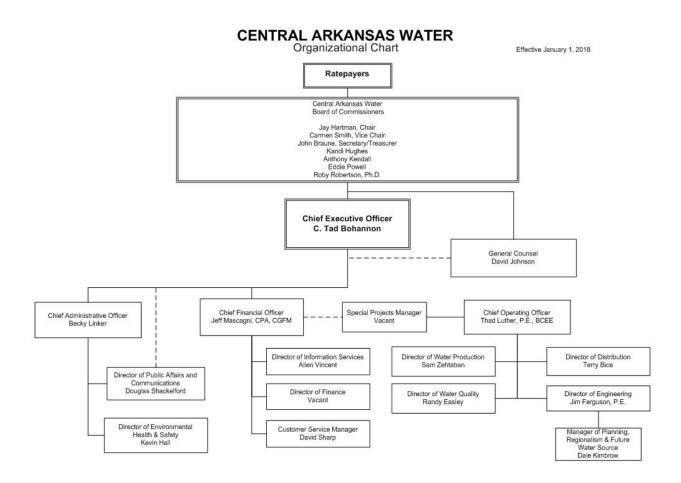
Cynthia Edwards, CPA Controller

Sherry Lippiatt General Accountant

**Leo O'Bannion** General Accountant

Gloria McKenzie Accounting Clerk II

Becky Linker Chief Administrative Officer



November 16, 2017

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



# RE: 2018 Financial Plan – Budget Message

Board of Commissioners, Customers, and Other Interested Stakeholders:

Staff respectfully presents the 2018 Financial Plan for Central Arkansas Water. Consistent with prior financial plans, this document was developed to continue to fulfill the Utility 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."

This document 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 32. Associated performance measures are discussed in more detail within the department narratives (pages 165 - 222).

# **Water Source and Water Quality Challenges**

CAW has and will continue to encounter many challenges as it works to fulfill this mission. Absent a catastrophic failure or natural disaster, CAW has sufficient water sources available at this time to cover projected customer needs through 2070 and beyond, considering current service area (both retail and wholesale), population growth rates, and the continued declining per capita water use. The proposed financial plan includes financing to purchase water rights that will 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 providing additional capacity to meet the water demands of the Central Arkansas area well beyond the middle of the 22nd century. The ongoing challenge for CAW will be to balance the costs of acquiring the additional water source 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 human induced threats such as pollution and wastewater intrusion, as well as natural threats such as wildfire and sediment originating in the watershed. Once water moves from the source, through the treatment plant and into the distribution system, new challenges arise. In addition to the ever changing regulatory challenges, customer concerns related to discolored water, taste and odors, and lead and copper drive the need for action.

The Pulaski County Quorum Court adopted a Lake Maumelle Watershed Zoning Code in April 2013 that established a number of 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 will be required to assess the impact both on water quality and watershed operations.

Water Quality staff is committed to improving water quality throughout the distribution system. These improvements can be accomplished by strategic operation of the distribution system to reduce water age, installation of treatment components throughout the system, and management of system chlorine residuals. Strategic initiatives are documented in CAW's 2020 Strategic Plan to improve the quality of water as it leaves the treatment plants and maintain that quality throughout the distribution system.

The best way to meet these challenges is to strive for continual improvement. It is important to always look at our processes and see what we can do better, whether equipment and process upgrades are necessary, or if the challenge is represented by human resources. 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.



# <u>Infrastructure Improvement or Replacement Challenges</u>

The renewal and replacement of aging infrastructure was the number one priority identified by respondents in the American Water Works Association's (AWWA) 2017 State of the Water Industry Report. That was also the top priority identified in the 2016 version of the report. Within this area, justifying such infrastructure programs to ratepayers was identified as the greatest obstacle in addressing the priority.

Like many larger U.S. water utilities, Central Arkansas Water has infrastructure that is over 100 years old, such as pipelines and treatment basins, but that continues to provide dependable service. Yet, maintaining and enhancing that infrastructure, whether 100 or one year in age, is a significant and ongoing challenge. The process for succeeding in that challenge is to identify infrastructure needs and priorities, estimate the capital costs, implement the financial mechanisms to pay for the project, and then repeat that procedure at regular intervals.

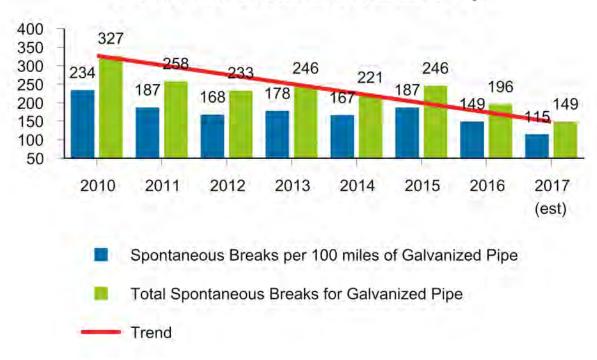
Major CAW infrastructure projects in 2018 include the completion of construction and the startup of the 30-inch transmission main to supply CAW water to the City of Maumelle, along with the decommissioning of the Maumelle source and treatment plant structures; the construction of distribution piping, storage tank, and pumping improvements within Maumelle; the start of construction for Phase 1 improvements to Pump Station No.1A at the Jack Wilson Treatment Plant; the detailed engineering design for the rehabilitation of the Ozark Point Treatment Plant; and miscellaneous distribution piping relocation and replacements. Projected 2018 costs for these and other infrastructure capital projects are over \$26 million.

By the end of calendar year 2017, CAW Distribution personnel will have replaced in a four year period over 48,000 feet of aging galvanized water mains. The savings realized as a result of CAW forces installing that pipe as compared to a private contractor is estimated at over \$1.5 million. That effort, combined with private contractor projects for replacement of the galvanized pipe, will have resulted in almost 83,000 feet of galvanized pipe being replaced in 2014-2017. That effort is bearing fruit as seen in the reduction of the number of breaks in galvanized mains shown in the graph on the following page. Replacement of these mains by both CAW personnel and by contractors will continue in future years.









Distribution crews are transitioning to portable tablet computers and taking advantage of an upgrade in the Utility's work management software (CityWorks) which CAW uses both for its infrastructure database and for generating work orders and recording their completion. The tablet computers receive and send data in 'real time' to ensure a faster update of CAW records, provide improved customer service, and increase personnel efficiency by eliminating the time previously spent having to download and upload information via fixed data stations in the office. Crews are also using global positioning system (GPS) equipment to complete the logging of the location of each customer's meter. This data will be loaded into CityWorks and the Utility's geographic information system (GIS) and will aid CAW crews in their response to main breaks and help to minimize the impact of those breaks on customers.

# **Employment Challenges**

Looking at the challenges that lie ahead, CAW will prepare for increasing competition for talent, changing demographics and multiple generations in the workforce, and increasing employee turnover in 2018 and beyond.

The Utility continues to support workforce succession preparedness through training and development of all employees, in coordination with the utility-wide succession plan. Successful efforts in this area have resulted in a significant increase in annual training hours (29 hours/employee), well above the QualServe standard (20 hours). Employee turnover has shown a decrease in 2017, following a significant increase in 2016 as members

of the baby boomer generation reached retirement age in increasing numbers. An increase to the internal advancement rate will be a continuing goal in 2018. The Utility will continue to focus on succession planning and workforce preparedness in 2018, which will be supported by new VIP<sup>2</sup> (Values-driven, Informed, and Passionate People) training initiatives which are designed to cultivate a high performing, innovative, values-driven, informed, and passionate workforce through training of all levels of employees and management staff.

Diversity continues to be promoted and celebrated through a positive, inclusive, and respectful work environment that unites co-workers by recognizing and appreciating our similarities and differences and effectively utilizing each individual's talents. Diversity and inclusion initiatives will include employee "Spotlights" in celebration of National Diversity Month, a celebration of employee heritages through introduction of a genealogy program, and continued support for the Just Communities of Arkansas (JCA) Walk for commUNITY.

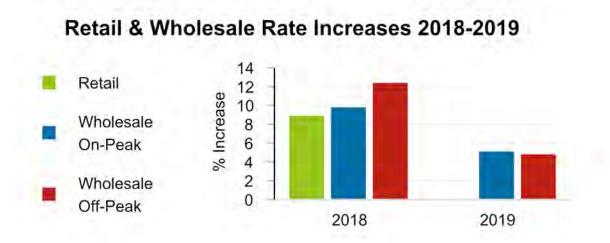
CAW will continue with steps to ensure compliance with Internal Revenue Service (IRS) reporting requirements that took effect under the Affordable Care Act in early 2016, the new Medical Marijuana Act of Arkansas, and revisions to other Federal or state employment regulations. The Utility continues to perform well in key employment-related areas: time to fill vacant positions is trending closely to the national average; annual turnover remains at less than half the national average; and cost of benefits declined slightly but remains just above national averages. Results of a recent survey indicates that employee satisfaction with their job and the Utility are both up by 12% compared to a survey conducted in 2014.

# **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 adopted in late 2015, retail consumption was adjusted down 1.0% from 2017 budget levels and is projected to decline an additional 1.0% in 2019. Wholesale consumption is projected to remain flat through 2020.

To support revenue requirements, the Commission approved a rate adjustment plan in December 2015 affecting charges in 2018 and 2019. The retail percentages shown in the following graph represent the impact on the average CAW inside city residential customer's bill. The wholesale percentages shown in the following graph represent the increase in the on-peak and off-peak rates.



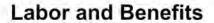
# **Economy and Budget Summary**

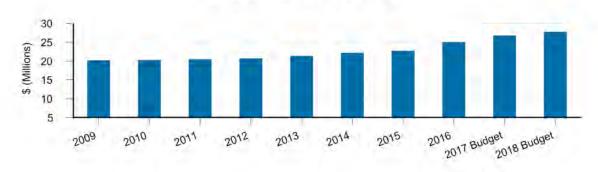
Real Gross Domestic Product (GDP) is expected to grow at an annual rate of 2.5%-3.0% over the last half of 2017, and full-year real GDP growing 2.1%, up from 1.5% in 2016. Forecasters predict real GDP will increase slightly to 2.4% in 2018, based on signs of economic growth tempered by uncertainty in the outcome of income tax reform currently before the US Congress. The forecasters predict a relatively static labor market with unemployment remaining at current levels for the remainder of 2017 through 2019. The national unemployment rate is currently (August 2017) 4.3%, down from 4.9% at this time last year. The unemployment rate in Pulaski County is currently at 3.5%, down slightly from 3.9% last year.

The Arkansas Realtors Association reports that home sales in Arkansas' top five markets (Pulaski, Benton, Washington, Saline, and Faulkner Counties) during the first half of 2017 are down 4.8% compared to 2016. Home sales in Pulaski County are down 3.7% for the first six months of 2017. Arkansas home prices are up 3.8% from a year ago.

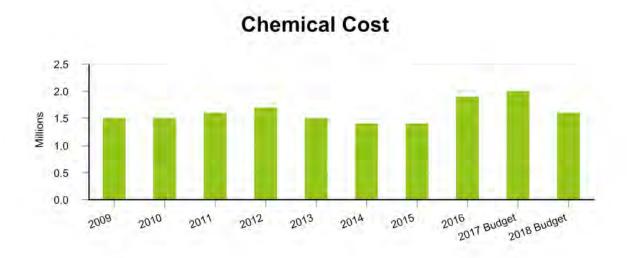
2018 Budget Changes from 2017 Budget			
Operating Revenues	\$ Change	% Change	
Increase in Retail Water Sales	2,668,619	5.27 %	
Increase in Wholesale Water Sales	235,000	5.78 %	
Increase in Penalties and Turn-on Charges	15,000	0.73 %	
Increase in Ancillary Charges	231,533	5.38 %	
Decrease in Maumelle Surcharge Revenue	(442,975)	(16.69)%	
Increase in Other Revenue	68,000	8.80 %	
Total 2018 Operating Revenues Budget	67,314,223	4.30 %	
Operating Expenses			
Increase in Labor and Benefits	997,905	3.73 %	
Increase in Materials, Supplies, and Maintenance	251,323	3.93 %	
Decrease in Electric and Other Utilities	(205,874)	(4.44)%	
Increase in Contract Services	194,859	6.06 %	
Decrease in Chemicals	(427,616)	(20.96)%	
Increase in Transition Cost - MWM	222,000	444.00 %	
Increase in Depreciation	106,569	0.86 %	
Decrease in Other	(81,192)	(19.19)%	
Total 2018 Operating Expenses Budget	56,967,236	1.89 %	
Capital Expenditures			
Increase in Capital Expenditures	7,379,300	29.61 %	
Debt Service			
Increase in Total Bond Debt Service	764,109	9.16 %	

The proposed budget for 2018 includes \$57.0 million in operating expenses, \$32.3 million in capital expenditures, and \$9.7 million in debt service. 2018 includes an increase of 5% in health care costs and wage adjustments of 3.0% for employees. The total wage adjustment increase will amount to \$841,000 including benefits, which represents 1.5% of the total operating budget. The increase in labor and benefits in 2016 through 2018 is partially attributed to the addition of staff gained through the MWM merger.





The trend in chemical cost has been relatively flat prior to 2015 but increased \$508,000 in 2016 and \$177,000 in 2017 primarily due to the addition of the MWM Water Treatment Plant. 2018 costs are expected to decrease by \$428,000 or 21%, due to the planned closure of the MWM Water Treatment Plant in the first quarter of 2018.



# **Proposed Financial Plan Highlights**

- 18.3 billion Gallons Consumption (0.8% decrease from 2017 Budget)
- \$67,314,223 Operating Revenues (4.3% increase from 2017 Budget)
- \$56,967,236 Operating Expenses (1.9% increase from 2017 Budget)
- 335 Funded Positions (increase of five compared to 2017 Budget)
- 8.9% Retail, 9.8% Wholesale On-Peak, and 12.4% Wholesale Off-Peak rate increases in 2018
- \$9,101,783 Bond Debt Service (9.2% increase from 2017 Budget)
- \$32,299,300 Capital Expenditures (29.6% increase from 2017 Budget)
- \$10,250,000 Capital Expenditures Funded From Rates (no change from 2017 Budget)
- \$750,000 Capital Expenditures Funded From Excess Working Capital (carryover from 2017 Budget)

# **Acknowledgment**

The 2018 Financial Plan is the culmination of continuous review and communications between the Finance department, department directors, and departmental staff over the

past three months. Departments again were asked to meet ambitious targets and rose to the challenge. This process could not have been completed without their assistance.

Respectfully submitted,

C. Tad Bohannon

Chief Executive Officer

CTB/jbm

# **Budget Process and Calendar**

The planning process for the Utility involves a water utility master plan; a strategic plan, updated every five years; a rate model, updated with a rate study every three years; a five-year capital plan, updated annually; and an operating budget, updated annually.

# 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.

#### Capital Improvement Plan

The 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 over the next five years to ensure adequate water resources, 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 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. A budget reallocation form must be completed and approved by the Chief Operating Officer (COO) and Chief Financial Officer (CFO) for any changes or reallocations during the plan year.

# The 2018 budgetary process is outlined below:

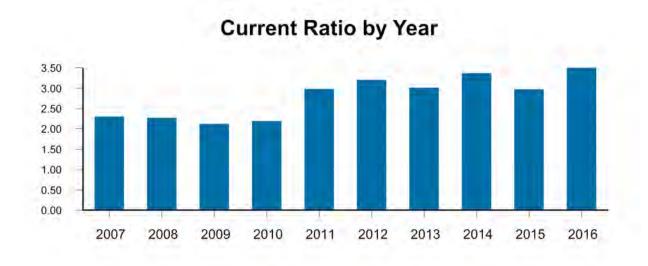
DATE	ACTIVITY
July 10, 2017	Initial budget meeting with overview of process and release of budget instructions/targets
August 7, 2017	Submission of budget requests to Finance
August 17, 2017	Departmental Review: Distribution and Administration
August 29, 2017	Departmental Review: Engineering, Water Production, Water Quality, Finance, Customer Service, and Information Services
September 15, 2017	Review of proposed 2018 Financial Plan by Finance and Administration
September 25, 2017	Review of proposed 2018 Financial Plan by CEO
October 12, 2017	Presentation of proposed 2018 Financial Plan to Board of Commissioners
November 16, 2017	Adoption of 2018 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 expenditures
- Maintaining a five-year capital plan with annual updates (see page 116)
- Maintaining debt service coverage, determined by dividing stabilized net revenue by annual debt service for the fiscal year, at a target of 190% but not less than 175% (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 81)
- Maintaining debt utilization below the 32% AWWA benchmark (see page 83)
- Maintaining the current ratio, determined by dividing current assets by current liabilities, above 1.50 (see below)



# **Basis of Accounting and Budgeting**

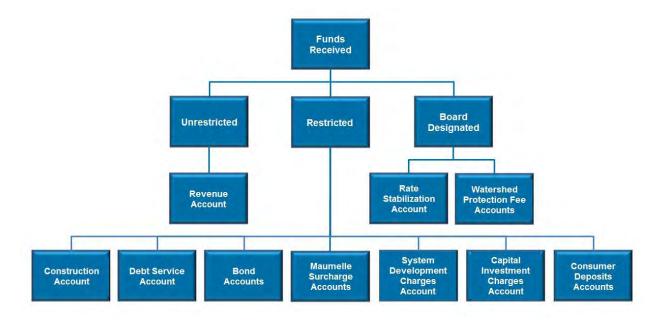
The Financial Plan for Central Arkansas Water, proposed by the CEO and adopted by the Board of Commissioners, is a reflection of the Utility's policies, goals, and priorities. It is a tool used to communicate to the public and staff regarding funds available and allocation decisions related to capital 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 governmental 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 accounts used by the Utility are: Revenue Account, Construction Account, Bond Account, Debt Service Reserve Account, Rate Stabilization Account, Watershed Protection Fees Account, System Development Charges Account, Capital Investment Charges Account, Maumelle Transition Surcharge Accounts, and Consumer Deposits Account.



**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, subordinated debt – bond account, subordinated debt – debt service reserve account, and rate stabilization account.

<u>Construction Account:</u> 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 a construction account. Upon completion of construction activities, CAW files a written request with the trustee. The trustee then pays construction invoices out of this account.

**Bond Account:** Abond 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 upcoming April 1 and October 1 debt service payments.

<u>Maumelle Surcharge Accounts:</u> All revenues from Maumelle Transition 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 listed in the CAW-MWM consolidation agreement.

<u>Debt Service Reserve Account:</u> A debt service reserve account is held by the trustee for each outstanding bond obligation. 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.

Rate Stabilization Account (RSA): 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 RSA.

**System Development Charges (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.

<u>Capital Investment Charges (CIC) Account:</u> 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 and distribution facilities and pumping and storage facilities related to site-specific facilities.

Watershed Protection Fees (WPF) Account: WPFs assessed on each monthly bill in the CAW and MWM service areas are deposited into these accounts. The funds collected from the CAW service area finance the Watershed Management Program designed to protect CAW water supply lakes. Funds collected from the MWM service area fund construction and preservation activities related to the MWM well field. Upon the connection of the MWM service area to the CAW system and closure of the MWM Plant and well field, WPFs charged to MWM customers will change to the CAW established rates, and those funds will go toward protection of CAW water supply lakes.

<u>Consumer Deposit Accounts:</u> This account holds customer deposits paid upon beginning water service with CAW. 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 expenditures are balanced with current revenues, carryover balances, and RSA transfers. Budgeted expenditures 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 is 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, and 2016 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 (FDIC) 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 FDIC 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 lives of the respective asset classes.

#### Rate Design and Water Service Pricing Policies

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

- 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 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:
  - (i) characteristics;
  - (ii) location;
  - (iii) demand patterns;
  - (iv) utility staffing requirements;
  - (v) anticipated repair and replacement costs;
  - (vi) impact on water quality and supply preservation; and
  - (vii) 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.
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#### **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 (EPA), and six national water and wastewater associations, to address the challenges faced by water sector utilities across the country. These challenges were identified as rising material costs, aging infrastructure, regulatory changes, adequacy of water supply, security and environmental hazards, Federal funding cuts, rate structure stress, and workforce complexities. The Ten Attributes of Effectively Managed Water Sector Utilities were developed to assist water utilities in their efforts to address these challenges. CAW adopted this framework for improvement in 2012. CAW's 2020 Strategic Plan continues to focus on areas stressed in years past such as transparency, infrastructure replacement, affordability, watershed protection, and employee development. In the spirit of continuous improvement, however, CAW's 2020 Strategic Plan adopts seven new Strategic Initiatives designed to help the utility focus its efforts through 2020 and beyond to build a better future for the utility, the community, and the utility's employees.

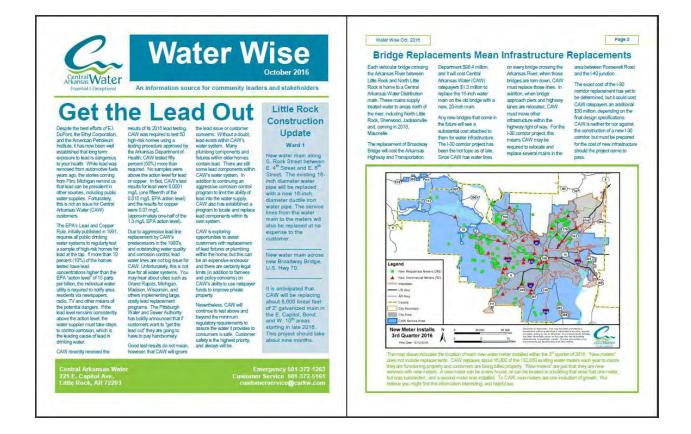


**Strategic Initiative 1:** Enhance Customer Confidence, Experience and Understanding (EUM: Customer Satisfaction; Stakeholder Understanding and Support)

GOAL	OBJECTIVE
Increase CAW's understanding of customer expectations and perceptions	<ol> <li>Identify all classes of customers (internal, external, wholesale, retail, builders, service providers, etc.) and tailor outreach</li> <li>Conduct broad-scale customer surveys every two years, commencing in 2018, to ensure CAW is informed about customer opinions, desires, and concerns, and enhance other means of obtaining customer feedback</li> </ol>
B. Improve the customer service experience	<ol> <li>Collect and analyze customer feedback, comments from community involvement, and customer surveys to prioritize future customer communications and service enhancements</li> <li>Improve customer experience by increasing ease of and options for services available online</li> <li>Develop a service scheduling program for field services that establishes timelines and protocols to provide CAW field services by end of 2018</li> <li>Adopt "first-call" resolution program as the primary measurement for customer service operations</li> </ol>
C. Effectively communicate CAW's mission, challenges, and opportunities to customers	<ol> <li>Educate customers and increase community awareness on issues, projects, services, and the value of tap water</li> <li>Maximize effective reach and efficiency of all available communication channels to better inform customers</li> </ol>

Strategic Initiative 2: Enhance Stakeholder Engagement

GOAL	OBJECTIVE
A. Capitalize on the high level of CAW Board engagement	<ol> <li>Focus CAW Board meetings on strategic planning and current strategic achievements</li> <li>Present and request CAW Board input on CAW policies and procedures</li> </ol>
B. Increase community/ stakeholder understanding and engagement	<ol> <li>Develop outreach program to actively engage a more diverse stakeholder base</li> <li>Establish effective Citizens Water Academy (or suitable alternative) and hold first class in 2017</li> </ol>
C. Be recognized as a responsible, innovative leader in the industry by the general public, our city partners, the state legislature, and local and national organizations	<ol> <li>Report CAW's performance related to "Partnership for Safe Water" water quality goals and regulatory compliance no less than annually</li> <li>Report CAW's accomplishments and challenges to key stakeholders at least quarterly</li> <li>Track, regularly report, and effectively engage in legislation relevant to CAW and the water industry</li> <li>Develop sustainable low-income customer assistance program valid under Arkansas law</li> <li>Advance industry knowledge and CAW's reputation by offering regional and statewide industry training; documenting and publishing process or other improvements that can be utilized by other water providers; and promoting employee engagement in the water industry through targeted participation in workshops, presentations, workgroups, and research efforts</li> </ol>



### **Strategic Initiative 3:** Optimize Infrastructure Performance and Increase Infrastructure Reliability

(EUM: Operational Optimization; Infrastructure Stability)

GOAL		OBJECTIVE
pe	aximize erformance of isting infrastructure	<ol> <li>Continue CAW's progress under "Partnership for Safe Water" distribution performance criteria by submitting the Distribution Baseline Report by the end of 2017 and the Distribution Self-Assessment by the end of 2019</li> <li>Participate in AWWA, AMWA, and other utility benchmark surveys to ensure and analyze comparative results to ensure CAW's infrastructure performance meets or exceeds that of industry peers</li> <li>Continue development and implementation of asset management tools, such as the valve inspection program, to minimize asset life-cycle costs</li> </ol>
reli	prove long-term liability of rastructure	<ol> <li>Complete renovations to the Ozark Treatment Plant that address identified operational deficiencies and aging components</li> <li>Complete renovation of Wilson Pump Station 1A to eliminate performance issues and replace aging electrical and mechanical equipment</li> <li>Replace a minimum of 25,000 feet of 2-inch galvanized pipe per year until average pipe break rate for galvanized pipe is under AWWA benchmark of 33 breaks per 100 miles of pipe</li> <li>Locate, test and replace as needed all "un-locatable" valves</li> <li>Develop schedule to review emergency response plans and risks from man-made or natural disasters; conduct regular disaster response exercises and modify ERPs as necessary</li> </ol>

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

	GOAL		OBJECTIVE			
A.	Evaluate industry best practices to identify cost effective innovations and solutions to provide operating excellence	2.	Develop utility-wide process engineering and review capabilities to analyze and, as appropriate, document and improve CAW's business processes  Expand number of cross-departmental teams to increase coordination of activities and reduce costs  Institute a project management program to ensure successful execution of both operational and capital projects			
В.	Enhance Information Technology capabilities	<ol> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> </ol>	Complete Maumelle Billing Conversion to CAW Customer Information System in early 2017 Complete IT Master Plan and begin implementation of cost-effective recommendations with 2018 budget process Develop and implement simplified online employee evaluation process, and online hiring/application process Identify emerging technology trends and adjust current technology based on changing business requirements Develop and implement document management solution Provide system users with training, on-going support, and resources for all business applications			

#### THE WAY FORWARD

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

GOAL	OBJECTIVE
A. Recruit, develop, appropriately rewa and retain a high-performing, innovative, valuedriven, informed, passionate, and diverse work force committed to achieving CAW's mission and strate goals	<ol> <li>Evaluate workforce programs to ensure CAW's ability to successfully recruit and retain talented, diverse employees</li> <li>Expand relationships with community and educational organizations to effectively broaden training and diversify recruitment efforts, and explore feasibility of local high schools and colleges offering industry specific certifications and/or job readiness programs</li> <li>Explore and establish effective alternative employment programs such as internships and externships</li> <li>Ensure total compensation package is competitive while balancing costs to the organization and adjusting as needed</li> </ol>
B. Measure and impremployee satisfactievels	
C. Expand employee skills and technica training to develop and prepare employees for futupositions, and increase span of employee certification and licensing	increase pool of leader talent (succession plan)  2. Improve knowledge and skill transfer to support workforce sustainability and develop knowledge management protocols for retaining and transferring essential, intellectual and tacit knowledge of employees
D. Assure safety and security of employ	Develop safety protocols, improve training, and redefine work methodologies to improve safety of all employees and reduce the number of accidents, lost time days, job reassignment due to accidents, etc.     Improve work conditions, surroundings, and performance protocols to reduce opportunities for employees to be placed in at risk locations and/or confronted with undesirable actors



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

	GOAL	OBJECTIVE
A.	Be fiscally strong and financially stable	<ol> <li>Maintain accurate 5-year forecast of rates, operating costs, capital expenditures, and cash reserves</li> <li>Maintain bond rating at current or improved levels; ensure CAW financial metrics meet or exceed guidelines set by CAW Board</li> <li>Continue to receive GFOA awards for the completeness and transparency of CAW's Annual Financial Plan and Comprehensive Annual Financial Report</li> <li>Explore capital alternatives and present results to CAW Board by the end of 2017</li> </ol>
В.	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	<ol> <li>If presented, pursue opportunities to expand CAW's customer base through cost-effective mergers with other utilities</li> <li>Continue to work with MAWA and existing wholesale customers to develop intermediate and long term service strategies for water customers in central Arkansas</li> <li>Actively explore and develop revenue opportunities that readily relate to CAW core competencies and are consistent with CAW mission and values</li> </ol>
C.	Enhance high stakeholder confidence in financial procedures, rates and budgets	<ol> <li>Re-examine current rate model, determine needs for 2020-2022, and present recommendations to CAW Board by September 2019</li> <li>Conduct comprehensive study of rates charged by regional (Arkansas) and national utilities of similar size; present findings to the CAW Board</li> <li>Explore alternative rate structures regarding allocation of operating costs and capital investment return</li> <li>Explore potential rate targets for low-income customers utilizing EPA affordability standards and present results to CAW Board</li> <li>Maintain clean financial audit opinion; have auditors review at least one sensitive business process each audit cycle, i.e. travel expense</li> </ol>





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

0041	OD IEOTIVE
GOAL	OBJECTIVE
A. Identify and secure additional sources of water supply	<ol> <li>Plan and secure additional water resources to augment or replace current supplies, including emergency water supply sources</li> <li>Finalize acceptable water storage contract for DeGray Lake</li> </ol>
B. Provide the highest water quality that exceeds all regulatory standards and preserves consumer confidence	<ol> <li>Continue CAW's progress under "Partnership for Safe Water" treatment performance criteria by submitting Treatment Baseline Report by the end of 2017, and Treatment Self-Assessment by the end of 2020</li> <li>Ensure high quality water throughout delivery system by developing proactive managing and monitoring practices from source to tap and implement appropriate strategies to respond to regulatory changes, and to assure customers that CAW water continues to be of the highest quality</li> <li>Develop internal capacity to model water quality in CAW's distribution system</li> <li>Meet ADH water treatment optimization criteria</li> </ol>
C. Effectively and efficiently manage source water quality	<ol> <li>Assess progress under the Lake Maumelle Watershed Management Plan and establish scope of operations for continued implementation of the goals and strategies set forth in the plan through the adaptive management process</li> <li>Establish schedules to study activities set forth in the Recreation Management Plan and implement recommendations set forth in other recent watershed related studies</li> <li>Develop short and long term plans for Watershed Center of Excellence</li> <li>Implement vulnerability assessment recommendations to eliminate or reduce hazards to water quality within the watersheds of the source lakes</li> <li>Proactively monitor water quality and environmental parameters within the source lakes, rivers and tributaries; collect and analyze watershed specific data to access the impacts of natural and man-made influences within the source lakes and watersheds</li> <li>Develop staff to support the Pulaski County SET program</li> <li>Improve implementation of forest and land management initiatives</li> </ol>



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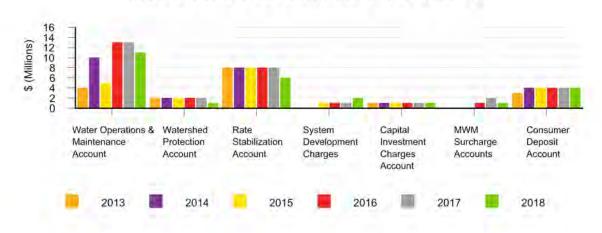


# SOURCES & USES OF FUNDS

#### SOURCES AND USES OF FUNDS – OVERVIEW

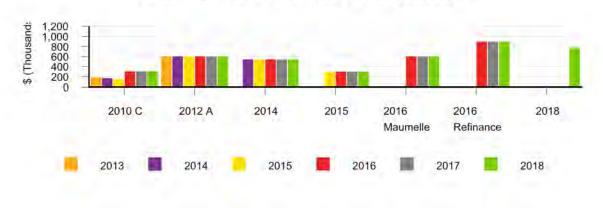
We anticipate a total of \$47,204,683 in both restricted and unrestricted funds to carry forward at December 31, 2017. Unrestricted water operations and maintenance funds amount to \$13,107,481 in addition to \$1,553,402 watershed protection funds, and \$8,159,866 rate stabilization funds. The restricted system development charges account amounts to \$1,304,972; the capital investment charges account amounts to \$1,210,688; the MWM surcharge accounts amount to \$1,679,435; and the restricted consumer deposits account amounts to \$4,343,032.

#### Restricted and Unrestricted Funds



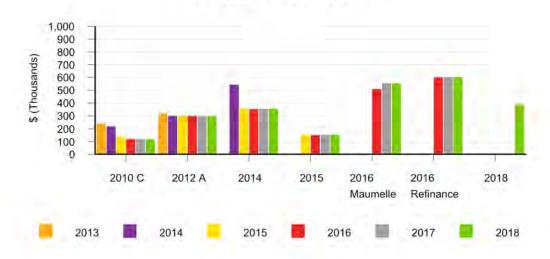
The bond trust indentures require CAW to maintain certain reserves during the life of the bond issues. Debt service reserve accounts cover the principal and interest for the final year of each bond issue. The debt service reserve accounts amount to \$309,291 for the 2010C Bond Issue; \$602,160 for the 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; and \$893,000 for the 2016 Refinance Bond Issue.

#### **Debt Service Reserve Accounts**



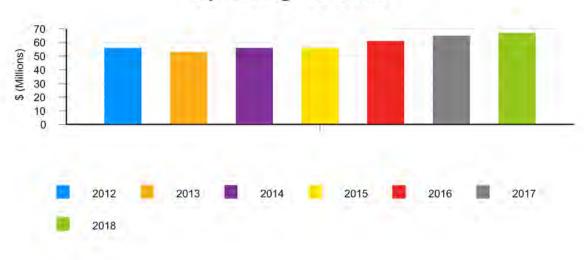
A bond account for each bond issue accumulates sufficient funds annually to pay the principal and interest on each bond issue. The accounts amount to \$116,927 for the 2010C Bond Issue; \$295,202 for the 2012A Bond Issue; \$353,176 for the 2014 Bond Issue; \$151,061 for the 2015 Bond Issue; \$553,322 for the 2016 Maumelle Bond Issue; and \$600,832 for the 2016 Refinance Bond Issue. The working capital reserve represents three months' worth of operating expenses, and for 2017, that amount is \$5,182,993.

#### **Bond Accounts**

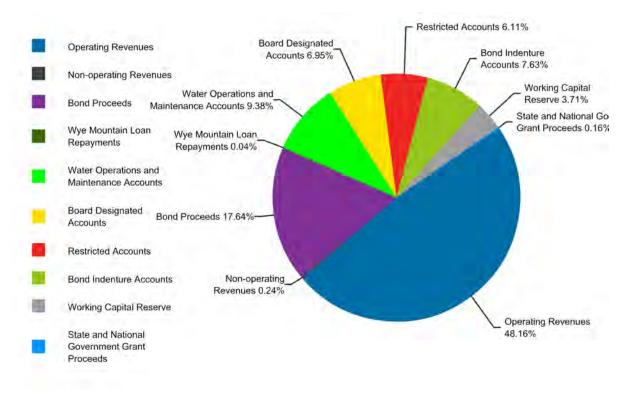


The carry-forward balances, along with anticipated operating revenues of \$67,314,223, non-operating revenues of \$338,600, Arkansas Department of Natural Resources (ANRC) bond proceeds of \$24,651,925, Wye Mountain loan repayments of \$51,000, and grant proceeds of \$225,000 will fund normal operations and the capital improvement plan.

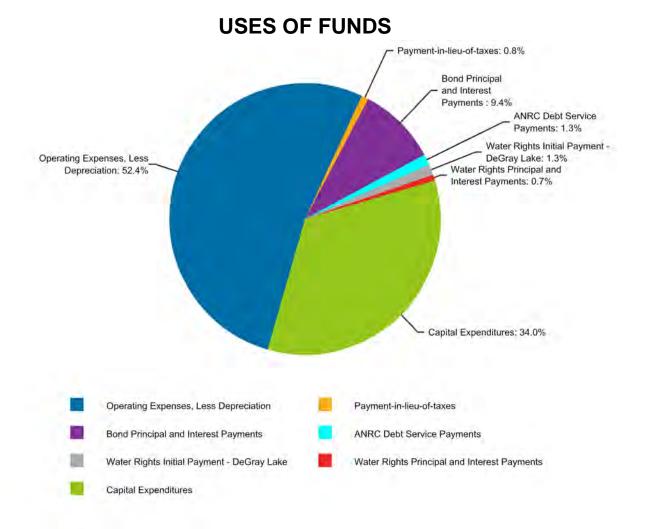
#### Operating Revenues



#### **SOURCES OF FUNDS**



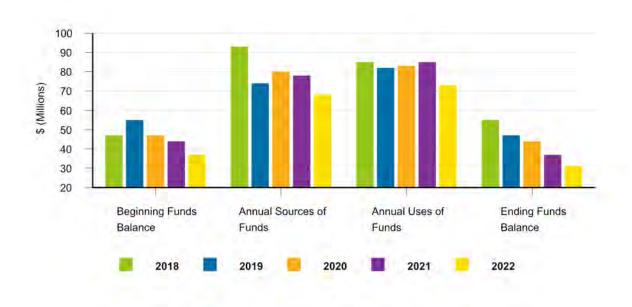
Utility staff anticipates 48.2% of total sources of funds from operating revenues. The remaining sources of funds are made up of various sources. The sources of funds are depicted above.



Operating expenses account for 52.2% of total uses of funds while capital expenditures account for 33.8% and bond principal and interest payments add up to 9.4%. 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, \$54,564,352 will remain in both restricted and unrestricted funds at December 31, 2018.

# 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 2015 to develop a more current rate model. There was no rate increase in 2016. Rates for 2017-2019 were approved by the CAW Board of Commissioners in the 4th quarter of 2015, which includes an 8.9% retail rate increase and a 10.0% wholesale rate increase in 2018. There is no retail rate increase in 2019. There is an approximately 5% wholesale rate increase in 2019.

#### STATEMENT OF SOURCES AND USES OF FUNDS

#### Sources of Funds:

Carry Forward, as of December 31, 2017		
Unrestricted Accounts	Ф 40 40 <del>7</del> 404	
Water Operations and Maintenance Accounts	\$ 13,107,481	
Board Designated Accounts	4 550 400	
Watershed Protection Fees Account	1,553,402	
Rate Stabilization Account	8,159,866	
Restricted Accounts	4 004 070	
System Development Charges Account	1,304,972	
Capital Investment Charges Account	1,210,688	
MWM Surcharges	1,679,435	
Consumer Deposits Account	4,343,032	
Bond Indenture Accounts	000 004	
Debt Service Reserve Account – 2010C	309,291	
Debt Service Reserve Account – 2012A	602,160	
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	
Construction Fund - 2016 Maumelle	5,343,355	
Bond Account – Principal and Interest Reserve – 2010C	116,927	
Bond Account – Principal and Interest Reserve – 2012A	295,202	
Bond Account – Principal and Interest Reserve – 2014	353,176	
Bond Account – Principal and Interest Reserve – 2015	151,061	
Bond Account – Principal and Interest Reserve – 2016 Maumelle	553,322	
Bond Account – Principal and Interest Reserve – 2016 Refinance	600,832	
Working Capital Reserve	5,182,993	
Total Carry Forward, as of December 31, 2017		47,204,683
2018 Sources of Funds		
Operating Revenues	67,314,223	
Non-operating Revenues	338,600	
Bond Proceeds	24,651,925	
Wye Mountain Loan Repayments	51,000	
State and National Government Grant Proceeds	225,000	
Total 2018 Sources of Funds	_	92,580,748
Total Sources of Funds	<u>-</u>	139,785,431

#### 2018 Uses of Funds:

Operating and Non-operating Expenditures			
Operating Expenses, Less Depreciation	44,446,401		
Payment-in-lieu-of-taxes	709,056		
Bond Principal and Interest Payments	8,451,013		
ANRC Debt Service Payments	1,110,770		
Water Rights Initial Payment - DeGray Lake	1,078,000		
Water Rights Principal and Interest Payments	586,539		
Capital Expenditures	28,839,300		
Total Uses of Funds		\$	85,221,079
Funds Available at December 31, 2018			
Unrestricted Accounts			
Water Operations and Maintenance Accounts	\$ 10,791,820		
Board Designated Accounts			
Watershed Protection Fees Account	1,426,964		
Rate Stabilization Account	6,244,819		
Restricted Accounts			
System Development Charges Account	1,615,558		
Capital Investment Charges Account	948,293		
MWM Surcharge Accounts	1,349,107		
Consumer Deposits Account	4,388,248		
Bond Indenture Accounts			
Debt Service Reserve Account – 2010C	309,291		
Debt Service Reserve Account – 2012A	602,160		
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 – 2018	770,925		
Construction Fund - 2016 Maumelle	2,496,874		
Construction Fund - 2018	13,257,667		
Bond Account – Principal and Interest Reserve – 2010C	117,140		
Bond Account – Principal and Interest Reserve – 2012A	295,653		
Bond Account – Principal and Interest Reserve – 2014	353,631		
Bond Account – Principal and Interest Reserve – 2015	151,294		
Bond Account – Principal and Interest Reserve – 2016 Maumelle	553,899		
Bond Account – Principal and Interest Reserve – 2016 Refinance	601,579		
Bond Account – Principal and Interest Reserve – 2018	384,832		
Working Capital Reserve	5,567,111	•	
Carry Forward, as of December 31, 2018		\$	54,564,352

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

	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Beginning Funds Balance	47,204,683	54,564,352	47,114,997	43,635,314	36,929,624
Operating Revenues	67,314,223	66,946,772	66,673,451	66,404,681	66,140,411
Non-operating Revenues	338,600	272,822	284,822	275,801	258,727
Bond / Loan Proceeds	24,651,925	6,886,000	13,000,000	11,300,000	1,300,000
Wye Mountain Loan Repayments	51,000	51,000	51,000	51,000	51,000
Grant Proceeds	225,000	<i>31</i> ,000	<i>31</i> ,000	<i>31</i> ,000	
Annual Sources of Funds	92,580,748	74,156,594	80,009,273	78,031,482	67,750,138
Operating Expenses	44,446,401	45,086,559	46 076 200	17 005 016	19 115 522
Operating Expenses			46,076,290	47,085,816	48,115,532
Payment-in-lieu-of-taxes	709,056	723,237	737,702	752,456	767,505
Bond Principal and Interest ANRC Debt Service	7,991,013	8,750,044	8,759,856	8,734,856	8,733,519
	1,110,770	1,110,770	1,110,770	1,431,506	1,431,506
Additional Principal Payments	460,000	460,000	460,000	460,000	460,000
Water Rights - Degray Lake Initial Payment	1,078,000	_	_	_	
Water Rights Principal and Interest	586,539	586,539	586,538	586,538	586,539
Conservation Easement Loan Payment	_	170,000	245,000	320,000	395,000
Capital Expenditures	28,839,300	24,718,800	25,512,800	25,366,000	12,769,000
Annual Uses of Funds	85,221,079	81,605,949	83,488,956	84,737,172	73,258,601
Increase (Decrease) in Funds Balance	7,359,669	(7,449,355)	(3,479,683)	(6,705,690)	(5,508,463)
Ending Funds Balance	54,564,352	47,114,997	43,635,314	36,929,624	31,421,161
Breakdown of Funds Balance					
Unrestricted	10,791,820	10,315,541	7,640,695	2,984,137	1,081,570
Board Designated	10,771,020	10,313,311	7,010,075	2,501,137	1,001,570
Watershed Protection	1,426,964	1,354,784	1,210,177	995,406	804,110
Rate Stabilization	6,244,819	7,276,043	7,294,233	6,937,469	2,504,353
Restricted	0,2,019	7,270,010	,,=> .,===	0,507,105	2,00.,000
System Development Charges	1,615,558	1,920,636	2,223,180	2,526,481	2,830,539
Capital Investment Charges	948,293	1,078,034	1,206,042	1,334,369	1,463,018
MWM Surcharges	1,349,107	1,908,590	2,471,626	1,036,070	1,594,174
Customer Deposits	4,388,248	4,410,189	4,421,214	4,432,268	4,443,348
Bond Reserves	22,232,432	13,343,594	11,676,953	11,206,146	11,234,161
Working Capital	5,567,111	5,647,783	5,771,588	5,897,869	6,026,676
Ending Funds Balance	54,564,352	47,255,194	43,915,708	37,350,215	31,981,949

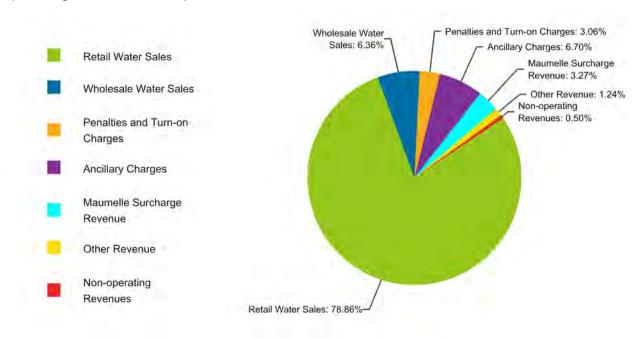


# REVENUES, EXPENSES & NET POSITION

#### REVENUES, EXPENSES, AND NET POSITION - OVERVIEW

#### REVENUES – OVERVIEW

CAW is planning to receive 78.9% of its fiscal year revenue from metered sales (retail and wholesale water sales). The remaining revenues of 21.1% are penalties and turn-on charges, ancillary charges, Maumelle Transition 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. During the MWM merger transition period, all customers within the former MWM service area will be charged specific retail water rates established in resolution 2015-15. The transition period will end upon completion of a 30-inch transmission main which will connect the former MWM system to the CAW system and allow for the closure of the MWM Plant and well field. Former MWM customers will transition to CAW's outside-city rates at the end of the transition period.

#### **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 11.4% of total metered consumption and 6.4% of total operating revenues in the 2018 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. The monthly fee is \$0.45 cents for households with a 5/8" meter. Customers of the MWM service area have a \$0.75 WPF added to all meters on a monthly basis. This fee is restricted to finance protection and further development of the Maumelle well field which currently supplies raw water to the Maumelle system. MWM customers will transition to the CAW WPF fee structure upon the conclusion of the transition period.

Billing fees are assessed to CAW's 17 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 combined short-term, 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.

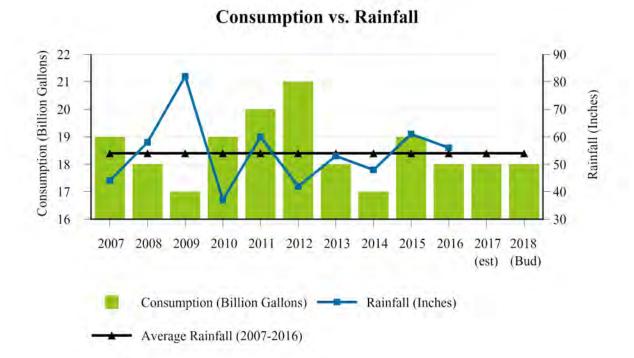
#### Other Revenue

Other Revenue consists of income generated from recycling, engineering fees, Grande Maumelle Sailing Club rent, Jolly Roger's Marina 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 experience these conditions. Record rainfall in 2009 resulted in operating revenues \$6.2 million less than budget. Rainfall

combined with unseasonably cool temperatures in 2014 resulted in operating revenues \$4.3 million less than budget.

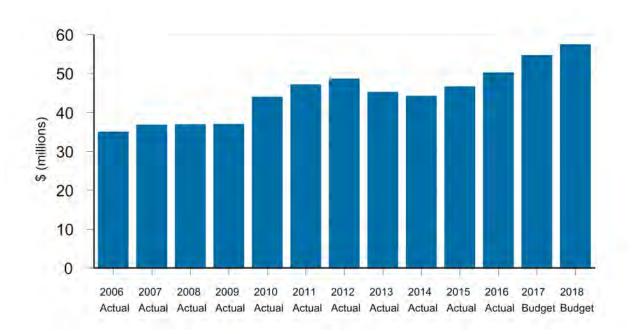


Developing accurate demand forecasts is one of the biggest challenges in creating long-term financial forecasts. There are many factors that influence customer demand projections. Climate and weather conditions, economic drivers, and conservation are a few of the factors that must be considered. Different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

Retail consumption is projected to decline 1.0% in 2018 and 2019. Wholesale consumption was adjusted down 9.3% in 2017 and is projected to remain flat through 2019.

#### **Metered Water Sales by Year**



The above graph presents total actual Metered Water Sales for the years 2006 through 2016. Budgeted numbers are shown for the years 2017 and 2018. Even though CAW forecasts further reduction in consumption, the increase in 2018 reflects the retail and wholesale rate increases which go into effect January 1, 2018.

#### **Water Rates and Fees**

The CAW Board of Commissioners approved a rate schedule for 2017-2019 on December 10, 2015 with resolution 2015-20. Approved rates and fees for 2018 are presented on the following pages.

#### 2018 rates are as follows:

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

	RATES			
METER	EFFECTIVE			
SIZE	JANUA	ARY 1, 2018		
(diameter)	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)

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

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

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

#### Monthly Watershed Protection Fee

METER SIZE (diameter)	EFFECTIVE MAY 1, 2009
5/8"	\$0.45
3/4"	0.45
1"	0.68
1 1/2"	1.13
2"	2.25
3"	3.60
4"	6.75
6"	11.25
8"	22.50
10"	36.00

#### Private Fire Service Charges

		R	ATES	
	,	EFFECTIVE JANUARY 1, 2018		
	IN	ISIDE	OU	ΓSIDE
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,		92.20		133.30
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 2018 rates increase to \$1.57 for On Peak consumption and \$1.45 for Off Peak consumption. The wholesale rates are presented in the table below.

#### Wholesale Minimum Monthly Charge

	RATES
METER	EFFECTIVE
SIZE	JANUARY 1, 2018
(diameter)	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

	RATES
TIME WATER IS	EFFECTIVE
TAKEN	JANUARY 1, 2018
	\$ PER 100 CF
ON PEAK	
Customers taking	
any water from:	\$1.57
4:01 a.m. to 8:59 a.m.	ψ1.57
and/or	
5:01 p.m. to 9:59 p.m.	
OFF PEAK	
Customers taking	
all water from:	1.45
10 p.m. to 4 a.m.	1. <del>4</del> 0
and/or	
9 a.m. to 5 p.m.	

#### Raw Water Additional Monthly Volumetric Charge

	RATES
	EFFECTIVE
	JANUARY 1, 2018
	\$ PER 100 CF
Raw Water Customer	\$0.62

#### 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					METER		CONN**
SIZE	AREA	AREA	AREA	AREA	OFF	CONN**	OFF
(diameter)	\$50*	\$100*	\$200*	\$400*	MAIN	SIZE	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

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

#### **Connection Fee**

METER				
SIZE	2-LANE ROAD	3-LANE ROAD	4-LANE ROAD	STATE
(diameter)	20 – 28'	29 – 36'	37 – 48'	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	-	-	-

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

#### **Maumelle Transition Period**

Resolution 2015-15 establishes a rate schedule covering the former MWM service area during the Transition Period. Upon completion of infrastructure work required to connect the MWM service area with CAW's existing transmission system, these rates will be eliminated, and customers in the MWM service area will be charged the established CAW outside-city rates that are in effect at that time. Management anticipates completion of the required infrastructure work and elimination of the MWM Transition rates in early 2018. MWM Transition rates are listed below.

Minimum Monthly Charge (includes the first 1,000 gallons of water usage)

	MINIMUM MONTHLY CHARGE
METER SIZE (diameter)	Effective upon Consolidation
5/8"	\$9.56
3/4"	9.56
1"	42.70
1 1/2"	85.42
2"	149.50
3"	331.02
4"	565.92
6"	1,120.52
8"	1,893.68

	SPRINKLER ACCOUNT MINIMUM MONTHLY CHARGE
METER	Effective upon Consolidation
SIZE	
(diameter)	
5/8"	\$11.07
3/4"	11.07
1"	49.57
1 1/2"	99.14
2"	173.49
3"	331.02
4"	565.92
6"	1,120.52
8"	1,893.68

#### Additional Monthly Volumetric Charge (\$ per 1,000 gallons)

	RATES				
CUSTOMER CLASS	\$ PER 1,000	\$ PER 1,000	\$ PER 1,000	\$ PER 1,000	
	gallons	gallons	gallons	gallons	
	(1,001 to 10,000	(10,001 to	(20,001 to	(30,001 +	
	gallons)	20,000 gallons)	30,000 gallons)	gallons)	
NON- SPRINKLER	\$ 3.68	\$ 3.68	\$ 3.68	\$ 3.68	
SPRINKLER	4.26	4.69	5.15	5.41	

#### Watershed Protection Fee

METER SIZE	Per Month Per Meter	
(diameter)		
All Meter Sizes	\$0.75	

During the Transition Period, persons over the age of 65 years of age may receive a discount of \$3.00 per month on their monthly bill upon presentment of proof of age to the Utility. Upon completion of the Transition Period, this discount will be discontinued.

#### Maumelle Transition Surcharges

The 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. Projected Transition Expenses associated with the Transition (short-term) Surcharge will be fully paid as of December 31, 2017. This surcharge will be 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 our 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 0.85 - 1.00%.

#### **EXPENSES - OVERVIEW**

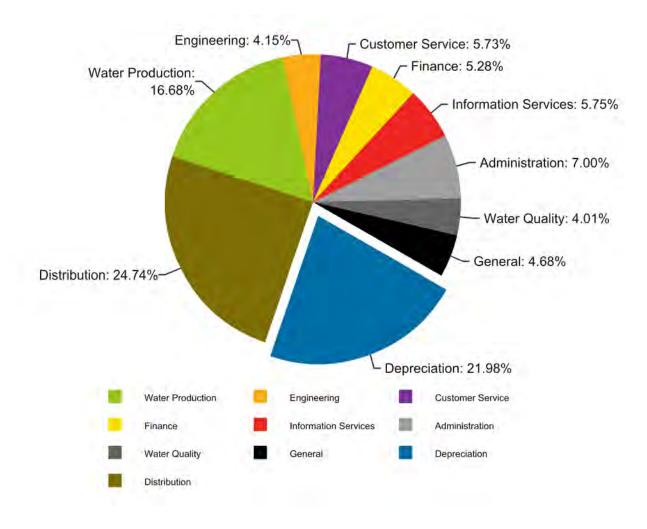
#### **Operating Expenses**

Depreciation is a major component of operating expenses and amounts to \$12.5 million or 22.0% of total operating expenses for 2018. Projections indicate that total depreciation in 2017 will exceed budgeted amounts by 2.0%. During the past several years, CAW has funded and completed a significant number of construction projects with the proceeds from bond issues and Little Rock and North Little Rock reserve trust funds. As projects are completed from all of the funding sources, the costs are capitalized and depreciated.

Operating expenses include 335 budgeted positions for 2018, an increase of five positions from the number of 2017 positions. As of September 1, 2017, 307 positions were staffed, including nine part-time positions. This reflects an increase of eight staffed positions when compared to 299 staffed positions as of September 1, 2016. This increase is driven by the MWM merger, partially offset by currently vacant positions. Traditionally, the Utility's turnover rate is very low (10.6% for 2016 and projected 7.1% for 2017), 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 \$841,000. Health insurance premiums will increase by 5% in the upcoming year. The estimated national average increase for health insurance ranges from 5 - 8%. Individual department directors held operating expenses to a 1.7% overall increase (excluding depreciation, MWM transition cost, wages, and benefits) from the 2017 budget. The Arkansas Public Employees Retirement System (APERS) mandatory employer contribution rate will increase by 0.57% to 15.32% for the fiscal year beginning July 1, 2018.

#### **OPERATING EXPENSES**

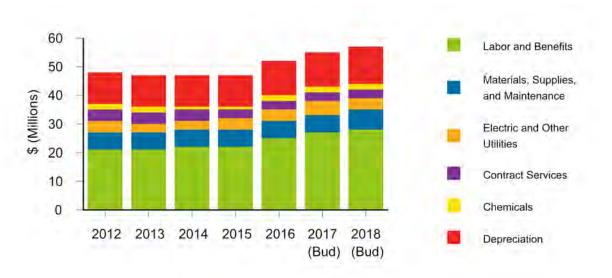
#### By DEPARTMENT



Budgeted 2018 Operating Expenses by Department are depicted above.

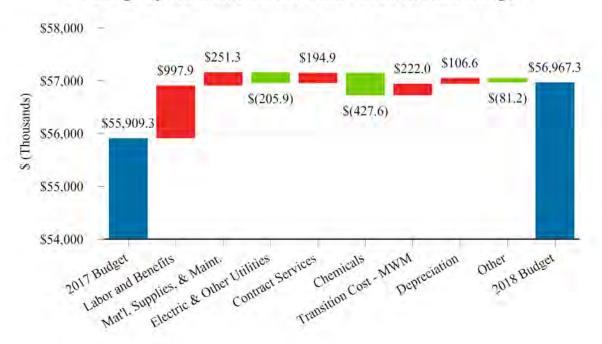
The following graph presents total actual Operating Expenses by Natural Classification for the years 2012 through 2016. Budget numbers are shown for the years 2017 and 2018.

#### **Operating Expenses by Natural Classification**



The following graph presents budgeted Operating Expenses by Natural Classification for 2017 and 2018 with specific Natural Classification areas driving changes in budgeted expenses between the two years.

#### Change by Natural Classification - 2017 to 2018 Budget



Water Production's operating budget is decreasing by \$468,900 or 4.7% compared to 2017 budget. The number of employee positions increases by one to 37 budgeted employees. Variable costs such as chemical treatment, wastewater disposal, and power are driven by increases or decreases in water consumption. Water treatment chemical costs are budgeted to decrease by \$427,600 or 21.0% in 2018. The majority of this decrease is the decommissioning of the MWM water treatment plant. The wastewater cost for disposal of treatment plant sludge is budgeted to decrease \$75,000 or 8.6% based on Little Rock Water Reclamation Authority's rates and disposal amounts. Budgeted power consumption (kWh) will decrease slightly for 2018 with a decrease of \$20,000 or 1.1%.

Water Quality is increasing its budget for 2018 by \$71,600 or 3.2%. The 2018 budget increase is reflected in higher labor and benefit costs and offset by a reduction in laboratory supplies. The total number of budgeted employees remains constant at 13 for 2018. To ensure high-quality raw water for the Utility, the Water Quality Department 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. The department 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 budget includes a director and administrative, watershed, and laboratory staff.

Distribution, the largest department, is showing a budget decrease of \$108,000 or 0.8% from 2017 budgeted amounts. The number of budgeted employees decreases by five to 147 for 2018. This decrease is due to the elimination of two positions and the transfer of three employees to different departments. As of the budget date, the department maintained a total of 141 employees and 11 vacancies which are projected to be filled before the end of 2017. Decreases for the 2018 budget year primarily consist of \$161,900 in wage and benefit costs and \$62,300 in electric and other utilities, partially offset by slight increases in fuel costs, material costs, and contractual services compared to 2017. Distribution forecasts that approximately \$1.61 million in payroll costs will be capitalized in 2018. 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.

The Engineering Department is projecting a \$422,800 or 21.8% increase from the previous year's budget. This increase is primarily due to the decommissioning of the MWM water treatment plant. In 2018, the amount budgeted for capitalized labor is \$412,000, which will be reflected as capital charges rather than operating expense. The total number of budgeted employees in the department remains constant at 24 employees with no vacancies as of September 1, 2017. Engineering is responsible for planning, design, and construction inspection of improvements within the CAW system.

The Customer Service Department reflects an increase in the 2018 budget of \$274,900 or 9.2% compared to the 2017 budget. The primary cause for the increase is labor and benefit increases related to the addition of three positions for the implementation phase

of the new CIS. The total number of employees in the Customer Service Department increases to 53 for 2018. The Customer Service Department provides customers with information, resolves problems, and reads water meters.

The Finance Department is projecting a \$84,200 decrease from the 2017 budget. This decrease is primarily due to the movement of the CFO to Administration. The total number of employees budgeted for the Finance Department remains constant at 24, with three vacant positions at budget time. The Finance Department is responsible for accounting, finance, budgeting, purchasing, and billing.

The Information Services Department budget for 2018 reflects an increase of \$42,500 or 1.3%. The total increase is associated with increased data service costs. The total number of departmental employees increases by one to 18, with one vacancy at budget time. This increase is due to the implementation of the new CIS. The IS Department oversees information services, computer operations, and telecommunications.

The Administration Department is projecting a \$701,800 or 21.3% budget increase from 2017. Wages and benefits make up the largest portion of the increase with the transfer of the CFO from Finance and the addition of a Special Projects Manager to manage the new CIS implementation. Increases to legal fees, safety materials, and special projects also contribute to the department's increase. The number of staff budgeted for the Administration Department includes 19 positions. Administration includes Executive Staff, Human Resources, Environmental Health and Safety (EHS), Public Affairs and Communications, Legal, and Commissioners' expenses. Human Resources 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. Other Administration costs include professional services.

The General category budget reflects a \$99,100 or 3.9% increase from 2017. The projected increase in other post-employment benefits (OPEB) is the main driver of this increase. The General category of the budget includes expenditures for OPEB, workers compensation, and future water resources. Other costs that contribute to this category are business insurance, uncollectible accounts, utilities, and building maintenance items for the James T. Harvey (JTH) Administration building.

Depreciation reflects an increase of \$106,600 or 0.9%. 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 75 years for distribution mains to five years for electronics. 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 corporate limits of each city, had such real property and improvements been subject to ad valorem taxation.

Interest expense is budgeted net of capitalized interest. Capitalized interest is interest incurred during the process of acquiring or constructing a capital asset or interest that could have been avoided by paying down debt rather than cash-financing capital projects. Capitalized interest is included as part of the cost of the associated asset. The 2018 Financial Plan includes approximately \$288,800 in capitalized interest.

#### **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 2018 budget will result in a Net Position increase of approximately \$9,123,000, or approximately \$7,123,000 before contributions.

## STATEMENT OF REVENUES AND EXPENSES (BY NATURAL CLASSIFICATION – PERCENTAGE CHANGES)

					CHANGE FROM	CHANGE FROM
	2016	2017	2017	2018	2017	2017
	ACTUAL	PROJECTED	BUDGET	BUDGET	PROJECTED	BUDGET
Operating Revenues						
	\$ 47,310,430	\$ 47,867,237	\$ 50,684,156	\$ 53,352,775	11.46 %	5.27 %
Wholesale Water Sales	3,781,831	4,109,191	4,067,000	4,302,000	4.69 %	5.78 %
Penalties and Turn-on Charges	1,998,808	2,197,113	2,058,000	2,073,000	(5.65)%	0.73 %
Ancillary Charges	4,375,677	4,457,340	4,303,765	4,535,298	1.75 %	5.38 %
Maumelle Surcharge Revenue	2,223,483	2,668,218	2,653,725	2,210,750	(17.15)%	(16.69)%
Other Revenue	1,000,298	857,604	772,400	840,400	(2.01)%	8.80 %
Total Operating Revenues	60,690,527	62,156,703	64,539,046	67,314,223	8.30 %	4.30 %
Operating Expenses						
Labor and Benefits	25,000,238	25,491,584	26,745,172	27,743,077	8.83 %	3.73 %
Materials, Supplies, and Maintenance	6,144,976	6,285,196	6,390,750	6,642,073	5.68 %	3.93 %
Electric and Other Utilities	4,466,889	4,289,922	4,632,860	4,426,986	3.20 %	(4.44)%
Contract Services	2,906,145	3,104,865	3,212,853	3,407,712	9.75 %	6.06 %
Chemicals	1,863,336	1,739,195	2,040,169	1,612,553	(7.28)%	(20.96)%
Transition Cost - MWM	154,059	39,743	50,000	272,000	584.40 %	444.00 %
Depreciation	12,303,048	12,665,956	12,414,266	12,520,835	(1.15)%	0.86 %
Other	277,159	382,611	423,192	342,000	(10.61)%	(19.19)%
Total Operating Expenses	53,115,850	53,999,072	55,909,262	56,967,236	5.50 %	1.89 %
Operating Income (Loss)	7,574,677	8,157,631	8,629,784	10,346,987	26.84 %	19.90 %
Non-operating Revenue (Expense)						
Payment-in-lieu-of-taxes	(676,408)	(706,716)	(706,716)	(709,056)	0.33 %	0.33 %
Investment Income	237,856	304,723	190,055	338,600	11.12 %	78.16 %
Gain/Loss on Sale of Assets	76,664	49,475	_	_	(100.00)%	- %
Bond Interest Expense	(1,953,502)	(1,407,148)	(1,417,714)	(2,061,499)	46.50 %	45.41 %
Bond Interest Expense - Maumelle	(1,126,540)	(687,450)	(687,452)	(677,677)	(1.42)%	(1.42)%
Interest Expense - Other	(21,978)	(13,953)	(17,453)	(114,811)	722.84 %	557.83 %
Total Non-operating Revenue (Expense)	(3,463,908)	(2,461,069)	(2,639,280)	(3,224,443)	31.02 %	22.17 %
Net Income (Loss) Before Contributions	4,110,769	5,696,562	5,990,504	7,122,544	25.03 %	18.90 %
Contributions						
Capital Contributions from Grantors	26,112	_	_	_	— %	<b>-</b> %
Contributions-in-aid of Construction	2,148,229	2,688,740	3,800,000	2,000,000	(25.62)%	(47.37)%
Total Contributions	2,174,341	2,688,740	3,800,000	2,000,000	(25.62)%	(47.37)%
Change in Net Position	\$ 6,285,110	\$ 8,385,302	\$ 9,790,504	\$ 9,122,544	8.79 %	(6.82)%
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## STATEMENT OF REVENUES AND EXPENSES (BY DEPARTMENT – PERCENTAGE CHANGES)

					CHANGE FROM	CHANGE FROM
	2016	2017	2017	2018	2017	2017
	ACTUAL	PROJECTED	BUDGET	BUDGET	PROJECTED	BUDGET
Operating Revenues						
Retail Water Sales	\$ 47,310,430		\$ 50,684,156		11.46 %	5.27 %
Wholesale Water Sales	3,781,831	4,109,191	4,067,000	4,302,000	4.69 %	5.78 %
Penalties and Turn-on Charges	1,998,808	2,197,113	2,058,000	2,073,000	(5.65)%	0.73 %
Ancillary Charges	4,375,677	4,457,340	4,303,765	4,535,298	1.75 %	5.38 %
Maumelle Surcharge Revenue	2,223,483	2,668,218	2,653,725	2,210,750	(17.15)%	(16.69)%
Other Revenue	1,000,298	857,604	772,400	840,400	(2.01)%	8.80 %
Total Operating Revenues	60,690,527	62,156,703	64,539,046	67,314,223	8.30 %	4.30 %
Operating Expenses						
Water Production	9,219,260	9,157,926	9,969,893	9,500,999	3.75 %	(4.70)%
Distribution	13,113,496	13,288,754	14,203,777	14,095,526	6.07 %	(0.76)%
Engineering	1,699,858	1,838,358	1,941,853	2,364,701	28.63 %	21.78 %
Customer Service	2,779,489	2,889,129	2,989,871	3,264,765	13.00 %	9.19 %
Finance	2,993,189	2,941,903	3,089,889	3,005,711	2.17 %	(2.72)%
Information Services	3,085,242	3,162,067	3,232,265	3,274,796	3.57 %	1.32 %
Administration	2,912,295	3,223,270	3,288,694	3,990,482	23.80 %	21.34 %
Water Quality	2,250,816	2,058,199	2,212,453	2,284,030	10.97 %	3.24 %
General	2,759,157	2,773,510	2,566,301	2,665,391	(3.90)%	3.86 %
Depreciation	12,303,048	12,665,956	12,414,266	12,520,835	(1.15)%	0.86 %
Total Operating Expenses	53,115,850	53,999,072	55,909,262	56,967,236	5.50 %	1.89 %
Operating Income (Loss)	7,574,677	8,157,631	8,629,784	10,346,987	26.84 %	19.90 %
Non-operating Revenue (Expense)						
Payment-in-lieu-of-taxes	(676,408)	(706,716)	(706,716)	(709,056)	0.33 %	0.33 %
Investment Income	237,856	304,723	190,055	338,600	11.12 %	78.16 %
Gain/Loss on Sale of Assets	76,664	49,475	_	_	(100.00)%	— %
Bond Interest Expense	(1,953,502)	(1,407,148)	(1,417,714)	(2,061,499)	46.50 %	45.41 %
Bond Interest Expense - Maumelle	(1,126,540)	(687,450)	(687,452)	(677,677)	(1.42)%	(1.42)%
Interest Expense-Other	(21,978)			(114,811)		557.83 %
Total Non-operating Revenue (Expense)	(3,463,908)	(2,461,069)	(2,639,280)	(3,224,443)	31.02 %	22.17 %
Net Income (Loss) Before Contributions	4,110,769	5,696,562	5,990,504	7,122,544	25.03 %	18.90 %
Contributions						
Capital Contributions from Grantors	26,112	_	_	_	— %	— %
Contributions-in-aid of Construction	2,148,229	2,688,740	3,800,000	2,000,000	(25.62)%	(47.37)%
Total Contributions	2,174,341	2,688,740	3,800,000	2,000,000	(25.62)%	(47.37)%
Change in Net Position	\$ 6,285,110	\$ 8,385,302	\$ 9,790,504	\$ 9,122,544	8.79 %	(6.82)%

#### **STATEMENT OF REVENUES**

Retail Water Sales - Little Rock           Residential         \$11,493,77         \$31,096         \$1,218,285           Commercial         7,821,927         310,068         \$1,28,585           Large Volume         1,673,40         1,874,55         1,805,50           Sprinkler         9,734,83         256,08         9,917,15           Rew Water         223,08         55,000         75,000           Private Fiservice         497,13         55,808         55,100           Total Little Rock         31,249,21         3,504,22         3,500,00           Cestil Water Sales - North Little Rock         4,194,42         4,842,975         9,037,50           Commercial         2,545,33         4,945,82         55,033           Sprinkler         1,194,42         4,842,975         9,037,93           Sprinkler         1,414,70         6,90,43         3,459,682           Sprinkler         9,32,3         1,80,63         18,00,63           Total North Little Rock         8,27,47         6,99,43         18,05,63           Commercial         1,87,63         1,879,63         1,879,63           Commercial         1,87,63         1,879,63         1,879,63           Commercial         1,		INSIDE	. (	OUTSIDE	TOTAL
Residential         \$1,409,477         \$1,719,20         \$1,211,600           Commercial         7,821,127         310,668         \$1,823,605           Large Volume         9,734,853         23,689         9,971,751           Raw Water         23,098         55,000         78,000           Private Fire Service         49,735         35,800         55,000           Total Little Rock         41,943         4,842,975         9,037,300           Residential         41,944,92         4,842,975         9,037,300           Commercial         41,944,92         4,842,975         5,580,303           Sprinkler         41,944,92         4,842,975         5,903,730           Commercial         14,104,92         4,842,975         5,903,730           Sprinkler         93,823         18,050         5,850,33           Sprinkler         93,823         18,050         18,050           Total North Little Rock         93,823         18,050         18,050           Total Water Sale         12,050         18,870,635         18,870,635           Commercial         1,879,635         18,879,635         18,879,635           Sprinkler         90,000         1,810,600         18,879,635         18,879,6	Operating Revenues				
Commercial         7,821,97         31,968         8,132,855           Large Volume         1,673,43         187,455         1,800,875           Sprinkle         23,088         2,971,751           Raw Water         23,089         55,000         78,098           Prival Fire Service         4,971,50         3,582,14         35,000           Total Little Rock         1,243,000         3,562,14         348,000           Residential         4,194,42         4,842,975         9,037,399           Commercial         1,481,700         609,445         2,500,101           Sprinkler         93,823         80,833         180,650           Sprinkler         93,823         80,933         180,650           Total North Little Rock         82,741         1,879,635<	Retail Water Sales – Little Rock				
Large Volume         1,673,140         187,455         1,860,555           Sprinkler         9,734,853         236,898         9971,751           Raw Water         20,908         55,000         78,000           Private Fire Service         497,135         53,898         551,034           Total Little Rock         497,135         35,60,142         34,00,045           Resident Water Sales - North Little Rock         4,194,42         4,842,975         9,037,399           Carge Volume         2,545,328         914,334         3,459,682           Large Volume         1,817,000         45,036         18,000           Sprinkler         9,322         36,833         18,056,00           Total North Little Rock         8,27,47         45,943         152,051,01           Residential         1,879,635         1,879,635         18,789,635           Commercial         1,879,635         1,879,635         1,879,635           Commercial         1,879,635         1,879,635         1,879,635           Commercial         1,879,635         1,879,635         1,879,635           Carrier Service         2,100,611         1,879,635         1,879,635           Carrier Service         4,100,611         1,879,635		, , , ,			
Sprinkler         9734,83         23,088         55,000         78,08           Ruw Water         23,088         55,000         78,08					
Raw Water         25,000         55,000         78,000           Printed Fire Service         407,100         55,000         78,000           Residential         4,194,40         4,842,75         9,037,300           Certail Water Sales - North Little Rock         4,194,42         4,842,75         9,037,300           Cange volume         5,154,528         91,458         8,058,30           Large Volume         9,382         86,833         180,600           Printed Fire Service         93,83         86,833         180,600           Total North Little Rock         88,274         4,944         4,942,75         9,011,410           Residential         1,481,00         6,943         18,060,10					
Private Fire Service         497,13         53,808         551,048           Total Little Rock         31,243,91         3,562,142         34,806,048           Residinal         4,194,42         4,842,975         90,373,908           Commercial         2,545,388         914,354         3,590,148           Sprinkler         1,817,02         4,843         55,003           Sprinkler         93,823         1,808,33         1,808,03           Private Fire Service         93,823         86,833         1,806,03           Total North Little Rock         38,27,47         4,994,33         1,809,63           Residential         1,879,635         1,879,635         1,879,635           Commercial         1,879,635         1,879,635         1,879,635           Commercial         1,879,635         1,879,635         1,879,635           Sprinkler         2,120,610         1,879,635         1,879,635           Sprinkler         40,71,735         1,231,410         3,232,413           Sprinkler         40,71,735         1,251,400         3,232,413           Sprinkler         40,71,735         1,251,400         3,252,751           Total Retail Water Sales         1,250,500         1,250,500         1,25	-				
Total Little Rock         31,243,901         3,562,142         34,806,045           Residential         4,194,424         4,842,975         9,037,390           Commercial         2,545,328         914,354         3,459,085           Large Volume         151,197         45,830         558,033           Sprinkler         93,823         80,943         1,807,051           Private Fire Service         93,823         1,807,635         1,807,635           Total North Little Rock         93,823         1,879,635         1,879,635           Commercial         1,879,635         1,879,635         1,879,635           Commercial         1,879,635         1,879,635         1,879,635           Commercial         1,280,630         3,82,288         398,238           Commercial         1,280,635         3,82,288         398,238           Commercial         2,213,100         3,82,283         398,238           Commercial         3,219,815         3,181,605         3,181,605         3,181,605           Large Volume         4,007,137         3,281,405         3,219,815         3,219,815         3,219,815         3,219,815         3,219,815         3,219,815         3,219,815         3,219,815         3,219,815					
Residential         4,194,24         4,842,975         9,037,399           Commercial         2,545,328         914,354         3,459,082           Large Volume         512,197         45,836         558,033           Sprinkler         1,841,702         60,945         2,091,147           Private Fire Service         93,823         86,833         18,056           Total North Little Rock         8,27,47         6,949,43         15,26,015           Residential         1,879,635         1,879,635         1,879,635           Commercial         1,20,611         120,611         120,611           Large Volume         308,238         382,238           Sprinkler         1,20,611         120,611         120,611           Large Volume         3,219,815         3,219,815         3,219,815           Sprinkler         40,071,375         3,218,010         3,219,815           Total Retail Water Sales         1,250,500         1,250,500           Shynikler and Sewer Department         1,250,500         1,250,500           Saline County Water and Sewer Public Facilities Board (Wood land Hills)         1,10,70         1,10,70           Saline Water Sasciation         1,076,479         1,346,72         1,346,72					
Residential         4,194,24         4,842,975         9,037,398           Commercial         2,545,238         914,354         3,459,682           Large Volume         1,281,702         609,445         2,591,147           Sprinkler         1,817,02         609,445         2,091,147           Private Fire Service         93,823         86,833         18,056           Total North Little Rock         8,27,47         6,499,43         15,326,915           Residential         1,879,635         1,879,635         1,879,635           Commercial         12,0611         120,611         120,611           Large Volume         398,238         398,238         398,238           Sprinkler         32,19,615         3,219,815         3,219,815           Total Maumelle         3,219,815         3,219,815         3,219,815           Total Retail Water Sales         1,250,560         1,250,560         1,250,560           Shannon Hills         1,158,76         1,10,970         1,00,767           Saline County Water and Sewer Dublic Facilities Board (Woodland Hills)         1,58,75         1,58,75           Salem Water Users Association         1,00,6479         1,076,479         1,346,726           Mid Arkansas Utilities         7	<del></del>	31,243,9	701	3,562,142	34,806,043
Commercial         2,545,238         91,4354         3,459,682           Large Volume         512,197         45,836         558,033           Sprinkler         1,811,702         609,445         2,011,417           Private Fire Service         3,832         86,833         18,056           Total North Little Rock         8,827,47         6,499,43         1,526,017           Residential         1,879,635         1,879,635         1,879,635           Commercial         12,061         120,611         10,611           Large Volume         398,238         398,238         398,238           Sprinkler         821,331         821,331         821,331           Total Maumelle         40,713,75         13,281,405         53,25,775           Total Retail Water Sales         12,250,500         13,250,500         15,250,500           Shannon Hills         18,081         18,					
Large Volume         512,197         45,836         558,031           Sprinkler         1,481,702         609,445         2,091,147           Private Fire Service         93,823         86,833         18,065           Total North Little Rock         8,27,47         6,49,43         1526,917           Residential         1,879,635         1,879,635         1,879,635           Commercial         1,20,611         120,611         120,611           Large Volume         398,238         398,238         398,238           Sprinkler         40,71,375         32,19,815         321,931           Total Maumelle         40,701,375         32,19,815         321,931           Total Retail Water Sales         40,701,375         328,140         33,237,755           Wholesale Water Sales         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761         1,100,761					
Sprinkler         1,481,702         609,445         2,091,147           Private Fire Service         93,823         86,833         180,656           Total North Little Rock         8,827,47         6,499,43         15,326,917           Resid Water Sales - Maumelle         8,827,47         6,499,43         1,879,635         1,829,636         1,829,635					
Private Fire Service         93.82         86.833         18.056.0           Total North Little Rock         8,827,44         6,499,43         15,326,917           Residential         1,879,635         1,879,635         1,879,635           Commercial         1,20,611         120,611         120,611           Large Volume         382,33         38,238         38,238           Sprinkler         821,331         821,331         821,331           Total Maumelle         40,713.75         32,19,815         321,931           Total Retail Water Sales         40,701,35         328,100         33,227,75           Wholesale Water Sales         1,250,560         1,250,560         1,250,560           Shannon Hills         1,10,70					*
Total North Little Rock         8,827,47         6,499,443         15,326,917           Restail Water Sales - Maumelle         1,879,635         1,879,635           Commercial         120,611         120,611           Large Volume         398,238         398,238           Sprinkler         821,331         821,331           Total Maumelle         3,219,815         3,219,815           Total Retail Water Sales         40,071,375         13,281,000         335,27,75           Bryant Water and Sewer Department         1,250,560         1,250,560           Shannon Hills         180,819         180,819         180,819           Saline County Water and Sewer Public Facilities Board (Woodland Hills)         110,764         1,587           Saline Water Users Association         1,076,479         1,764,79           Jacksonville Water Works         1,346,726         75,236           Ridgefield Estates Public Facilities Board         1,076,479         1,764,79           Ridgefield Estates Public Facilities Board         2,28,404         228,440           Cabot Water Works         2,28,40         228,440           Cabot Water Board         88,50         88,50           Total Wholesale Water Sales         88,50         88,50           Penaltie	-				
Residential Residential 1,879,635 1,879,635         1,879,635 1,879,635         1,879,635 1,20,611         1,20,611 1,20,611         1,20,611 1,20,611         1,20,611 1,20,611         1,20,611 1,20,611         1,20,611 1,20,611         1,20,611 1,20,611         1,20,611 1,20,611         3,213,815         398,238         398,208         398,208         398,2					
Residential         1,879,635         1,879,635           Commercial         120,611         120,611           Large Volume         398,238         398,238           Sprinkler         821,331         321,9815           Total Maumelle         40,971,375         32,19,815         32,19,815           Total Retail Water Sales         40,971,375         32,19,815         32,252,755           Wholesale Water Sales         1,250,560         1,250,560         12,500,560 <t< td=""><td>Total North Little Rock</td><td>8,827,4</td><td>1/4</td><td>6,499,443</td><td>15,326,917</td></t<>	Total North Little Rock	8,827,4	1/4	6,499,443	15,326,917
Commercial         120,611         120,611           Large Volume         398,238         398,238           Sprinkler         821,331         821,331           Total Maumelle         3,219,815         3,219,815           Total Retail Water Sales         40,071,75         13,281,400         53,352,775           Bryant Water and Sewer Department         1,250,560         1,250,560         1,250,560         180,819         180,819           Sandis Water Association         180,819	Retail Water Sales – Maumelle				
Large Volume         398,238         398,238           Sprinkler         821,331         821,331           Total Maumelle         3,219,815         3,219,815           Total Retail Water Sales         40,071,375         13,281,400         53,352,775           Wholesale Water Sales         1,250,560         1,250,560         12,50,560         180,819<					
Sprinkler         821,331         821,331           Total Maumelle         3,219,815         3,219,815           Total Retail Water Sales         40,071,75         13,281,400         53,352,775           Wholesale Water Sales         1,250,560         1,250,560         12,50,560         180,819<				*	
Total Maumelle         3,219,815         3,219,815           Total Retail Water Sales         40,071,375         13,281,400         53,352,775           Wholesale Water Sales         I 1,250,560         1,250,560         1,250,560         12,50,560         180,819         190,619					
Total Retail Water Sales         40,071,375         32,81,400         53,352,775           Wholesale Water Sales         31,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,250,560         1,10,970         1,10,970         1,10,970         1,10,970         1,10,970         1,10,970         1,10,970         1,10,970         1,10,970         1,10,76,479         1,076,479         2,074,400         2,074,400         2,074,400         2,074,400         2,074,400         2,074,400         2,074,400         2,074,400<	•				
Wholesale Water Sales           Bryant Water and Sewer Department         1,250,560         1,250,560           Shannon Hills         180,819         180,819           Sardis Water Association         110,970         110,970           Saline County Water and Sewer Public Facilities Board (Woodland Hills)         15,587         15,587           Salem Water Users Association         1,076,479         1,076,479           Jacksonville Water Works         1,346,726         1,346,726           Mid Arkansas Utilities         75,236         75,236           Ridgefield Estates Public Facilities Board         17,183         17,183           Cabot Water Works         228,440         228,440           Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges           Billing and Ancillary Fees         2,175,298         2,175,298           Connection Fees         858,000         858,000	Total Maumelle			3,219,815	3,219,815
Bryant Water and Sewer Department         1,250,560         1,250,560           Shannon Hills         180,819         180,819           Sardis Water Association         110,970         110,970           Saline County Water and Sewer Public Facilities Board (Woodland Hills)         15,587         15,587           Salem Water Users Association         1,076,479         1,076,479           Jacksonville Water Works         1,346,726         1,346,726           Mid Arkansas Utilities         75,236         75,236           Ridgefield Estates Public Facilities Board         17,183         17,183           Cabot Water Works         228,440         228,440           Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges           Turn-on Charges         884,500         884,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges           Billing and Ancillary Fees         2,175,298         2,175,298           Connection Fees         858,000         858,000	Total Retail Water Sales	40,071,3	375	13,281,400	53,352,775
Shannon Hills         180,819         180,819           Sardis Water Association         110,970         110,970           Saline County Water and Sewer Public Facilities Board (Woodland Hills)         15,587         15,587           Salem Water Users Association         1,076,479         1,076,479           Jacksonville Water Works         1,346,726         1,346,726           Mid Arkansas Utilities         75,236         75,236           Ridgefield Estates Public Facilities Board         17,183         17,183           Cabot Water Works         228,440         228,440           Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Billing and Ancillary Fees         2,175,298         2,175,298           Connection Fees         858,000         858,000	Wholesale Water Sales				
Sardis Water Association         110,970         110,970           Saline County Water and Sewer Public Facilities Board (Woodland Hills)         15,587         15,587           Salem Water Users Association         1,076,479         1,076,479           Jacksonville Water Works         1,346,726         1,346,726           Mid Arkansas Utilities         75,236         75,236           Ridgefield Estates Public Facilities Board         17,183         17,183           Cabot Water Works         228,440         228,440           Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges           Penalties and Turn-on Charges         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Ancillary Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Connection Fees         858,000         858,000	Bryant Water and Sewer Department			1,250,560	1,250,560
Saline County Water and Sewer Public Facilities Board (Woodland Hills)         15,587         15,587           Salem Water Users Association         1,076,479         1,076,479           Jacksonville Water Works         1,346,726         1,346,726           Mid Arkansas Utilities         75,236         75,236           Ridgefield Estates Public Facilities Board         17,183         17,183           Cabot Water Works         228,440         228,440           Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges           Penalties         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Billing and Ancillary Fees         2,175,298         2,175,298           Connection Fees         858,000         858,000	Shannon Hills				180,819
Salem Water Users Association       1,076,479       1,076,479         Jacksonville Water Works       1,346,726       1,346,726         Mid Arkansas Utilities       75,236       75,236         Ridgefield Estates Public Facilities Board       17,183       17,183         Cabot Water Works       228,440       228,440         Total Wholesale Water Sales       4,302,000       4,302,000         Penalties and Turn-on Charges         Penalties       884,500       884,500         Turn-on Charges       1,188,500       1,188,500         Total Penalties and Turn-on Charges       2,073,000       2,073,000         Ancillary Charges       2,175,298       2,175,298         Billing and Ancillary Fees       2,175,298       2,175,298         Connection Fees       858,000       858,000					
Jacksonville Water Works       1,346,726       1,346,726         Mid Arkansas Utilities       75,236       75,236         Ridgefield Estates Public Facilities Board       17,183       17,183         Cabot Water Works       228,440       228,440         Total Wholesale Water Sales       4,302,000       4,302,000         Penalties and Turn-on Charges       884,500       884,500         Turn-on Charges       1,188,500       1,188,500         Total Penalties and Turn-on Charges       2,073,000       2,073,000         Ancillary Charges       2,175,298       2,175,298         Billing and Ancillary Fees       2,175,298       2,175,298         Connection Fees       858,000       858,000	•				
Mid Arkansas Utilities       75,236       75,236         Ridgefield Estates Public Facilities Board       17,183       17,183         Cabot Water Works       228,440       228,440         Total Wholesale Water Sales       4,302,000       4,302,000         Penalties and Turn-on Charges         Penalties       884,500       884,500         Turn-on Charges       1,188,500       1,188,500         Total Penalties and Turn-on Charges       2,073,000       2,073,000         Ancillary Charges       2,175,298       2,175,298         Connection Fees       858,000       858,000					
Ridgefield Estates Public Facilities Board       17,183       17,183         Cabot Water Works       228,440       228,440         Total Wholesale Water Sales       4,302,000       4,302,000         Penalties and Turn-on Charges       884,500       884,500         Turn-on Charges       1,188,500       1,188,500         Total Penalties and Turn-on Charges       2,073,000       2,073,000         Ancillary Charges       2,175,298       2,175,298         Connection Fees       858,000       858,000					
Cabot Water Works         228,440         228,440           Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Connection Fees         858,000         858,000					
Total Wholesale Water Sales         4,302,000         4,302,000           Penalties and Turn-on Charges         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Connection Fees         858,000         858,000	-				
Penalties and Turn-on Charges           Penalties         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         81lling and Ancillary Fees         2,175,298         2,175,298           Connection Fees         858,000         858,000					
Penalties         884,500         884,500           Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Connection Fees         858,000         858,000				4,302,000	4,302,000
Turn-on Charges         1,188,500         1,188,500           Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         2,175,298         2,175,298           Connection Fees         858,000         858,000	_				
Total Penalties and Turn-on Charges         2,073,000         2,073,000           Ancillary Charges         81lling and Ancillary Fees         2,175,298         2,175,298           Connection Fees         858,000         858,000					
Ancillary Charges         2,175,298         2,175,298           Billing and Ancillary Fees         258,000         858,000	•				
Billing and Ancillary Fees       2,175,298         Connection Fees       858,000	Total Penalties and Turn-on Charges			2,073,000	2,073,000
Connection Fees 858,000 858,000					
W 1 1D 1 1 D 1 1 D 1 1 D 1 D 1 D 1 D 1 D					*
,,	Watershed Protection Fees			1,080,000	1,080,000
Capital Investment Charges 125,000 125,000	· ·			*	
System Development Charges 297,000 297,000	· · · · · · · · · · · · · · · · · · ·				
Total Ancillary Charges         4,535,298         4,535,298	Total Ancillary Charges			4,535,298	4,535,298
Maumelle Surcharges					
Maumelle Surcharge Revenue         2,210,750         2,210,750	<del>-</del>				
Total Maumelle Transition Surcharges 2,210,750 2,210,750	Total Maumelle Transition Surcharges			2,210,750	2,210,750

	INSIDE	OUTSIDE	TOTAL
Other Revenue		840,400	840,400
Total Operating Revenues	40,071,375	27,242,848	67,314,223
Non-operating Revenues			
Interest Income		315,000	315,000
Bond Issue Interest Income		23,600	23,600
Total Non-operating Revenues	· · · · · · · · · · · · · · · · · · ·	338,600	338,600
Total Operating and Non-operating Revenues	\$ 40,071,375	\$ 27,581,448	\$ 67,652,823

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

Materials

	Labor and	Supplies and	Electric and	Contract				Transition	Departmental
	Benefits	Maintenance	Other Utilities	Services	Chemicals	Depreciation	Other	Cost - MWM	Total
Administration									
Administration	\$ 962,425	\$ 211,585	\$ 960	\$ 501,540	_	_	\$ 36,000	\$ —	\$ 1,712,510
Human Resources	591,980	40,483	_	41,950	_	_	_	_	674,413
Public Affairs and Communications	362,573	202,500	1,680	153,250	_	_	6,000	5,000	731,003
Environmental Health and Safety	453,036	153,700	1,940	174,648	_	_	_	_	783,324
Commissioners Expense	_	1,200	_	14,400	_	_	_	_	15,600
Special Projects	73,532	100	_	_	_	_	_	_	73,632
Total Administration	2,443,546	609,568	4,580	885,788	_	_	42,000	5,000	3,990,482
Information Services									
Administration	1,079,539	843,856	437,652	11,800	_	_	_	_	2,372,847
Geographic Information System	673,453	219,854	_	8,642	_	_	_	_	901,949
Total Information Systems	1,752,992	1,063,710	437,652	20,442	_	_			3,274,796
Customer Service									
Administration	123,302	37,840	9,300	28,670	_	_	_	_	199,112
Cashiering	418,390	_	_		_	_	_	_	418,390
Call Center	1,057,378	_	_	_	_	_	_	_	1,057,378
Walk-in	268,459	_	_	_	_	_	_	_	268,459
Meter Reading	730,891	1,200	_	_	_	_	_	_	732,091
Production Meter Reading	589,335	-,200	_	_	_	_	_	_	589,335
Total Customer Service	3,187,755	39,040	9,300	28,670					3,264,765
Finance	., . ,	,.	,,	-,-					., . ,
Administration	1,173,896	77,875	1,250	390,550					1,643,571
			1,230	•		_			
Billing Purchasing	455,372 251,273	645,600 1,050	480	2,000 6,365	_	_	_	_	1,102,972
Total Finance	1,880,541	724,525	1,730	398,915					259,168 <b>3,005,711</b>
General and Depreciation	1,412,431	195,500	108,000	649,460	_	12,520,835	300,000	_	15,186,226
	1,412,401	700,000	100,000	040,400		12,020,000	000,000		10,100,220
Engineering	4 440 050	F7.000	0.040	00.050				050.000	4 757 040
Administration	1,413,853	57,900	3,840	32,253	_	_	_	250,000	1,757,846
New Service	168,144	580	_	780	_	_	_	_	169,504
Cross-Connection Control	243,571	13,680	1,440	2,880	_	_	_	_	261,571
Regionalism	173,280	1,300	480	720				250,000	2,364,701
Total Engineering	1,998,848	73,460	5,760	36,633	_	_	_	250,000	2,304,701
Water Production									
Administration	410,111	1,725	1,920	6,200		_	_	_	419,956
Lake Maumelle	567,148	73,675	1,100,000	12,583	17,240	_	_	_	1,770,646
Lake Winona		6,000	14,000	331	10,000	_	_	_	30,331
Ozark Point Plant	642,405	30,300	260,000	1,000	374,864	_	_	_	1,308,569
Wilson Plant  Booster Stations/	2,116,504	211,400	1,345,344	15,300	1,210,449	_	_	_	4,898,997
Jackson Reservoir	2 726 460	222 400	1,072,500	25 444	4 640 550	_			1,072,500
Total Water Production	3,736,168	323,100	3,793,764	35,414	1,612,553	_	_	_	9,500,999
Distribution									
Administration	593,600	201,500	61,200	654,946	_	_	_	17,000	1,528,246
Meters, Warehouse, and Dispatch	1,125,140	3,600	_	400	_	_	_	_	1,129,140
Pump Station Maintenance	718,842	122,500	_	_	_	_	_	_	841,342
Plant Maintenance – Ozark/Wilson	840,302	430,000	_	_	_	_	_	_	1,270,302
Distribution System Maintenance	5,128,215	2,491,100	_	500	_	_	_	_	7,619,815
Distribution Facility Maintenance	231,035	14,500	_	_	_	_	_	_	245,535
Distribution Field Service	1,445,146	16,000	_	_	_	_	_	_	1,461,146

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	Labor and	Supplies and	Electric and	Contract				Transition	Departmental
	Benefits	Maintenance	Other Utilities	Services	Chemicals	Depreciation	Other	Cost - MWM	Total
Total Distribution	10,082,280	3,279,200	61,200	655,846	_		_	17,000	14,095,526
Water Quality									
Administration	289,102	93,250	3,500	402,944	_	_	_	_	788,796
Watershed Management	358,981	58,500	1,500	236,100	_	_	_	_	655,081
Laboratory	600,433	182,220	_	57,500	_	_	_	_	840,153
Total Water Quality	1,248,516	333,970	5,000	696,544	_	_	_	_	2,284,030
Total	\$27,743,077	\$ 6,642,073	\$ 4,426,986	\$3,407,712	\$ 1,612,553	\$ 12,520,835	\$342,000	\$ 272,000	\$ 56,967,236

#### STATEMENT OF NET POSITION

Beginning Net Position, 1/1/2017	\$ 358,763,813
Operating Revenues, 2017	62,156,703
Operating Expenses, 2017	(53,999,072)
Other Expense, 2017	(2,461,069)
Contributions, 2017	2,688,740
Change in Net Position, 2017	8,385,302
Ending Net Position, 12/31/2017	367,149,115
Beginning Net Position, 1/1/2018	367,149,115
Operating Revenues, 2018	67,314,223
Operating Expenses, 2018	(56,967,236)
Other Expense, 2018	(3,224,443)
Contributions, 2018	2,000,000
Change in Net Position, 2018	9,122,544
Ending Net Position, 12/31/2018	\$ 376,271,659

Ending Net Position is based on 2017 projected numbers and 2018 budgeted numbers.

#### **BUDGETED POSITIONS**

Central Arkansas Water budgets employee positions each year. Total budgeted positions increase by five in the 2018 budget. A total of 335 budgeted positions are identified in detail in the accompanying Summary of Budgeted Positions which lists the department, position title, and number of budgeted or actual positions. A numerical index 1-17 reflects modifications made to position titles or department locations.

#### **Administration**

The Administration Department includes Human Resources, Environmental Health and Safety, Public Affairs and Communications as well as the Chief Executive Officer and his staff. The executive staff includes the General Counsel position. Administration is budgeted to increase to a total of 19 positions in 2018. This increase is due to the movement of the Chief Financial Officer from Finance; the transfer of a Facility Maintenance Specialist from the Distribution department; the additions of a Special Projects Manager, a Safety Specialist, and a Social Media Specialist; and the retirement of the Technical Services Officer, whose position will not be refilled.

#### **Finance**

Finance remains constant from the 2017 budget with a total of 24 employees. However, there has been a change with the Chief Financial Officer position moving to Administration. The addition of an Administrative Assistant offsets this change to remain at 24 employees for 2018. The 2018 Finance budgeted positions include 14 Accounting staff, three Purchasing staff, and seven Billing staff. Finance employs two part-time CAW retirees.

#### **Customer Service**

The 2018 budgeted positions for Customer Service increase four from the 2017 budget to 53 budgeted positions. This is primarily due to the implementation of the new CIS, which will commence in 2018. The department consists of 32 Customer Service employees, seven full-time Meter Reading Staff/Supervisor, and 14 part-time Production Meter Readers.

#### **Information Services**

The budgeted Information Services staff increases by one position from 2017 to 2018 to a total of 18 employees. This increase is due to the addition of a Database Coordinator position to assist with the CIS implementation. The Information Services budgeted positions include a Director, ten IS support staff, a GIS Manager, and six GIS staff. Actual department employment is 16, with one vacant position as of September 1, 2017.

#### **Engineering**

The Engineering Department 2018 budget remains unchanged with a total of 24 positions. This includes 16 Engineering staff, four New Service staff, three Cross Connection staff, and one employee in Regionalism. The department is currently fully staffed as of September 1, 2017. 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 increase by one to a total of 37 employees for the 2018 budget year. This increase is due to the transfer of two Plant Maintenance Specialists from the Distribution department, the additions of a Facilities Operator position and a Production Manager, and is offset by the elimination of three Assistant Production Manager positions. Water Production staff includes the Director of Water Production, Administrative personnel, Treatment Plant, and Water Source employees.

#### **Water Quality**

Water Quality staffing for 2018 remains the same as the 2017 budget with a total of 13 employees. The department positions include eight Laboratory staff which include a Water Quality Specialist, Laboratory Manager, a Chemist, two Laboratory Technicians, and three Field Laboratory Technicians. The department also includes the Director of Water Quality, the Watershed Protection Manager, a Natural Resource Specialist (formerly the Watershed Administrator), and two Watershed Technicians (formerly Rangers in the Water Production department).

#### **Distribution**

Total staffing in Distribution decreases by five to 147 employees for the 2018 budget period. This decrease is due to the transfer of two Plant Maintenance Specialists to the Water Production department, the transfer of a Facility Maintenance Specialist to Administration, and the elimination of the Facility Manager and Maintenance Helper positions. 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) Customer Service Field Representatives.

Change in Budgeted Positions by Year										
2014 2015 2016 2017 2										
Administration	0	+2	+2	0	+4					
Finance	0	0	+3	+1	0					
Information Services	0	0	0	0	+1					
Engineering	-1	-1	0	+2	0					
Water Production	+1	-1	+6	0	+1					
Distribution	0	+4	+16	+5	-5					
Water Quality	0	+1	0	-1	0					
Customer Service	0	+1	+3	0	+4					

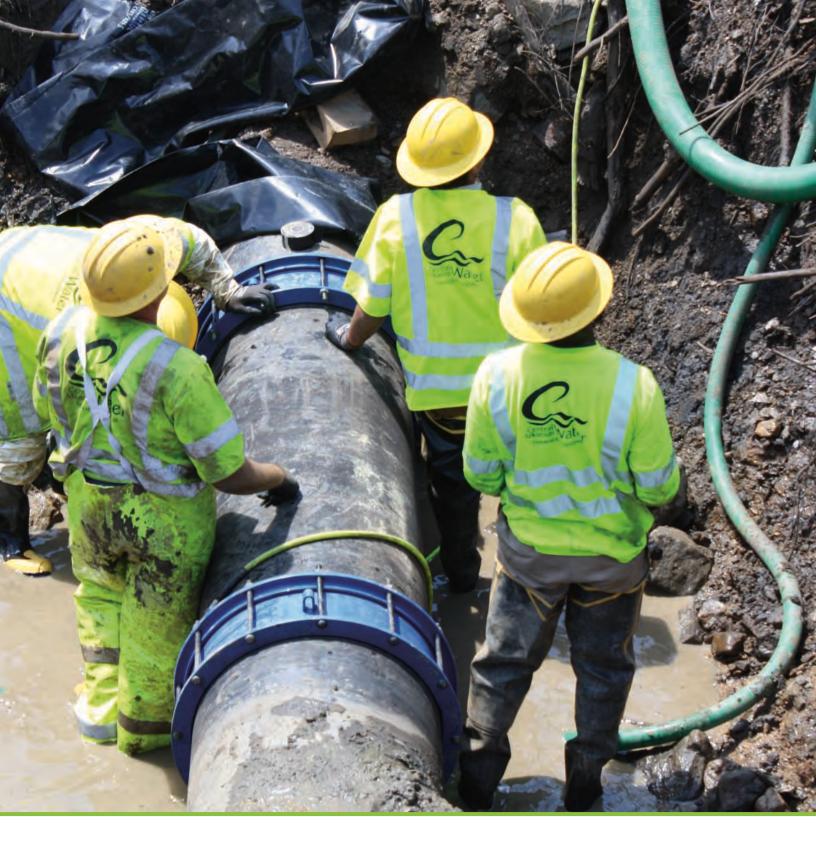
		2014 Budget	2015 Budget	2016 Actual	2017 Budget	9/1/2017 Actual	2018 Budget
	Administration						
	Chief Executive Officer	1	1	1	1	1	1
9	Chief Legal Counsel	_	1	_	_	_	_
	Chief Operating Officer	1	1	1	1	1	1
3	Chief Financial Officer	_	_	_	_	_	1
	Technical Services Officer	1	1	1	1	1	_
9	General Counsel	_	_	1	1	1	1
	Management Secretary	1	1	1	1	1	1
3	Administrative Assistant	_	1	1	1	1	1
	Chief Administrative Officer	1	1	1	1	1	1
	Human Resources Specialist	2	2	2	2	2	2
	Human Resources Assistant	1	1	1	1	1	1
3,10	Director of Public Affairs and Communications	_		1	1	1	1
16	Education/Outreach Specialist	_		_	1	1	1
3,17	Communications Specialist/Brand Manager	1	1	1	1	1	1
	Director of Environmental Health and Safety	1	1	1	1	1	1
	Safety Specialist	1	1	1	1	1	2
3	Facility Maintenance Specialist	1	1		_	_	1
5	Special Projects Manager	_	_	_	_	_	1
5	Social Media Specialist	_	_	_	_	_	1
	Total	12	14	14	15	15	19
	Finance						
3	Chief Financial Officer	1	1	1	1	1	_
5	Director of Finance	_	_	_	_	_	1
	Administrative Assistant	1		_	_	1	1
	Controller	2	1	_	1	1	1
	Finance Manager	_	1	1	1	1	1
	Grants Specialist	_	_	_	1	_	_
	General Accountant	2	2	3	3	2	3
	Accounting Clerk I, II	4	5	6	6	6	6
	Clerical - P/T	_	1	1	1	1	1
	Purchasing/Records Clerk	1	1	1	1	1	1
	Warehouse Buyer	1	1	1	1	_	1
	Purchasing Manager	1	1	1	1	1	1
	Billing Supervisor	1	1	1	1	1	1
	Billing Account Specialist	4	4	5	5	4	5
	Billing Account Specialist – P/T	2	1	1	1	1	1
					_		

		2014	2015	2016	2017	9/1/2017	2018
		Budget	Budget	Actual	Budget	Actual	Budget
	Total	20	20	22	24	21	24
	Customer Service						
3,10	Director of Customer Relations and Public Affairs	_	1	_	_	_	_
	Customer Service Manager	1	1	1	1	1	1
	Customer Service Supervisor – Office	1	1	1	2	1	1
	Customer Service Assistant Supervisor	1	1	_	_	1	1
7a	Cashier/PT Cashier	3	3	4	4	3	4
	Receptionist	1	1	1	1	1	1
	Customer Service Office Representative Walk-in	4	4	4	4	4	4
7d	Customer Service Office Representative Call Center/Lead	14	15	13	12	13	18
7d	Customer Service Office Representative Call Center - P/T	1	_	3	3	_	_
12	Meter Reading Supervisor	_	_	_	1	1	1
12	Customer Service Assistant Supervisor – Field	1	1	1	_	_	_
	Customer Relations Specialist	1	1	1	1	1	1
	Customer Relations Specialist – P/T	1	1	1	1	1	1
	Meter Reader	5	5	5	7	6	6
	Production Meter Reader – P/T	11	11	12	12	10	14
	Total	45	46	47	49	43	53
	Information Services						
	Director of Information Services	1	1	1	1	1	1
	Network Administrator	2	2	1	2	1	2
	Information Services Technician I, II	2	2	2	2	2	2
	Help Desk Technician	1	1	1	1	1	1
	Database Coordinator	2	2	2	2	2	3
	Computer Operator	2	2	2	2	2	2
	Database Administrator	1	1	1	1	1	1
	GIS Manager	1	1	1	1	1	1
	GIS Technician	4	4	4	4	4	4
	Field Data Collector	1	1	1	1	1	1
	Total	17	17	16	17	16	18
	Engineering						
	Director of Engineering	1	1	1	1	1	1
	Engineering Administrative Assistant	1	1	1	1	1	1
	New Service Coordinator - P/T	1	1	1	1	1	1
	Engineering Technician	8	8	8	9	9	9
	Engineering Aide	1	1	1	1	1	1
3	Engineer / SR Engineer	4	3	3	4	4	4
	New Service Representative	2	2	2	2	2	2
	New Service Representative - P/T	1	1	1	1	1	1
	Water Regulations Specialist	3	3	3	3	3	3
	MGR. of Planning, Regionalism and Future Water Source	1	1	1	1	1	1
	Total	23	22	22	24	24	24
	Water Quality						
	Director of Water Quality	1	1	1	1	1	1
	Assistant Director of Water Quality	_	1	1	_	_	_
	Watershed Protection Manager	1	1	1	1	1	1
13	Watershed Administrator	1	_	_	_	_	_

		2014 Budget	2015 Budget	2016 Actual	2017 Budget	9/1/2017 Actual	2018 Budget
1	Conservation Coordinator	1	1	_	_	_	_
3	Water Quality Specialist	1	1	1	1	1	1
13	Natural Resource Specialist	_	_	_	1	_	1
14	Watershed Technician	2	2	2	2	2	2
3	Laboratory Manager	1	1	1	1	1	1
3,7c	Chemist	_	1	1	1	1	1
3,7c	Laboratory Technician	3	3	2	2	2	2
3	Field Laboratory Technician	2	2	3	3	3	3
	Total	13	14	13	13	12	13
	Water Production						
	Director of Production	1	_	_	1	1	1
	System and Administrative Coordinator	1	1	1	1	1	1
15	Optimization Manager	1	1	1	1	1	1
	Production Manager	_	_	2	3	4	4
1	Assistant Production Manager	_	_	_	3	_	_
3	Senior Engineer	1	1	_	_	_	_
1	Treatment Plant Supervisor	2	2	2	_	_	_
3		2	2	_	_	_	2
8	Treatment Plant Operator	17	17	20	_	_	_
	Facilities Operator I, II, III	_	_	_	27	28	28
1	Supervisor of Water Resources	1	1	1	_	_	
	Pumping Facility Operator	5	5	4	_	_	_
	Total	31	30	31	36	35	37
	Distribution						
	Director of Distribution	1	1	1	1	1	1
	Distribution Administrative Assistant	1	1	1	1	1	1
	Assistant Director of Distribution	1	1	1	1	1	1
	Distribution Manager	1	1	1	1	1	1
	Dispatcher / Lead Dispatcher	5	5	5	5	5	5
	Warehouse Foreman	1	1	1	1	_	1
	Warehouse Specialist	4	4	3	4	4	4
	Field Meter Repairer	3	3	3	3	3	3
	·	_	-	-			
	Meter Shop Foreman	1 3	1 3	1 4	1 4	1 4	1
	Instrument Technician I, II	_	-	-	-	-	4
	Maintenance Technician	6	6	7	9	9	9
	Maintenance Helper			1	1		
	Facility Manager	_	_	_	1	_	_
3	Lake Winona Supervisor	1	1	1	1	1	1
3	Maintenance Repair Worker	1	1	1	1	1	1
3	Plant Maintenance Specialist	_	_	_	2	1	_
3	,	_	_	_	1	1	_
	Lead Groundskeeper	1	1	1	1	1	1
	Maintenance Supervisor	1	1	1	1	1	1
	Industrial Electrician	2	2	2	3	3	3
	Distribution Supervisor	6	6	6	6	6	6
	Water Distribution Specialist I, II, III	45	48	48	56	52	56
	Troubleshooter	7	7	6	7	6	7
	Foreman	19	20	20	21	20	21
	Distribution Coordinator	1	1	1	1	_	1

		2014	2015	2016	2017	9/1/2017	2018
		Budget	Budget	Actual	Budget	Actual	Budget
3	Customer Service-Supervisor-Field/Lead	1	1	1	1	1	2
3	Customer Service-Field Representative	14	14	17	17	17	16
	Total	126	130	134	152	141	147
	Total All Departments	287	293	299	330	307	335

- 1 Position removed from authorized staffing
- 2 Temporary position
- 3 Position moved to/from another department
- 4 Added Wye Mountain employee
- 5 New position
- 6 Director of Watershed Management position replaced by Watershed Protection Manager
- 7a Customer Service Records Clerk position reclassified as a Cashier position
- 7b Stewardship Coordinator re-titled Conservation Coordinator
- 7c One Laboratory Technician reclassified as Chemist
- 7d Two Part time Customer Service Office Representatives reclassified as F/T
- 8 Treatment Plant Operator & Pumping Facility Operator Combined Facilities Operator I,II,III
- 9 Chief Legal Counsel reclassified as General Counsel
- 10 Director of Customer Relations & Public Affairs reclassified to Director of Public Affairs & Communications
- 11 Upgrade position to Supervisor
- 12 Title change to Meter Reading Supervisor
- 13 Watershed Administrator Revised & Retitled Natural Resource Specialist
- 14 Ranger Revised & Retitled Watershed Technicians
- 15 Assistant Director of Operations Retitled Assistant Director of Production
- 16 Public Education Specialist Retitled Education/Outreach Specialist
- 17 Communications Assistant Retitled Communications Specialist/Brand Manager



## DEBT SERVICE

#### **DEBT SERVICE – OVERVIEW**

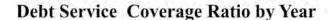
All of CAW's outstanding Revenue Bonds, other than the 2016 Maumelle Acquisition and Construction Bonds, Frazier Pike Public Facilities Board ANRC loan, and Wye Mountain Water Facilities Board ANRC loan, are secured by and payable solely from the net revenues of the water system. CAW debt covenants specify 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.

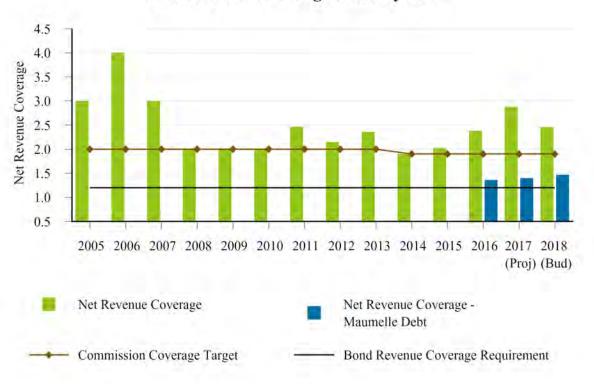
The 2016 Maumelle bond issue is payable from long term debt surcharges applied to all customers in the former Maumelle Water Management service area. These charges will remain in place until sufficient funds have been collected to repay the \$22.75 million outstanding principal on this bond issuance.

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, 2017)				
2010a	October	2032	\$13,400,000	\$11,129,000				
2010c	October	2030	\$8,830,000	\$2,660,000				
2011a	April	2034	\$4,000,000	\$3,629,000				
2012a	October	2032	\$17,515,000	\$14,675,000				
2014	October	2034	\$10,850,000	\$9,155,000				
2015	October	2030	\$7,445,000	\$7,015,000				
2016	October	2027	\$17,860,000	\$17,815,000				
2016 Maumelle	April	2046	\$22,750,000	\$22,310,000				
TOTAL			\$102,650,000	\$88,388,000				





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 2015, 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 December 31, 2014 onward. 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 2005 through 2016, projected coverage for 2017, and budgeted coverage for 2018. The Utility maintained coverage consistently above the previous 200% Commission target with the exception of 2009. The Rate Stabilization Account was established the following year. The Utility met the revised 190% Commission target in 2014. Utility projections reflect coverage at 246% for 2018.

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 147% for 2018.





Bond covenants also require maintenance of minimum operating reserves. The chart above shows actual reserves on hand compared to the bond requirement for 2006 through 2016 and planned reserves on hand compared to the bond requirement for 2017 and 2018 based on forecasted numbers. 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 for 2016 onward. The elevated reserves beginning in 2010 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 wet and cool summer of 2017 combined with advance funding ANRC project costs with Utility funds contributed to a decline in reserves in 2017. The 2018 budgeted decrease in reserves is a result of capital expenses and required additional debt service related to a planned 2018 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 in 2020-2022 is due to increased debt service from the ANRC funded improvements at Wilson Plant which begins debt service in 2021 combined with successive years of inflationary pressure on operating costs with no rate increase to support Utility operating needs.





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 183 days cash on hand at the end of 2018. Days cash on hand begins to decline in 2019 and falls below the Utility goal of 150 days cash on hand in 2021 and 2022. The Utility has no approved retail rate increases beyond 2018 or wholesale rate increases beyond 2019. Increasing capital, operating, and debt service needs will require a rate increase by 2021 in order to maintain the Utility's goal for operating reserves.

#### **Debt Utilization Ratio by Year**



<sup>\*</sup> The benchmark is derived from a 2013 survey by AWWA where the median debt obligation for all utilities was 32%.

Two separate 20 year ANRC Bond issues are planned for rehabilitations and upgrades to the Ozark Point Plant and to rehabilitate Pump Station 1A at the Wilson Plant. The first bond in the amount of \$5.0 million will be issued in late 2017 to fund the Wilson Plant improvements. The second loan of \$26.0 million will be issued in the fourth quarter of 2019 to fund the Ozark Point Plant improvements. Proceeds from both bond issues will be drawn over a four year period. Repayment of the first bond will begin in 2021. In 2018, CAW plans to assume 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.

An approximately \$17 million 16 year water revenue bond is planned for mid-2018 to fund the Utility's CIS replacement project as well as a number of infrastructure projects throughout the CAW service area.

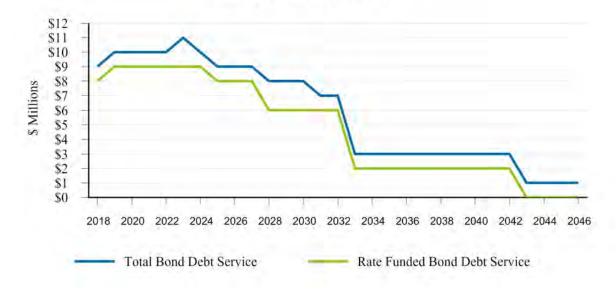
The chart above depicts CAW's actual debt utilization ratio for 2006 through 2016 and estimated ratios for 2017 and 2018, factoring in planned debt additions and repayments, as well as additional capital assets net of anticipated accumulated depreciation. Based on these estimates, the Utility's debt position will remain positive and below the AWWA benchmark.

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**

	OU	TSTANDING DEBT		F			
YEAR	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL	TOTAL
2018	5,651,993	2,680,940	8,332,933	470,000	298,850	768,850	9,101,783
2019	5,849,976	2,472,538	8,322,514	950,000	588,300	1,538,300	9,860,814
2020	6,048,398	2,282,428	8,330,826	980,000	559,800	1,539,800	9,870,626
2021	6,262,268	2,042,958	8,305,226	1,205,736	655,400	1,861,136	10,166,362
2022	6,506,600	1,797,589	8,304,189	1,240,629	620,207	1,860,836	10,165,025
2023	5,486,403	1,552,780	7,039,183	2,293,470	1,233,991	3,527,461	10,566,644
2024	5,501,688	1,354,788	6,856,476	2,359,057	1,171,304	3,530,361	10,386,837
2025	4,272,473	1,190,853	5,463,326	2,420,408	1,106,803	3,527,211	8,990,537
2026	4,368,766	1,095,485	5,464,251	2,497,543	1,029,268	3,526,811	8,991,062
2027	4,470,584	996,049	5,466,633	2,580,482	949,129	3,529,611	8,996,244
2028	3,182,938	890,776	4,073,714	2,664,245	866,166	3,530,411	7,604,125
2029	3,270,843	808,158	4,079,001	2,748,850	780,361	3,529,211	7,608,212
2030	3,384,311	718,153	4,102,464	2,834,321	691,690	3,526,011	7,628,475
2031	2,883,362	622,102	3,505,464	2,925,680	600,131	3,525,811	7,031,275
2032	2,973,001	539,755	3,512,756	3,022,947	505,464	3,528,411	7,041,167
2033	1,037,983	457,360	1,495,343	1,566,145	422,416	1,988,561	3,483,904
2034	909,584	424,368	1,333,952	1,605,299	383,262	1,988,561	3,322,513
2035	800,000	397,963	1,197,963	1,645,431	343,130	1,988,561	3,186,524
2036	825,000	371,963	1,196,963	1,686,567	301,994	1,988,561	3,185,524
2037	855,000	345,150	1,200,150	1,728,731	259,830	1,988,561	3,188,711
2038	885,000	316,294	1,201,294	1,771,949	216,612	1,988,561	3,189,855
2039	915,000	286,425	1,201,425	1,816,248	172,313	1,988,561	3,189,986
2040	945,000	255,544	1,200,544	1,861,647	126,907	1,988,554	3,189,098
2041	975,000	223,650	1,198,650	1,587,460	80,365	1,667,825	2,866,475
2042	1,010,000	189,525	1,199,525	1,627,155	40,679	1,667,834	2,867,359
2043	1,045,000	154,175	1,199,175	_	_	_	1,199,175
2044	1,080,000	117,600	1,197,600	_	_	_	1,197,600
2045	1,120,000	79,800	1,199,800	_	_	_	1,199,800
2046	1,160,000	40,600	1,200,600				1,200,600
TOTAL	\$ 83,676,171	\$ 24,705,769 \$	108,381,940	\$ 48,090,000 \$	14,004,372 \$	62,094,372	\$ 170,476,312

#### **Bond Issue Debt Service**

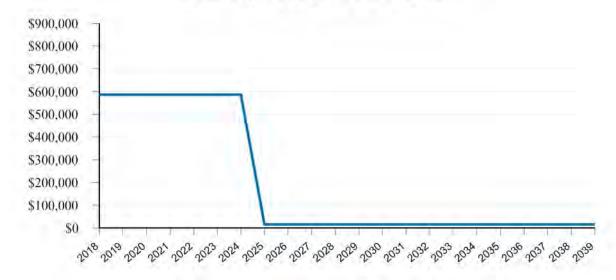


#### WATER RIGHTS PAYABLE DEBT SERVICE

GREERS FERRY OUTSTANDING WATER RIGHTS PAYABLE DEGRAY LAKE FUTURE WATER RIGHTS PAYABLE

YEAR	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL	TOTAL
2018	7,069	7,998	15,067	464,659	106,813	571,472	586,539
2019	7,316	7,751	15,067	478,599	92,873	571,472	586,539
2020	7,572	7,495	15,067	492,956	78,515	571,471	586,538
2021	7,837	7,230	15,067	507,745	63,726	571,471	586,538
2022	8,111	6,955	15,067	522,978	48,494	571,472	586,539
2023	8,395	6,672	15,067	538,667	32,805	571,472	586,539
2024	8,689	6,378	15,067	554,827	16,645	571,472	586,539
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	3,224	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
TOTAL	\$ 228,522	\$ 102,950 \$	331,473	\$ 3,560,430	\$ 439,871 \$	4,000,302	\$ 4,331,776

#### Water Rights Payable Debt Service



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# CAPITAL IMPROVEMENT PLAN

#### 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. In order to guide needed infrastructure investments, the Utility updates a five-year capital improvement plan (CIP) each year that projects the Utility's spending for anticipated capital needs, addressing 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 expenditure 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.

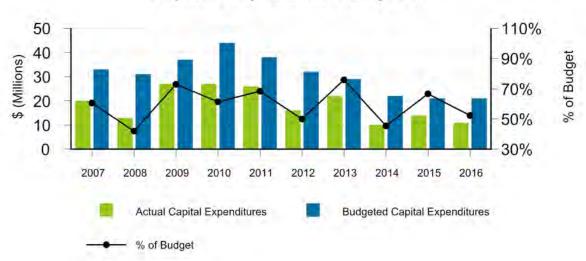
CAW goes a step further and utilizes a combination of methodologies for prioritizing underground pipelines for replacement. The most immediate are pipelines that are in the right-of-way of local streets or highways that are undergoing rehabilitation or widening and require that the existing utilities, 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 live but must be replaced regardless.

CAW staff has 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 assigns 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 not have multiple disturbances of local streets and landscapes, CAW staff also evaluates 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 2-inch 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 does not complete 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 2018 include rates, WPFs, grant proceeds, MWM bond, MWM surcharge revenue, developer funds, capital investment charges, US Army loan funds, and excess working capital (EWC).

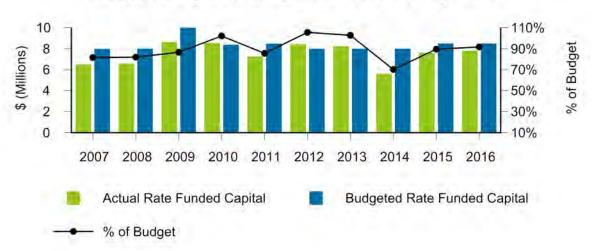
Total actual Capital Expenditures compared to budget for 2007 through 2016 are as follows:





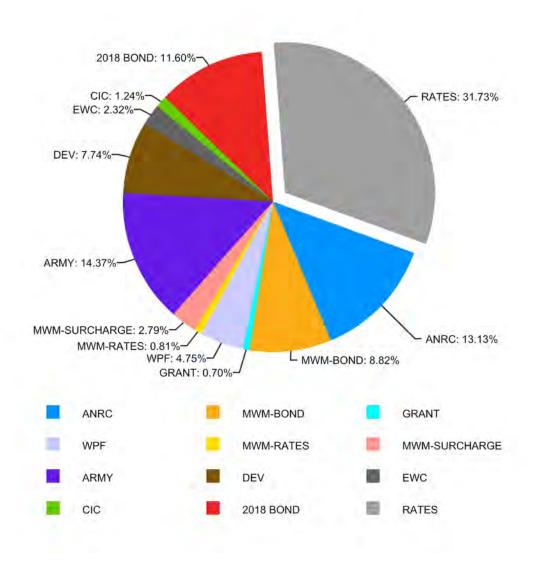
While overall actual capital spending sometimes varies greatly from budget due to delays in major relocation projects and unawarded grant projects, the Utility has historically executed over 90% of projects funded by rates over the last ten years:

#### Capital Expenditures from Rates by Year



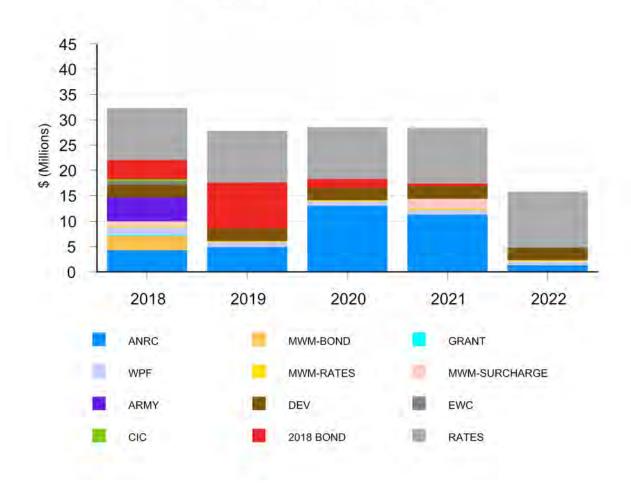
#### **2018 CAPITAL EXPENDITURES**

#### By FUNDING SOURCE



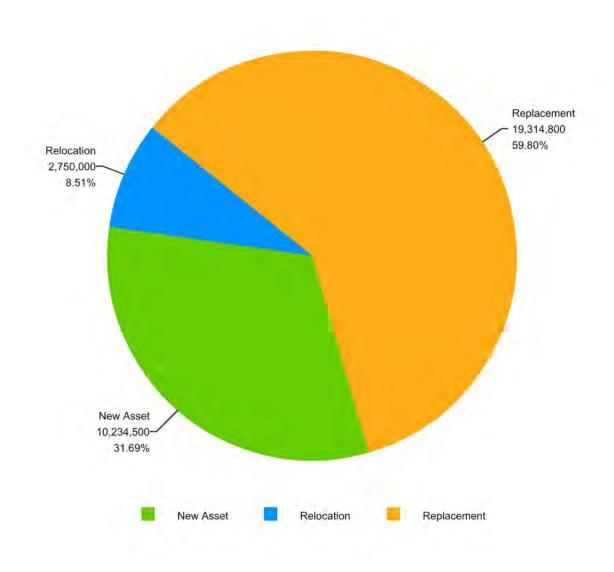
Rates account for approximately 31.7% of planned 2018 Capital Expenditures. Generally, watershed protection fees and grant proceeds are used to fund watershed management efforts, while rates are used to fund replacements, relocations, and rehabilitation projects.

# BUDGETED CAPITAL EXPENDITURES By FUNDING SOURCE



In 2015, CAW added \$2.9 million in EWC as a new funding source for relocations. Relocations are state and city projects that require CAW to move infrastructure. EWC is available as a result of operating results in 2010 – 2012. Spending from this initial allocation has left \$750,000 available for 2018 relocation projects. From 2018 through 2022, funding from rates will become an increasingly important source of funding.

# 2018 CAPITAL EXPENDITURES By PURPOSE

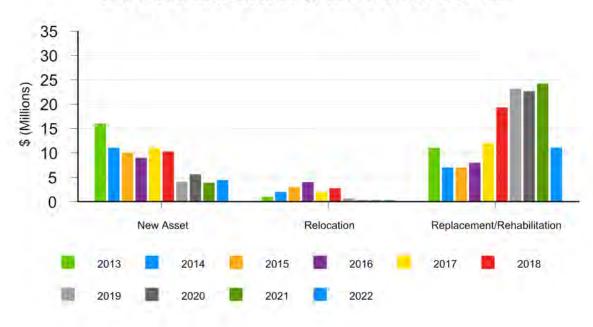


Of 2018 Capital Expenditures, 18.6% is budgeted for water rights and land acquisition within the new assets category above. Within the Replacement/Rehabilitation category, 13.1% of funding is related to bond funded rehabilitation work at Wilson Pump Station No. 1A and Ozark Point Plant, and 6.5% is related to replacing aging galvanized, asbestos cement, and cast iron water mains throughout the distribution system. The budgeted funding in the relocation category is all related to relocations required by city, county, and state roadway projects throughout the Utility service area.

#### **Annual Expenditure Trend**

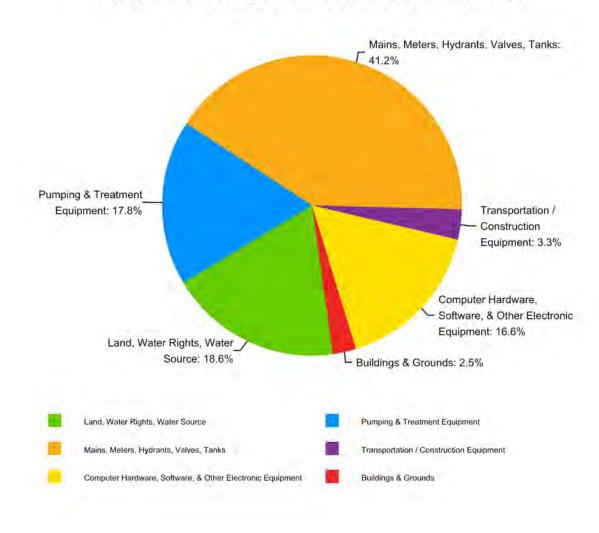
CAW anticipates completing approximately \$132.8 million in capital improvement projects from 2018-2022. During this five-year period, the largest year of capital expenditures is projected to be in 2019.





New asset expenditures, along with associated bond funds, have declined with the completion of disinfection byproduct (DBP) plant upgrades. A spike in Replacement/ Rehabilitation in 2018-2019 is driven by the replacement of the Utility's CIS system and by improvements at Ozark Point and Wilson pump station No. 1A.

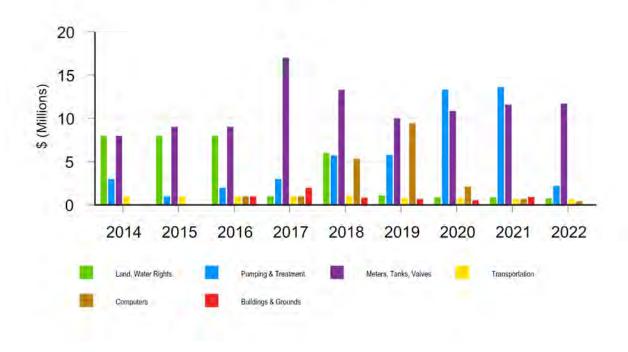
#### 2018 CAPITAL EXPENDITURES BY ASSET



Approximately 41.2% of 2018 Capital Expenditures are distribution system assets (mains, meters, fire hydrants, valves, and tanks). Water Quality expenditures (land, water rights, and water source) account for 18.6% of the total. Another 17.8% of 2018 Capital Expenditures include water treatment facility improvements (pumping and purification).

A departmental justification is provided for each project in the 2018 CIP, including impact on operations and maintenance expense, if any. All projects with a total cost exceeding \$500,000 over the next five years are detailed on pages 126-161.

# BUDGETED CAPITAL EXPENDITURES By ASSET



The Five-Year Plan includes details to expand and improve the water system on both sides of the Arkansas River from 2018 through 2022. Main replacements represent a significant portion of total capital expenditures from 2018 to 2022. Main replacements are of primary importance to the Utility and will absorb more of the funding sources available in the future.

#### **Unfunded Capital Projects**

There is currently approximately \$27.2 million in unfunded capital during the current five-year planning horizon. These projects include various transmission main upgrades included in the Utility Master Plan, a one million gallon storage tank, improvements to the Lake Maumelle dam, and approximately \$7.5 million of relocations related to the Arkansas Highway and Transportation Department (AHTD) 30 Crossing project. The 30 Crossing Project will expand and rebuild the Interstate 30 corridor through downtown Little Rock and North Little Rock. This state bond funded roadway project will also replace the existing Interstate 30 bridge across the Arkansas River. CAW currently has a 24-inch main on the existing bridge which will require relocation to the new bridge structure during the project. Once the funding requirements for these projects become more certain, a funding plan for these projects will be established. Options include funding out of excess revenues over the five-year planning period or a project specific bond issue. A detailed list of these unfunded projects is presented below.

Description	2018	2019	2020	2021	2022
Install Master Plan Transmission Mains - Various	_	_	1,000,000	1,000,000	1,000,000
Install 16-inch Parallel Feed Main to Tanks No. 14A/14B - Mabelvale	_	_	_	_	3,000,000
Improve Lake Maumelle Dam - Slope Remediation	_	_	_	4,000,000	4,000,000
Construct 1.0 MG Storage Tank No. 5B - Pulaski Heights	_	_	_	_	2,000,000
Relocate 12/8-inch Water Main- Hwy 10 Widening/Pleasant Ridge to Sam Peck - AHTD	_	_	_	500,000	_
Relocate 24-inch Transmission Main - Interstate 30 Ark. River Bridge Crossing - AHTD	_	200,000	2,300,000	500,000	_
Relocate 24/20/12/8-inch Mains - Interstate 30 Widening - AHTD	_	_	1,000,000	3,000,000	_
Relocate 12/8-inch Water Main - HWY 10 Widening/Pleasant Ridge to Sam Peck - REIMBURSEMENT	_	_	_	(300,000)	_
Relocate 12/8-inch Water Main - Hwy 10 Widening/Pleasant Ridge to Sam Peck - AHTD	_	_	400,000	_	_
Relocate 12-inch Water Main - So. University - 28th/Col. Glenn - LR	_	500,000	_	_	_
Relocate 24/20/12/8-inch Mains - Interstate 30 Widening - AHTD	_	500,000	_	_	_
Install 12-inch Water Main - Morgan/NLR Intermediate Pressure Zone Looping	_	650,000	_	_	_
Relocate 12/8/6-inch Water Main - Phase 3 - Kanis Rd/ Bowman to Gamble	_	700,000	_	_	_
Relocate 42/36/12/8-inch Water Main - Hwy 10 Widening/I-430 to Pleasant Ridge - AHTD	_	1,200,000	_	_	_
	\$ —	\$3,750,000	\$ 4,700,000	\$ 8,700,000	\$10,000,000

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#### CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2018)

DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
WATER PRODUCTION	]												
Construct Diesel Fuel Station Cover	5,000												5,000
Replace Generator Switchgear Control Node	23,000												23,000
Lake Maumelle Study to Determine Lime Feed	15,000												15,000
Replace Slope Mower	90,000												90,000
Replace Granular Activated Carbon (GAC) Media	200,000												200,000
Coat Pipe Gallery Piping - Wilson Plant	300,000												300,000
Drain, Clean and Place a Curtain for Baffling Tank No. 23	30,000												30,000
Repair Fence Around West Side of Compound - Wilson	47,000												47,000
Impact Study for Paralleling with Entergy	20,000												20,000
Construct Lime Machine Enclosure - Wilson	25,000												25,000
Pilot Plant Rehab	10,000												10,000
Install Railing Around Filters	20,000												20,000
Replace On-Line Turbidimeters - Wilson	95,000												95,000
Install RPZ for Plant Water	30,000												30,000
Replace SCADA Radios	85,000												85,000
Install Signs and Painting	10,000												10,000
Install HVAC For Control Room and Pump Controls	45,000												45,000
Replace Service Truck	30,000												30,000
Upgrade SCADA Plant PLC's	80,000												80,000

#### CAPITAL IMPROVEMENT PLAN – FUNDING SOURCES (2018)

DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
TOTAL	1,160,000	_	_		_	_	_	_	_	_	_		1,160,000
DISTRIBUTION	]												
Purchase Electric Motor Analyzer	6,000												6,000
Expand Concrete Pavement Area at CLW Yard	30,000												30,000
Replace Wilson Plant Waste Water Pump No. 3	18,000												18,000
Purchase Hydraulic Breaker Attachment - Hoe Ram	9,500												9,500
Install and Replace Hydrants	146,000												146,000
Install and Replace Valves	71,000												71,000
Install Meters - New Services	240,000												240,000
Install, Replace, and Relocate Mains	81,000												81,000
Pine Ridge Jockey Pump Replacement	5,800												5,800
Purchase ProCom Sol Smart Communicator Durabook	6,000												6,000
Purchase/Install Meters - Change Out Program	125,000												125,000
Purchase/Install Services (New, Replace, and Transfer)	1,350,000												1,350,000
Replace 2 Ton Dump Truck	92,000												92,000
Replace 3 Ton Dump Truck	120,000												120,000
Replace 3/4 Ton Service Truck(s)	68,000												68,000
Replace Air Piercing Tool (Mole Hog)	9,000												9,000
Replace CLW Warehouse Heaters	14,000												14,000

DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
-													
Replace 1/2 Ton Truck(s)	130,000												130,000
Replace One Ton Van	38,000												38,000
Replace Two Ton Crew Truck(s)	360,000												360,000
Install Schweitzer 710-5 Motor Manager Relay Intermediate Pump No. 6	5,800												5,800
Replace Soft Start Station 22 - Pump No. 4	9,000												9,000
Purchase Spare Control Transformer Lake Maumelle Control Room	22,000												22,000
Purchase Spare Lake Maumelle Generator Main Breaker	17,000												17,000
Upgrade / Replace Access and Gates at MAC	10,000												10,000
Replace Wilson Plant Alum Flow Meter	22,000												22,000
Replace Wilson Plant Influent Valve No. 1 Actuator	9,000												9,000
Rehab Wilson Plant West Filter Gallery Roof	36,000												36,000
Install and Replace Hydrants - Maumelle	6,000					6,000							
Install and Replace Valves - Maumelle	5,800					5,800							
Install Meters for New Services - Maumelle	8,000					8,000							
Install, Replace, and Relocate Mains - Maumelle	8,000					8,000							
Purchase/Install Services (New, Replace, and Transfer) - Maumelle	200,000					200,000							
Maumelle Meter Change Out Program - Maumelle Meters to CAW Meters	900,000						900,000						
Purchase 3/4 Ton Service Truck - Maumelle	32,500					32,500							

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DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
Arc Flash Hazard Analysis Remodel House - Lake Winona	52,000 65,000												52,000 65,000
TOTAL	4,327,400	_	_	_		260,300	900,000			_	_	_	3,167,100
CUSTOMER SERVICE	]												
Replace Meter Reader Trucks	36,000												36,000
Replace Lobby Furniture - JTH	6,700												6,700
Replace Customer Service Van	22,000												22,000
Purchase Ergonomic Sit Stand Desks	11,000												11,000
Postage Meter	10,000												10,000
TOTAL	85,700	_	_	_	_	_	_	_	_	_	_	_	85,700
ADMINISTRATION	]												
Replace Confined Space Gas Monitors	25,000												25,000
Replace Truck	25,000												25,000
Purchase Equipment for CIS Team Area	25,000												25,000
Purchase Quench Buggy	55,000												55,000
TOTAL	130,000	_	_	_	_	_	_	_	_	_	_	_	130,000
WATER QUALITY	)												

10,000

Aerial Photography - Watershed

10,000

DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
Forest Restoration and Enhancement	50,000				50,000								
Improve Buildings - WGF	10,000				10,000								
Improve Forest Roads	50,000				50,000								
Install Bridge Access to former WGF	400,000				400,000								
Install Dedicated WQ Sampling Stations	12,000												12,000
Purchase and Implement LIMS system	100,000												100,000
Purchase Conservation Easements	300,000				300,000								
Purchase Property	500,000				500,000								
Replace 1/2 Ton Truck (2018 528)	30,000												30,000
Replace Tractor for Watershed Needs	30,000												30,000
Restore River, Floodplain and Wetland - WGF	100,000				100,000								
Restore Hydrologic Flow- USACE Sec. 206 Project	350,000			225,000	125,000								
TOTAL	1,942,000	_	_	225,000	1,535,000	_	_	_	_	_	_	_	182,000
INFORMATION SERVICES	)												
Purchase - Online Performance Evaluation Software	30,000												30,000
Purchase Customer Service Chat Software	35,000												35,000
Purchase - Online Employee Application Software	30,000												30,000
Purchase ITMP Tasks/Equipment	25,000												25,000
Conduct Network PIN Test	15,000												15,000

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DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
Replace Network Firewalls	30,000												30,000
Replace Servers	85,000												85,000
Replace Customer Information System	4,500,000											3,748,000	752,000
Expand Storage Area Network (SAN)	130,000												130,000
Upgrade Operating Systems on Servers	20,000												20,000
Upgrade VM Ware Host	50,000												50,000
TOTAL	4,950,000	_	_	_	_	_	_	_	_	_	_	3,748,000	1,202,000

## **ENGINEERING**

Improve Ozark Point Plant - Engineering Design	2,000,000	2,000,000		
Improve Pump Station No. 1A - Construction Engineering Phase 1 - Wilson Plant	96,000	96,000		
Improve Pump Station No. 1A - Construction Phase 1 - Wilson Plant	2,145,000	2,145,000		
Construct Manitou Booster Pump Station Improvements - Maumelle Job No. 07606A	355,000		355,000	
Construct Structural Repair of Tank No.1 - Maumelle Job No. 07612	400,000		400,000	
Install Distribution System Pressure Improvements - Maumelle Job No. 07603	75,000		75,000	
Install Pump in Wilson High Service Pump Station No. 1B - Maumelle Job No. 07605 CARRYOVER	225,000		225,000	
Replace Master Meters - CARRYOVER	100,000			100,000
Developer Funded Capital	2,500,000		2,500,000	

DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
Purchase DeGray Lake Water Rights	4,640,000							4,640,000					
Relocate 12/8/6-inch Water Main - Phase 2 - Kanis Rd/Embassy Suites to Bowman	200,000												200,000
Relocate 24-inch Transmission Main - Maryland Avenue - Sherwood	1,400,000									750,000			650,000
Relocate 8-inch and 12-inch Water Mains - Counts Massie/Crystal Hill Rd - Proj No. 4037	400,000										400,000		
Relocate Water Mains - Various Known/Unknown Locations - State/ County/City Improvements	750,000												750,000
Install 20-inch Swing Connection - Gravity System - Chicot Rd/So. University	75,000												75,000
Install 30-inch Transmission Main - Maumelle - Construction Job No. 07604 CARRYOVER	500,000		500,000										
Install 30-inch Transmission Main - Maumelle - Engineering Job No. 07604B CARRYOVER	25,000		25,000										
Developer Participation - New Mains	50,000												50,000
Install 8-inch Main - W Baseline - Interconnection W Markham and Mabelvale - Proj No. 4092 CARRYOVER	350,000												350,000
Replace Distribution Mains Phase 1 - Maumelle Job No. 07610 CARRYOVER	580,000		580,000										
Replace Distribution Mains Phase 2 - Maumelle Job No. 07610 CARRYOVER	690,000		690,000										
Replace Water Mains - Galv, AC, CI - Systemwide	2,097,200												2,097,200
Professional Services - Engineering	5,000												5,000
Professional Services - Land Surveying	5,000												5,000

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DESCRIPTION	TOTAL	ANRC	MWM- BOND	GRANT	WPF	MWM - RATES	MWM - SURCHARGE	ARMY	DEV	EWC	CIC	2018 BOND	Rates
Professional Services - Property Appraisals	5,000					,	,	,					5,000
Purchase GPS Units	10,000												10,000
Replace Vehicle(s) - Engineering	26,000												26,000
TOTAL	19,704,200	4,241,000	2,850,000	_	_	_	_	4,640,000	2,500,000	750,000	400,000	_	4,323,200
GRAND TOTAL	32,299,300	4,241,000	2,850,000	225,000	1,535,000	260,300	900,000	4,640,000	2,500,000	750,000	400,000	3,748,000	10,250,000

ANRC	Arkansas Natural Resources Commission
MWM - BOND	MWM 2016 Bond
GRANT	Grant Funding
WPF	Watershed Protection Fees
MWM-RATES	Rates from MWM Accounts
MWM - SURCHARGE	MWM Surcharge Revenue
ARMY	Department of U.S. Army
DEV	Developer Funding Capital
EWC	Excess Working Capital
CIC	Capital Investment Charges
2018 BOND	Revenue Bond to be Issued in 2018
Rates	Rates

DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
WATER PRODUCTION	1	
Construct Diesel Fuel Station Cover	5,000	0
Construct enclosure for diesel fuel fill station.		
Replace Generator Switchgear Control Node	23,000	0
Replace current unit that is partially operational.		
Lake Maumelle Study to Determine Lime Feed	15,000	0
Study to determine if line needs to be fed to limit corrosiveness of the water on pipeline.		
Replace Slope Mower	90,000	0
Replace 20 year old slope mower for maintaining Lake Maumelle dam.		
Replace GAC Media	200,000	0
This is the routine replacement of granulated activated carbon filters at the Ozark Plant.		
Coat Pipe Gallery Piping - Wilson Plant	300,000	0
Piping is corroding and in need of coating to maintain its integrity and extend useful life.		
Drain, Clean and Place a Curtain for Baffling Tank No. 23	30,000	0
Removal of collapsed wall and placement of baffle.		
Repair Fence Around West Side of Compound - Wilson	47,000	0
Repair and heighten to ADH recommended standards.		
Impact Study for Paralleling with Entergy	20,000	0
Study required by Entergy to determine feasibility of improvements required to switch from grid to generator power without interruption of plant operations.		
Construct Lime Machine Enclosure - Wilson	25,000	0
Installation provides safety and dust barrier around lime machines.		
Pilot Plant Rehab	10,000	0
Replace existing pilot plant with one working filter for tours and educational training.		
Install Railing Around Filters	20,000	0
Install railing for filters to allow proper cleaning. Currently filters can not be properly cleaned due to safety concerns.		

DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Dealess On Line Tradition days Wiless	95,000	0
Replace On-Line Turbidimeters - Wilson  Current units are failing and required for compliance with reporting and use in partnership for cafe water data.	93,000	U
Current units are failing and required for compliance with reporting and use in partnership for safe water data.	30,000	0
Install RPZ for Plant Water	30,000	U
Install RPZ as required by ADH and CAW cross connection program.	05.000	0
Replace SCADA Radios	85,000	0
Replace legacy SCADA system radios.		
Install Signs and Painting	10,000	0
Create and install a sign at the Wilson Plant to detail the part Federal funding played in facility construction. Paint areas in need of repair around the plant, landscape and install a flag pole at the Pleasant Valley entrance.		
Install HVAC For Control Room and Pump Controls	45,000	0
Present units are failing and required to keep drives for all pump motors cool.		
Replace Service Truck	30,000	0
Replace current service truck due to excessive mileage and maintenance costs.		
Upgrade SCADA Plant PLC's	80,000	0
Upgrade legacy PLCs to new units compatible with new SCADA system.		
DISTRIBUTION	٦	
Purchase Electric Motor Analyzer	6,000	0
All Test Pro motor analyzer is a replacement of our outdated existing analyzer. This is a critical part of electric motor preventive maintenance.		
Expand Concrete Pavement Area at CLW Yard	30,000	0
Install concrete in yard area around fire hydrants.		
Replace Wilson Plant Waste Water Pump No. 3	18,000	0
The project consists of replacing the current waste water pump that is beyond its useful life.		
Purchase Hydraulic Breaker Attachment - Hoe Ram	9,500	0
Purchase a new hydraulic breaker attachment (hoe-ram) that is used in both new construction and repairs. Currently we only have one hoe-ram and it is toward the end of it's life.	:	

DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Install and Replace Hydrants	146,000	0
Install and replace hydrants to maintain fire protection levels and water quality by means of flushing.		
Install and Replace Valves	71,000	0
Install and replace valves within the distribution system.		
Install Meters - New Services	240,000	0
Install meters for new services requested for new construction and infrastructure additions.		
Install, Replace, and Relocate Mains	81,000	0
This project reflects the capital portion of main installation, replacement, or transfer performed by CAW distribution crews.		
Pine Ridge Jockey Pump Replacement	5,800	0
Upgrade Pine Ridge Jockey pump as system is outgrowing the existing pump and can't keep up.		
Purchase ProCom Sol Smart Communicator Durabook	6,000	0
Purchase ProCom Sol Smart Communicator Durabook R to replace existing Hart communicators that are obsolete and do not communicate with new transmitters.		
Purchase/Install Meters - Change Out Program	125,000	0
Replacement of water meters that have been in service 16 years or longer. Enhances water metering by removing slow meters that impact revenues.		
Purchase/Install Services (New, Replace, and Transfer)	1,350,000	0
Cost associated with installation of new services as well as replacement, and transfers.		
Replace 2 Ton Dump Truck	92,000	0
Replace dump truck due to excessive mileage and maintenance costs (2018 - truck 295).		
Replace 3 Ton Dump Truck	120,000	0
Replace dump truck due to excessive mileage and maintenance costs (2018 - truck 210).		
Replace 3/4 Ton Service Truck(s) (2018 - 2 trucks - 446, 448)	68,000	0
Replace two truck(s) due to excessive mileage and maintenance cost (2018 - 2 trucks - 446, 448).		
Replace Air Piercing Tool (Mole Hog)	9,000	0
Replace mole hog needed to assist in 2-inch and 3-inch main installations as well as service replacements and new service installs.		

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DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Replace CLW Warehouse Heaters	14,000	0
Replace 6 warehouse heaters; currently only 2 of the 6 are working and those 2 are beyond useful life running on parts from the other 4.		
Replace 1/2 Ton Truck(s)	130,000	0
Replace 1/2 Ton Service Truck(s) due to excessive mileage and maintenance costs.		
Replace One Ton Van Replace 1 Ton Van(s) due to excessive mileage and maintenance costs.	38,000	0
Replace Two Ton Crew Truck(s) Replace 2 Ton Crew Truck(s) due to excessive mileage and maintenance costs.	360,000	0
Install Schweitzer 710-5 Motor Manager Relay Intermediate Pump No. 6	5,800	0
Installation of Schweitzer relay to support VFD monitoring. No motor monitoring now.		
Replace Soft Start Station 22 - Pump No. 4	9,000	0
Replace soft start station 22 pump No. 4, this is last of four starters to be replace for operational stability.		
Purchase Spare Control Transformer Lake Maumelle Control Room	22,000	0
This transformer is control power for pumping equipment. A spare transformer is required for operational stability.		
Purchase Spare Lake Maumelle Generator Main Breaker	17,000	0
Purchase a spare main breaker so that failure of existing breaker will not prevent long term loss of ability to transfer from utility powe to generator power.	r	
Upgrade / Replace Access and Gates at MAC	10,000	0
Install cameras and up-grade communications software on gates at MAC.		
Replace Wilson Plant Alum Flow Meter	22,000	0
Replace existing 4 alum flow meters that are 20 years old and hold 1 for back up.		
Replace Wilson Plant Influent Valve No. 1 Actuator	9,000	0
Replace Wilson plant influent valve actuator, the existing actuator is obsolete (over 50 years old) and difficult to operate.		
Rehab Wilson Plant West Filter Gallery Roof	36,000	0
Wilson west filter gallery roof rehabilitation, current roof is failing and in need of repair.		

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DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Install and Replace Hydrants - Maumelle	6,000	0
Install and replace hydrants to maintain fire protection levels and water quality.		
Install and Replace Valves - Maumelle	5,800	0
Install and replace valves within the distribution system.		
Install Meters for New Services - Maumelle	8,000	0
This project is the installation of water meters for new services requested for new construction and infrastructure additions.		
Install, Replace, and Relocate Mains - Maumelle	8,000	0
This project reflects the capital portion of main installation, replacement, or transfer performed by CAW distribution crews.		
Purchase/Install Services (New, Replace, and Transfer) - Maumelle	200,000	0
Maumelle cost associated with installation of new services as well as replacement and transfers.		
Maumelle Meter Change Out Program - Maumelle Meters to CAW Meters	900,000	0
Replacement of approximately 10,500 meters in the Maumelle as a result of the Maumelle merger .		
Purchase 3/4 Ton Service Truck - Maumelle	32,500	0
Purchase one new truck due to maintenance staff added with Maumelle merger.		
Arc Flash Hazard Analysis	52,000	0
Study and remove arc flash hazard.		
Remodel House - Lake Winona	65,000	0
Current home was built with the original construction of Lake Winona in the 1930's, this house serves as the care taker's home and is in need of delayed maintenance and updating.		
CUSTOMER SERVICE	]	
Replace Meter Reader Trucks	36,000	0
Replace Meter Reader Truck(s) due to excessive mileage and maintenance costs.		
Replace Lobby Furniture - JTH	6,700	0
Replace lobby furniture due to normal wear and tear.		
Replace Customer Service Van	22,000	0
Replace van(s) due to excessive mileage and maintenance costs.		

DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Purchase Ergonomic Sit Stand Desks	11,000	0
Purchase 20 Varidesk corner sit/stand adjustable work stations.	,	Ţ.
Postage Meter	10,000	0
The current postage meter is at end of life and is in immediate need of replacement.		
ADMINISTRATION	]	
Replace Confined Space Gas Monitors	25,000	0
Replace 10 confined space gas monitors.		
Replace Truck	25,000	0
Replace 1/2 ton maintenance truck No. 296.		
Purchase Equipment for CIS Team Area	25,000	0
Purchase equipment for newly formed CIS implementation team.		
Purchase Quench Buggy	55,000	5,000
Trailer supplies 300 gallons of water through bottle filling stations and can be used for education and outreach events and emergency outage situations.		
WATER QUALITY	)	
Aerial Photography - Watershed	10,000	0
These are contingency funds for aerial fly overs of the watersheds in case emergency events occur to accumulate additional surveillance.		
Forest Restoration and Enhancement	50,000	0
Continuation of obligations for land/forest improvements associated with the Forest Legacy purchase of the former WGF.		
Improve Buildings - WGF	10,000	0
The former WGF has outbuildings that need electrical, physical and safety repairs. These assets were acquired with the Forest Legacy purchase.		
Improve Forest Roads	50,000	0
Unmanaged roads significantly impact watershed and water quality. Management of these are critical for water quality improvement.		

DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Install Bridge Access to former WGF	400,000	0
Provide access over the Maumelle River when Hwy 10 low water crossing is removed, CAW will need to access for continued use and management.	l	
Install Dedicated WQ Sampling Stations	12,000	0
Dedicated sampling stations are a continuation of a multi-year project to replace sub-standard compliance sampling locations in the distribution system.		
Purchase and Implement LIMS system	100,000	0
Select and implement a laboratory information management system in laboratory. Project will improve WQ data mgmt and reporting functions.		
Purchase Conservation Easements	300,000	3,000
Continuation of land acquisition through conservation easements is consistent with the 2007 WMP and will assist in full implementation of that plan.		
Purchase Property	500,000	2,500
Continued land purchases are consistent with the 2007 WMP recommendations and will assist in the full implementation of the plan.		
Replace 1/2 Ton Truck (2018 528)	30,000	0
Replace truck due to excessive mileage and maintenance cost. Truck is designated for field technicians.		
Replace Tractor for Watershed Needs	30,000	0
This is to replace a MWM transfer asset that has exceeded its useful life and has increased maintenance costs, as well as staff safety concerns.		
Restore River, Floodplain and Wetland - WGF	100,000	2,000
Project is designed to improve hydrological function to riparian areas of the WGF in compliance with Forest Legacy purchase obligations.		
Restore Hydrologic Flow- USACE Sec. 206 Project	350,000	0
The project will aim to restore hydrological flow of the Maumelle River at the former WGF to historic, pre-farmed conditions.		
INFORMATION SERVICES		
Purchase - Online Performance Evaluation Software	30,000	0
This project would involve staff procuring an automated system to greatly streamline the current employee performance evaluation process.		

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DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Purchase Customer Service Chat Software	35,000	0
This project will add the ability for customer service reps to correspond with customers via an online tool.		
Purchase - Online Employee Application Software	30,000	0
This project would involve staff procuring an automated system to greatly streamline the current employee application process.		
Purchase ITMP Tasks/Equipment	25,000	0
This is money budgeted for results of the ITMP.		
Conduct Network PIN Test	15,000	1,500
Test network for penetration vulnerability.		
Replace Network Firewalls	30,000	3,000
Replace older firewalls that protect network from outside threats.		
Replace Servers	85,000	5,000
Annual server replacement plus replacing GIS and Cityworks servers.		
Replace Customer Information System	4,500,000	0
Replace current billing system with ITMP recommendation.		
Expand Storage Area Network (SAN)	130,000	2,000
Expand the current SAN storage and add faster disk drives.		
Upgrade Operating Systems on Servers	20,000	1,500
Replace older OS on servers based on maintenance.		
Upgrade VM Ware Host	50,000	5,000
Update software that allows the VM Servers.		
ENGINEERING		
Improve Ozark Point Plant - Engineering Design	2,000,000	0

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project; construction plans.

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Engineering Design of the recommended Ozark Point WTP Rehabilitation and Improvements; detailed design of the improvements

DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Improve Pump Station No. 1A - Construction Engineering Phase 1 - Wilson Plant	96,000	0
Phase 1 construction engineering services of recommended pump, structure, and electrical improvements to the existing Wilson Pump Station No. 1A.		
Improve Pump Station No. 1A - Construction Phase 1 - Wilson Plant	2,145,000	0
Phase 1 construction of recommended pump, structure, and electrical improvements to the existing Wilson Pump Station No. 1A.		
Construct Manitou Booster Pump Station Improvements - Maumelle Job No. 07606A	355,000	0
Construct improvements to the Manitou booster pump station in Maumelle as recommend in the merger study.		
Construct Structural Repair of Tank No.1 - Maumelle Job No. 07612	400,000	0
Construct structural repairs and improvements to Maumelle tank No. 1 as recommended by the merger study.		
Install Distribution System Pressure Improvements - Maumelle Job No. 07603	75,000	0
Install certain distribution improvements to improve pressure to the area in the vicinity of Leisurewood Ln in accordance with the Maumelle merger.		
Install Pump in Wilson High Service Pump Station No. 1B - Maumelle Job No. 07605 CARRYOVER	225,000	0
Install new pump and motor in the Wilson high service Pump Station No. 1B for the additional capacity to serve the City of Maumelle		
Replace Master Meters - CARRYOVER	100,000	0
Replacement of large diameter, older master meters due to age, wear, and obsolescence of the meters.		
Developer Funded Capital	2,500,000	0
This is developer contributed capital improvements to CAW water system as a result of new developments in the CAW service area.		
Purchase DeGray Lake Water Rights	4,640,000	(88,000)
Purchase 100 MGD DeGray Lake water rights from the US Army Core of Engineers.		
Relocate 12/8/6-inch Water Main - Phase 2 - Kanis Rd/Embassy Suites to Bowman	200,000	0
Existing main relocation and lowering along Kanis Rd between Embassy Suites Dr and Bowman Rd for City of Little Rock street improvements.		
Relocate 24-inch Transmission Main - Maryland Avenue - Sherwood	1,400,000	0
Relocation of 4,400 LF of 24-inch transmission main due to City of Sherwood street and drainage improvements.		
Relocate 8-inch and 12-inch Water Mains - Counts Massie/Crystal Hill Rd - Proj No. 4037	400,000	0
Relocate of 4,145 LF of 8-inch and 12-inch water main for the widening of Counts Massie and Crystal Hill Rds; City of Maumelle street improvements.		

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DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Relocate Water Mains - Various Known/Unknown Locations - State/County/City Improvements	750,000	0
Relocation of water mains for known and unknown road and drainage improvements (city/county/state improvements).	750,000	O
Install 20-inch Swing Connection - Gravity System - Chicot Rd/So. University	75,000	0
Install a 20" swing connection on the Gravity System, Chicot and University, to improve suction flow to Pump Station No. 14.	,	
Install 30-inch Transmission Main - Maumelle - Construction Job No. 07604 CARRYOVER	500,000	0
Install approx. 5.5 miles of 30-inch transmission main to serve the City of Maumelle.	,	
Install 30-inch Transmission Main - Maumelle - Engineering Job No. 07604B CARRYOVER	25,000	0
Engineering Services for the installation of the Maumelle Transmission Main.		
Developer Participation - New Mains	50,000	0
Extension and/or up-sizing of new mains by CAW in cooperation with developer new water main installation; provides for future extensions and growth.		
Install 8-inch Main - W Baseline - Interconnection W Markham and Mabelvale - Proj No. 4092 CARRYOVER	350,000	0
Install approx. 2,100 LF of 8-inch water main along W Baseline Rd at Crystal Valley Lateral to provide additional capacity and redundancy to both systems.		
Replace Distribution Mains Phase 1 - Maumelle Job No. 07610 CARRYOVER	580,000	0
Replace various distribution mains inside the City of Maumelle as per the merger study; Phase 1 of replacements.		
Replace Distribution Mains Phase 2 - Maumelle Job No. 07610 CARRYOVER	690,000	0
Replace various distribution mains inside the City of Maumelle as per the merger study; Phase 2 of replacements.		
Replace Water Mains - Galv, AC, CI - Systemwide	2,097,200	0
Replace old, high maintenance galvanized, asbestos-cement, and cast iron pipe experiencing numerous leaks and breaks.		
Professional Services - Engineering	5,000	0
Professional design and consultation as required on various projects.		
Professional Services - Land Surveying	5,000	0
Professional land surveying required for the acquisition of new land, easements, and maintenance of property rights on existing land and easement holdings.		
Professional Services - Property Appraisals	5,000	0
Professional appraisal services required for the acquisition of new land and easements.		
Purchase GPS Units	10,000	0

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DESCRIPTION AND JUSTIFICATION	COST	O&M IMPACT
Purchase of GPS unit - Engineering Department.		
Replace Vehicle(s) - Engineering	26,000	0
Replace vehicle(s) due to excessive mileage and maintenance costs.		

Nature PRODUCTION   5,000	DESCRIPTION	2018	2019	2020	2021	2022
Replace Generator Switchgear Control Node         23.000           Lake Maumelle Study to Determine Lime Feed         15,000           Replace Slope Mower         90,000           Replace GAC Media         200,000         260	WATER PRODUCTION					
Lake Maumelle Study to Determine Lime Feed         15,000           Replace Slope Mower         90,000           Replace GAC Media         200,000         260,0	Construct Diesel Fuel Station Cover	5,000				
Replace Stope Mower         90,000         260,000	Replace Generator Switchgear Control Node	23,000				
Replace GAC Mediai         200,000         260,000	Lake Maumelle Study to Determine Lime Feed	15,000				
Replace On-Line Turbidimeters - Wilson         95,000           Coat Pipe Gallery Piping - Wilson Plant         300,000         200,000           Drain, Clean and Place a Curtain for Baffling Tank No. 23         30,000         47,000           Repair Fence Around West Side of Compound - Wilson         47,000         47,000           Impact Study for Paralleling with Entergy         20,000         50,000           Construct Lime Machine Enclosure - Wilson         25,000         50,000           Pilot Plant Rehab         10,000         50,000           Install Railing Around Filters         30,000         50,000           Install RPZ for Plant Water         30,000         75,000           Replace SCADA Radios         85,000         75,000           Install NAC For Control Room and Pump Controls         45,000           Replace Service Truck         30,000           Upgrade SCADA Plant PLC's         80,000           Replace On-Line Turbidimeters - Ozark         55,000         50,000         50,000           Implement Tank Management System         50,000         50,000         50,000         50,000           Replace Switchgear PLCs LMPS         120,000         50,000         50,000         50,000           Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals         27,000 </td <td>Replace Slope Mower</td> <td>90,000</td> <td></td> <td></td> <td></td> <td></td>	Replace Slope Mower	90,000				
Coat Pipe Gallery Piping - Wilson Plant         300,000         200,000           Drain, Clean and Place a Curtain for Baffling Tank No. 23         30,000         47,000           Repair Fence Around West Side of Compound - Wilson         47,000         47,000           Impact Study for Paralleling with Entergy         20,000         47,000           Construct Lime Machine Enclosure - Wilson         25,000         47,000           Pilot Plant Rehab         10,000         47,000           Install Railing Around Filters         20,000         75,000           Install Rey for Plant Water         30,000         75,000           Replace SCADA Radios         85,000         75,000           Install HVAC For Control Room and Pump Controls         45,000         45,000           Replace Service Truck         30,000         50,000         50,000           Replace SCADA Plant PLC's         80,000         50,000         50,000         50,000           Replace On-Line Turbidimeters - Ozark         55,000         50,000         50,000         50,000           Replace Switchgear PLCs LMPS         120,000         50,000         50,000         50,000           Replace Switchgear PLCs Wilson         120,000         50,000         50,000	Replace GAC Media	200,000	260,000	260,000	260,000	260,000
Drain, Clean and Place a Curtain for Baffling Tank No. 23         30,000           Repair Fence Around West Side of Compound - Wilson         47,000           Impact Study for Paralleling with Entergy         20,000           Construct Lime Machine Enclosure - Wilson         25,000           Pilot Plant Rehab         10,000           Install Railing Around Filters         20,000           Install RPZ for Plant Water         30,000           Replace SCADA Radios         85,000         75,000           Install INVAC For Control Room and Pump Controls         45,000         45,000           Replace Service Truck         30,000         50,000         50,000           Replace Con-Line Turbidimeters - Ozark         55,000         50,000         50,000           Replace Switchgear PLCs LMPS         120,000         50,000         50,000           Replace Switchgear PLCs Wilson         120,000         50,000         50,000           Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals         27,000         50,000         50,000	Replace On-Line Turbidimeters - Wilson	95,000				
Repair Fence Around West Side of Compound - Wilson         47,000           Impact Study for Paralleling with Entergy         20,000           Construct Lime Machine Enclosure - Wilson         25,000           Pilot Plant Rehab         10,000           Install Reling Around Filters         20,000           Install RPZ for Plant Water         30,000           Replace SCADA Radios         85,000         75,000           Install HVAC For Control Room and Pump Controls         45,000           Replace Service Truck         30,000           Upgrade SCADA Plant PLC's         80,000           Replace On-Line Turbidimeters - Ozark         55,000           Implement Tank Management System         50,000         50,000         50,000           Replace Switchgear PLCs Wilson         120,000         50,000         50,000           Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals         27,000         50,000         50,000	Coat Pipe Gallery Piping - Wilson Plant	300,000	200,000			
Impact Study for Paralleling with Entergy         20,000           Construct Lime Machine Enclosure - Wilson         25,000           Pilot Plant Rehab         10,000           Install Railing Around Filters         20,000           Install RPZ for Plant Water         30,000           Replace SCADA Radios         85,000         75,000           Install Signs and Painting         10,000           Install HVAC For Control Room and Pump Controls         45,000           Replace Service Truck         30,000           Upgrade SCADA Plant PLC's         80,000           Replace On-Line Turbidimeters - Ozark         55,000         50,000         50,000           Implement Tank Management System         50,000         50,000         50,000         50,000           Replace Switchgear PLCs Wilson         120,000         50,000         50,000         50,000           Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals         27,000         50,000         50,000	Drain, Clean and Place a Curtain for Baffling Tank No. 23	30,000				
Construct Lime Machine Enclosure - Wilson   25,000	Repair Fence Around West Side of Compound - Wilson	47,000				
Pilot Plant Rehab   10,000     Install Railing Around Filters   20,000     Install RPZ for Plant Water   30,000     Replace SCADA Radios   85,000   75,000     Install Signs and Painting   10,000     Install HVAC For Control Room and Pump Controls   45,000     Replace Service Truck   30,000     Upgrade SCADA Plant PLC's   80,000     Replace On-Line Turbidimeters - Ozark   55,000   50,000   50,000     Replace Switchgear PLCs LMPS   120,000     Replace Switchgear PLCs Wilson   120,000     Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals   27,000     Install Railing Around Filters   20,000   20,000     Install RPZ for Plant Water   2	Impact Study for Paralleling with Entergy	20,000				
Install Railing Around Filters       20,000         Install RPZ for Plant Water       30,000         Replace SCADA Radios       85,000       75,000         Install Signs and Painting       10,000         Install HVAC For Control Room and Pump Controls       45,000         Replace Service Truck       30,000         Upgrade SCADA Plant PLC's       80,000         Replace On-Line Turbidimeters - Ozark       55,000         Implement Tank Management System       50,000       50,000       50,000         Replace Switchgear PLCs LMPS       120,000         Replace Switchgear PLCs Wilson       27,000       50,000	Construct Lime Machine Enclosure - Wilson	25,000				
Install RPZ for Plant Water       30,000         Replace SCADA Radios       85,000       75,000         Install Signs and Painting       10,000         Install HVAC For Control Room and Pump Controls       45,000         Replace Service Truck       30,000         Upgrade SCADA Plant PLC's       80,000         Replace On-Line Turbidimeters - Ozark       55,000         Implement Tank Management System       50,000       50,000       50,000         Replace Switchgear PLCs LMPS       120,000         Replace Switchgear PLCs Wilson       27,000       27,000	Pilot Plant Rehab	10,000				
Replace SCADA Radios       85,000       75,000         Install Signs and Painting       10,000         Install HVAC For Control Room and Pump Controls       45,000         Replace Service Truck       30,000         Upgrade SCADA Plant PLC's       80,000         Replace On-Line Turbidimeters - Ozark       55,000         Implement Tank Management System       50,000       50,000       50,000         Replace Switchgear PLCs LMPS       120,000         Replace Switchgear PLCs Wilson       27,000	Install Railing Around Filters	20,000				
Install Signs and Painting 10,000 Install HVAC For Control Room and Pump Controls 45,000 Replace Service Truck 30,000 Upgrade SCADA Plant PLC's 80,000 Replace On-Line Turbidimeters - Ozark 55,000 Implement Tank Management System 50,000 50,000 50,000 50,000 Replace Switchgear PLCs LMPS 120,000 Replace Switchgear PLCs Wilson 120,000 Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals	Install RPZ for Plant Water	30,000				
Install HVAC For Control Room and Pump Controls  Replace Service Truck  30,000  Upgrade SCADA Plant PLC's  80,000  Replace On-Line Turbidimeters - Ozark  Implement Tank Management System  55,000  Replace Switchgear PLCs LMPS  Replace Switchgear PLCs Wilson  Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals	Replace SCADA Radios	85,000	75,000			
Replace Service Truck 30,000  Upgrade SCADA Plant PLC's 80,000  Replace On-Line Turbidimeters - Ozark 55,000  Implement Tank Management System 50,000 50,000 50,000 50,000  Replace Switchgear PLCs LMPS 120,000  Replace Switchgear PLCs Wilson 120,000  Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals	Install Signs and Painting	10,000				
Upgrade SCADA Plant PLC's  Replace On-Line Turbidimeters - Ozark  Implement Tank Management System  50,000  Replace Switchgear PLCs LMPS  Replace Switchgear PLCs Wilson  Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals	Install HVAC For Control Room and Pump Controls	45,000				
Replace On-Line Turbidimeters - Ozark  Implement Tank Management System  50,000  50,000  50,000  50,000  50,000  50,000  120,000  Replace Switchgear PLCs Uhlson  Replace Switchgear PLCs Wilson  Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals	Replace Service Truck	30,000				
Implement Tank Management System50,00050,00050,00050,000Replace Switchgear PLCs LMPS120,000Replace Switchgear PLCs Wilson120,000Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals27,000	Upgrade SCADA Plant PLC's	80,000				
Replace Switchgear PLCs LMPS  Replace Switchgear PLCs Wilson  Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals  120,000  27,000	Replace On-Line Turbidimeters - Ozark		55,000			
Replace Switchgear PLCs Wilson 120,000 Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals 27,000	Implement Tank Management System		50,000	50,000	50,000	50,000
Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals  27,000	Replace Switchgear PLCs LMPS			120,000		
	Replace Switchgear PLCs Wilson			120,000		
Replace SCADA System PLCs 150,000 150,000	Replace Eight CL-17's, On-Line Monitors of Chlorine Residuals			27,000		
	Replace SCADA System PLCs			150,000	150,000	

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DESCRIPTION	2018	2019	2020	2021	2022
TOTAL	1,160,000	640,000	727,000	460,000	310,000
DISTRIBUTION					
Purchase Electric Motor Analyzer	6,000				
Expand Concrete Pavement Area at CLW Yard	30,000				
Purchase Hydraulic Breaker Attachment - Hoe Ram	9,500				
Install and Replace Hydrants	146,000	148,000	150,000	152,000	154,000
Install and Replace Valves	71,000	72,000	73,000	74,000	75,000
Install Meters - New Services	240,000	242,000	245,000	248,000	251,000
Install, Replace, and Relocate Mains	81,000	83,000	84,000	85,000	86,000
Pine Ridge Jockey Pump Replacement	5,800				
Purchase ProCom Sol Smart Communicator Durabook	6,000				
Purchase/Install Meters - Change Out Program	125,000	600,000	605,000	609,000	612,000
Purchase/Install Services (New, Replace, and Transfer)	1,350,000	1,375,000	1,400,000	1,425,000	1,450,000
Replace 2 Ton Dump Truck	92,000	190,000	194,000	195,000	196,000
Replace 3 Ton Dump Truck	120,000				
Replace 3/4 Ton Service Truck(s) (2018 - 2 trucks - 446, 448)	68,000	66,000	102,000	135,000	138,000
Replace Air Piercing Tool (Mole Hog)	9,000	8,000	8,000		
Replace CLW Warehouse Heaters	14,000				
Replace 1/2 Ton Truck(s)	130,000	138,000	138,000	140,000	120,000
Replace One Ton Van	38,000	38,500	39,000		39,000
Replace Two Ton Crew Truck(s)	360,000	244,000		130,000	132,000
Install Schweitzer 710-5 Motor Manager Relay Intermediate Pump No. 6	5,800				
Replace Soft Start Station 22 - Pump No. 4	9,000				
Purchase Spare Control Transformer Lake Maumelle Control Room	22,000				
Purchase Spare Lake Maumelle Generator Main Breaker	17,000				
Upgrade / Replace Access and Gates at MAC	10,000				

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DESCRIPTION	2018	2019	2020	2021	2022
Replace Wilson Plant Alum Flow Meter	22,000				
Replace Wilson Plant Influent Valve No. 1 Actuator	9,000				
Rehab Wilson Plant West Filter Gallery Roof	36,000				
Install and Replace Hydrants - Maumelle	6,000	7,000	8,000	9,000	9,000
Install and Replace Valves - Maumelle	5,800	5,800	5,800	6,000	7,000
Install Meters for New Services - Maumelle	8,000	10,000	12,000	13,000	14,000
Install, Replace, and Relocate Mains - Maumelle	8,000	10,000	12,000	13,000	14,000
Purchase/Install Services (New, Replace, and Transfer) - Maumelle	200,000	200,000	200,000	200,000	200,000
Maumelle Meter Change Out Program - Maumelle Meters to CAW Meters	900,000				
Purchase 3/4 Ton Service Truck - Maumelle	32,500				
Replace Wilson Plant Waste Water Pump No. 3	18,000				
Remodel House - Lake Winona	65,000				
Replace 3/4 Ton Service Truck (521)		35,000			
Replace 1 Ton Service Truck(s)		38,000	81,000		
Replace Motor No. 5 Station 16A		25,000			
Purchase Hydrant Tool - Impact Drive Hydrant Saver		10,500			
Purchase Leak Detection Equipment		9,000			
Restore - Tank No. 17		200,000			
Restore - Tank No. 22		750,000			
Restore - Tank No. 8 - Interior		55,000			
Replace 3 Ton Dump Truck (531)			122,000		
Restore - Tank No. 25			210,000		
Purchase Vac-Tron			70,000		
Replace 1.5 Ton Service Truck (522 - crane truck)				46,000	
Restore - Tank No. 2 - Exterior				600,000	
Expand CLW Warehouse				400,000	
Restore - Tank No. 21					850,000
Arc Flash Hazard Analysis	52,000	50,000	50,000	50,000	50,000

DESCRIPTION	2018	2019	2020	2021	2022
TOTAL	4,327,400	4,609,800	3,808,800	4,530,000	4,397,000
			,	,	
CUSTOMER SERVICE	J				
Replace Meter Reader Trucks	36,000	18,000	18,000		
Replace Lobby Furniture - JTH	6,700				
Replace Customer Service Van	22,000				
Purchase Ergonomic Sit Stand Desks	11,000				
Postage Meter	10,000				
TOTAL	85,700	18,000	18,000		
ADMINISTRATION					
Replace Confined Space Gas Monitors	25,000				
Replace Truck	25,000				
Purchase Equipment for CIS Team Area	25,000				
Purchase Quench Buggy	55,000				
Building landscaping - JTH		25,000			
Security Enhancements		36,000	36,000	36,000	36,000
TOTAL	130,000	61,000	36,000	36,000	36,000
WATER QUALITY	]				
Aerial Photography - Watershed	10,000	10,000	10,000	10,000	10,000
Forest Restoration and Enhancement	50,000				
Improve Buildings - WGF	10,000				
Improve Forest Roads	50,000	50,000	50,000	50,000	50,000
Install Bridge Access to former WGF	400,000				

DESCRIPTION	2018	2019	2020	2021	2022
Install Dedicated WQ Sampling Stations	12,000	12,000	12,000	12,000	12,000
Purchase and Implement LIMS system	100,000				
Purchase Conservation Easements	300,000	300,000	200,000	200,000	200,000
Purchase Property	500,000	500,000	500,000	500,000	500,000
Replace 1/2 Ton Truck (2018 528)	30,000				
Replace Tractor for Watershed Needs	30,000				
Restore River, Floodplain and Wetland - WGF	100,000	100,000	100,000	100,000	
Land Coverage Determination		50,000			
Restore Hydrologic Flow- USACE Sec. 206 Project	350,000				
Replace Ion Chromatograph				100,000	
Replace ICP/Mass Spec				150,000	
Replace TOC Analyzer					100,000
Replace Laboratory Facilities		500,000	500,000	500,000	
TOTAL	1,942,000	1,522,000	1,372,000	1,622,000	872,000
INFORMATION SERVICES					
Purchase - Online Performance Evaluation Software	30,000				
Purchase Customer Service Chat Software	35,000				
Purchase - Online Employee Application Software	30,000				
Purchase ITMP Tasks/Equipment	25,000	25,000	25,000	25,000	25,000
Conduct Network PIN Test	15,000				
Replace Network Firewalls	30,000				30,000
Replace Server UPS units					20,000
Replace Servers	85,000	20,000	20,000	20,000	20,000
Replace Customer Information System	4,500,000	9,000,000	1,500,000		
Expand Storage Area Network (SAN)	130,000				

DESCRIPTION	2018	2019	2020	2021	2022
Upgrade Operating Systems on Servers	20,000				
Upgrade VM Ware Host	50,000				50,000
Purchase Billing Printer		48,000			
Purchase Additional SAN Disk VMWare Servers		65,000			
Purchase Microsoft Server Licenses		23,000			
Document Management System		150,000			
Replace GPS Equipment			30,000	30,000	
Upgrade Financial Management Software			40,000		
Upgrade Phone System			85,000		
Replace Large Format Scan/Print/Copy Machine			25,000		
Replace and Upgrade Network Switches				40,000	
Upgrade Phone System - Lake Maumelle				60,000	60,000
Purchase Microsoft Office				80,000	
Replace SCADA Switches				35,000	35,000
Install Data Storage Protection					50,000
Replace Wireless AP					35,000
TOTAL	4,950,000	9,331,000	1,725,000	290,000	325,000
ENGINEERING	]				
Improve Ozark Point Plant - Clearwell No. 4 Paint and Baffles			2,000,000	1,500,000	
Improve Ozark Point Plant - Engineering Design	2,000,000				
Improve Pump Station No. 1A - Construction Engineering Phase 1 - Wilson Plant	96,000	36,000			
Improve Pump Station No. 1A - Construction Phase 1 - Wilson Plant	2,145,000	1,100,000			
Construct Manitou Booster Pump Station Improvements - Maumelle Job No. 07606A	355,000				
Construct Structural Repair of Tank No.1 - Maumelle Job No. 07612	400,000				
Remove Sludge - Water/Wastewater Lagoons - Maumelle Job No. 07602				2,000,000	
Install Distribution System Pressure Improvements - Maumelle Job No. 07603	75,000				

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DESCRIPTION	2018	2019	2020	2021	2022
Install Pump in Wilson High Service Pump Station No. 1B - Maumelle Job No. 07605 CARRYOVER	225,000				
Replace Master Meters - CARRYOVER	100,000				
Developer Funded Capital	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Purchase DeGray Lake Water Rights	4,640,000				
Relocate 12/8/6-inch Water Main - Phase 2 - Kanis Rd/Embassy Suites to Bowman	200,000				
Relocate 24-inch Transmission Main - Maryland Avenue - Sherwood	1,400,000				
Relocate 8-inch and 12-inch Water Mains - Counts Massie/Crystal Hill Rd - Proj No. 4037	400,000				
Relocate Water Mains - Various Known/Unknown Locations - State/County/City Improvements	750,000	300,000	300,000	300,000	300,000
Install 20-inch Swing Connection - Gravity System - Chicot Rd/So. University	75,000				
Install 30-inch Transmission Main - Maumelle - Construction Job No. 07604 CARRYOVER	500,000				
Install 30-inch Transmission Main - Maumelle - Engineering Job No. 07604B CARRYOVER	25,000				
Developer Participation - New Mains	50,000	50,000	50,000	50,000	50,000
Install 8-inch Main - W Baseline - Interconnection W Markham and Mabelvale - Proj No. 4092 CARRYOVER	350,000				
Replace Distribution Mains Phase 1 - Maumelle Job No. 07610 CARRYOVER	580,000				
Replace Distribution Mains Phase 2 - Maumelle Job No. 07610 CARRYOVER	690,000				
Replace Water Mains - Galv, AC, CI - Systemwide	2,097,200	2,715,000	2,784,000	4,760,000	4,586,000
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	10,000	10,000	10,000		
Replace Vehicle(s) - Engineering	26,000	26,000	27,000	28,000	28,000
Construct Booster Pump Station No. 11 Improvements/Rehabilitation		325,000			
Improve Ozark Point Plant - Construction		2,700,000	10,700,000	8,000,000	
Improve Ozark Point Plant - Construction Phase Engineering Services		150,000	300,000	300,000	
Improve Ozark Point Plant - Install Flow Meters		500,000			
Improve Ozark Point Plant - Lime Improvements		400,000			

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DESCRIPTION	2018	2019	2020	2021	2022
Install Master Plan Distribution Mains - Various		250,000	250,000	250,000	250,000
Relocate 16-inch Transmission Main - Capitol Drain/N. Cantrell Rd/Gill St Bridge- LR		350,000			
Repair Lake Winona Spillway		75,000			
Repair Lake Winona Storm Drains		75,000			
Conduct Inundation Study - Jackson Reservoir		60,000			
Install 24-inch Transmission Main - N. Locust St/PS No. 23 - NLR			1,900,000		
Replace Building Roofs - Lake Winona			15,000		
Install 12-inch Water Main - WM to WM Pressure Zone Interconnection				250,000	
Construct Booster Pump Station No. 17B - Highland Ridge					600,000
Install 8-inch Water Main - Joslin Rd/Oak Grove Looping					225,000
Improve Pump Station No. 1A - Construction Phase 2 - Wilson Plant				1,500,000	1,300,000
TOTAL	19,704,200	11,637,000	20,851,000	21,453,000	9,854,000
GRAND TOTAL	32,299,300	27,818,800	28,537,800	28,391,000	15,794,000

Green shaded rows are featured in the Projects section on the following pages.

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**PROJECTS** 

# **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.

These projects all have an anticipated capital investment of \$500,000 or greater over the five year capital planning period of 2018 - 2022. 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.



Project Name: Replace GAC Media

Department: Water Production

Focus Area: Treatment

**Location:** Ozark Point Plant







Name:	Est Start Date:	<b>Duration:</b> (Months)
Randy Easley	March 2017	60 Months

### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	200,000	260,000	260,000	260,000	260,000

### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

### PROJECT PURPOSE

Activated carbon is commonly used to adsorb natural organic compounds, taste and odor compounds, and synthetic organic chemicals in drinking water treatment. Central Arkansas Water utilizes the activated carbon in granular form in its filtration-adsorption process in which all of the filter media is GAC.

The need to periodically 'reactivate (regenerate)' or replace the 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, ANSI/AWWA B100-01, American Water Works Association.

**Project Name:** Coat Pipe Gallery Piping - Wilson Plant

**Department:** Water Production

Focus Area: Treatment Location: Wilson Plant







Name:	Est Start Date:	<b>Duration:</b> (Months)
Doug Graham	March 2018	21 Months

### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	300,000	200,000	_	_	_

### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

### PROJECT PURPOSE

Pipe gallery piping is the means of conveyance for water to and from the filters. The backbone of treatment, the pipe gallery piping is constructed of steel and was originally coated to protect the steel from corrosion and degradation. Since the original installation in 1964 and subsequent plant additions in 1974 and 1984, the coating has peeled off in places and been removed and compromised during construction projects. This has caused the steel pipe and bolts to be exposed to the atmospheric moisture and air resulting in the steel degrading.

Coating of the steel piping will protect it from exposure to the atmosphere as well as 'sweating' when the temperature differs between the water in the piping and the atmosphere. This will increase the life and enhance the resiliency of the piping infrastructure.

Project Name: Install and Replace Hydrants

Department: Distribution
Focus Area: Hydrants
Location: CAW System







Name:	Est Start Date:	<b>Duration:</b> (Months)
Terry Bice	January, 2018	Ongoing

# **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	146,000	148,000	150,000	152,000	154,000

# **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

## **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:DistributionFocus Area:MetersLocation:Systemwide





Name:	Est Start Date:	<b>Duration: (Months)</b>
Terry Bice	January, 2018	Ongoing

## **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	240,000	242,000	245,000	248,000	251,000

## **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

## 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: Purchase/Install Meters - Change Out Program

Department:DistributionFocus Area:MetersLocation:Systemwide





Name:	Est Start Date:	<b>Duration:</b> (Months)
Terry Bice	January, 2018	Ongoing

## **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	125,000	600,000	605,000	609,000	612,000

## **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

### 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 prior research: 16 years for 5/8-inch meters, 10 years for 1-inch meters, 12 years for 3/4-inch meters, 8 years for 1-1/2-inch meters, and 6 years for 2-inch meters. The budget amount for 2018 is reduced due to the planned meter change out in Maumelle.

Project Name: Purchase/Install Services (New, Replace, and Transfer)

Department:DistributionFocus Area:ServicesLocation:CAW System







Name:	Est Start Date:	<b>Duration:</b> (Months)
Terry Bice	January, 2018	Ongoing

# **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	1,350,000	1,375,000	1,400,000	1,425,000	1,450,000

## **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	—	_

# **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: Replace Vehicles

**Department:** All

Focus Area: Vehicles

**Location:** James T. Harvey Administration and Clearwater







Name:	Est Start Date:	<b>Duration:</b> (Months)
Various	January, 2018	Ongoing

### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	1,009,500	793,500	721,000	674,000	653,000

### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	—	—	—	_

### 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**

	2018	2019	2020	2021	2022
Replace 1 Ton Service Trucks		38,000	81,000		
Replace 1.5 Ton Service Truck				46,000	
Replace 1/2 Ton Trucks	247,000	182,000	183,000	168,000	148,000
Replace 2 Ton Dump Trucks	92,000	190,000	194,000	195,000	196,000
Replace 3 Ton Dump Trucks	120,000		122,000		
Replace 3/4 Ton Service Trucks	130,500	101,000	102,000	135,000	138,000
Replace Customer Service Van	22,000				
Replace One Ton Vans	38,000	38,500	39,000		39,000
Replace Two Ton Crew Trucks	360,000	244,000		130,000	132,000

Purchase/Install Services (New, Replace, and Transfer)

Project Name: - Maumelle
Department: Distribution
Focus Area: Services

Location: Maumelle Service Area







Name:	Est Start Date:	<b>Duration:</b> (Months)
Terry Bice	January, 2018	Ongoing

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM - RATES	200,000	200,000	200,000	200,000	200,000

# **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### **PROJECT PURPOSE**

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

Maumelle Meter Change Out Program - Maumelle

Project Name: Meters to CAW Meters

**Department:** Distribution **Focus Area:** Meters

**Location:** Maumelle Service Area





Name:	Est Start Date:	<b>Duration: (Months)</b>
Terry Bice	January, 2018	12 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM -					
Surcharge	900,000	—	—	—	—

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

The Maumelle meter change out program consists of changing out the meters in the Maumelle area, which read in gallons and have also reached the end of their useful lives, with standard meters used in the CAW system, which read in cubic feet.

Project Name: Restore - Tank No. 2 - Exterior

Department: Distribution Focus Area: Tanks
Location: Little Rock





Name:	Est Start Date:	<b>Duration:</b> (Months)
Terry Bice	March, 2021	6 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	_	<u> </u>	—	600,000	—

## **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

The project consists of required maintenance to elevated water storage Tank No. 2 located near the Interstate 430 and Interstate 630 interchange in west Little Rock. The exterior of Tank 2 will be sandblasted as needed and repainted due to deterioration of the original exterior paint installed during construction of the tank in 1986.

Project Name: Restore - Tank No. 21

**Department:** Distribution **Focus Area:** Tanks

**Location:** Systemwide





Name:	Est Start Date:	<b>Duration: (Months)</b>
Terry Bice	September, 2022	12 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	_	_	_	_	850,000

# **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

# **PROJECT PURPOSE**

The project consists of required maintenance to the exterior of elevated water storage Tank No. 21 located in the Galloway area of North Little Rock. The exterior of Tank No. 21 will be sandblasted as needed and repainted due to deterioration of the existing exterior finish.

**Project Name:** Purchase Conservation Easements

**Department:** Water Quality

Focus Area: Watershed Protection
Location: Lake Maumelle Watershed





Name:	Est Start Date:	<b>Duration:</b> (Months)
Randy Easley	January, 2018	Ongoing

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
WPF	300,000	300,000	200,000	200,000	200,000

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	3,000	6,000	9,000	12,000	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 our water supply.

The ability to utilize conservation easements as opposed to fee title ownership allows the landowners to continue use of their property while achieving the management objectives of the Utility at a reduced cost.

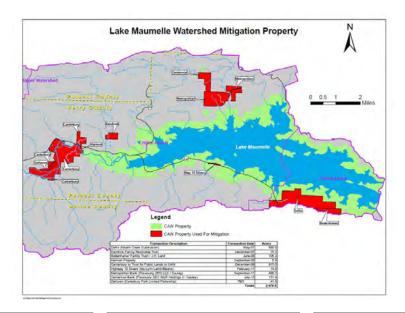
Project Name: Purchase Property

Department: Water Quality

Focus Area: Watershed Protection

Location: Lake Maumelle Watershed





Name:	Est Start Date:	<b>Duration: (Months)</b>
Randy Easley	January, 2018	Ongoing

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
WPF	500,000	500,000	500,000	500,000	500,000

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	2,500	5,000	7,500	10,000	12,500

#### **PROJECT PURPOSE**

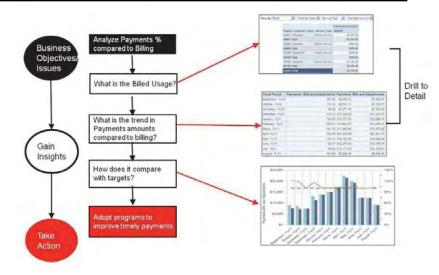
Land purchases are essential to the protection and management of our watersheds. CAW can best manage the source water from the watersheds of Lake Maumelle and Lake Winona by purchasing land and applying scientifically sound practices and strategies for land and water management and conservation.

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 of the plan.

**Project Name:** Replace Customer Information System

Department:Information ServicesFocus Area:Customer BillingLocation:CAW System





Name:	Est Start Date:	<b>Duration:</b> (Months)
Allen Vincent	January 2018	36 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
2018-BOND	3,748,000	8,350,000	1,200,000	_	_
RATES	752,000	650,000	300,000	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

CAW's current CIS utility billing system has been in place for 20 years. During this time the current system has not kept up with trends in technology, the needs of the utility, or the expectations of our customers. As part of the 2017 Information Technology Master Plan (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 lot of unplanned costs.

The assessment concluded that significant benefits could be realized by both the Utility and its customers by performing a clean install of a new billing system. Implementation of a new CIS built on modern technology will address the issues currently experienced by the Utility and handle CAW's billing needs for years to come.

2018 expenditures consist of defining the overall requirements of the desired system, creation of a request for proposal (RFP) document, selection of a system, and the first steps of system conversion. Expenditures during the following two years consist of necessary data conversion and system implementation work for a targeted system launch in early 2020.

Improve Ozark Point Plant - Clearwell No. 4 Paint and

Project Name: Baffles

**Department:** Engineering

Focus Area: Rehabilitation of Ozark Point Plant

**Location:** Ozark Point Plant







Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	October, 2020	6 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ANRC	_	_	2,000,000	1,500,000	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### **PROJECT PURPOSE**

This project consists of the construction activities necessary to paint the interior and exterior of Clearwell No. 4. The project will also include the removal of the existing internal baffles that are not functioning properly and install new baffles. The project will serve to increase the functional life, efficiency, and effectiveness of the 55 year old steel tank. The need for this project was identified in the Ozark Point WTP Rehabilitation Preliminary Engineering Report.

**Project Name:** Improve Ozark Point Plant - Engineering Design

**Department:** Engineering

Focus Area: Rehabilitation of Ozark Point Plant

**Location:** Ozark Point Plant







Name:	
Jim Ferguson	

Est Start Date:	
January, 2018	

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

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ANRC	2,000,000	—	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### **PROJECT PURPOSE**

This project consists of the engineering and design work for the necessary rehabilitation and improvements to Ozark Point Plant that will increase functional life, efficiency, and effectiveness of the 79 year old treatment plant. The project will identify and design the structural rehabilitation and improvements to the flocculation and sedimentation basins, clearwells, filter/control/chemical building, filter pipe gallery, and the backwash/sludge/wastewater system. Building repairs and improvements will also be designed.

Project Name: Improve Pump Station No. 1A - Construction Phase 1 -

Wilson Plant Engineering

Department: Engineering Focus Area: Pumping System

Location: Wilson Plant







Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January, 2018	24 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ANRC	2,145,000	1,100,000	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

This project consists of the construction element of Phase 1 of the recommended pump, structure, and electrical improvements to the existing Wilson Plant Pump Station No. 1A that was designed in 2016/2017. The improvement project has been split into two phases for sequencing and funding purposes. A Preliminary Engineering Report (PER) was completed in 2015 that details needed improvements for Booster Pump Station No. 1A, the original pump station located at the Wilson Plant. This pump station is the primary station pumping into the LR 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 addressed 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. The 2015 PER provided an Opinion of Probable Cost that is used for budgeting.

Project Name: Remove Sludge - Water/Wastewater Lagoons -

Maumelle Job No. 07602

**Department:** Engineering Focus Area: MWM Merger Location: Maumelle







Name:	
Jim Ferguson	

<b>Est Start Date</b>	:
March, 2021	

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

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM -					
SURCHARGE	<u> </u>	<u> </u>	_	2,000,000	_

### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

This project will consist of the removal of biosolids and sludge from the MWM water treatment plant and the sludge lagoon located at the MWM wastewater treatment. Removal of the sludge will allow for the permit closure of these lagoons as they are no longer needed at their respective treatment plants. The water treatment plant will be closed after completion of the Maumelle Transmission Main. The wastewater treatment plant may be closed by North Little Rock Wastewater Utility in the near future. Removal of the sludge from the two lagoons is a component of the CAW/MWM merger plan.

Project Name: Developer Funded Capital

**Department:** Engineering **Focus Area:** Mains

Location: CAW System





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January 2018	Ongoing

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
DEV	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### 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 and fire hydrants in new subdivisions, and distribution infrastructure to service large new commercial developments. All improvements are reviewed and approved by CAW Engineering staff both in the planning phase and upon completion of construction to ensure compliance with Utility design standards.

**Project Name:** Purchase DeGray Lake Water Rights

Department:EngineeringFocus Area:Water SourceLocation:DeGray Lake





Name:	Est Start Date:	<b>Duration: (Months)</b>
Jim Ferguson	October, 2018	1 Month

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ARMY	4,640,000	_	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	(88,000)	(88,000)	(88,000)	(88,000)	(88,000)

#### PROJECT PURPOSE

This project is the purchase of 100 MGD of the 120 MGD water rights currently under the right of first refusal contract with the Corps. With this purchase, CAW will own or have rights to three water supply sources, ensuring a sustainable long-term water supply which will meet the Utility's needs well into the next century. This purchase will decrease operation and maintenance costs approximately \$88,000 per year and increase debt service costs approximately \$571,000 per year though 2022. Funding for the purchase is through the assumption of a loan of \$3.6 million from the Corps combined with \$1.1 million received from the City of Hot Springs for 20 MGD of the 120 MGD total purchased from CAW in 2013.

**Project Name:** Transmission and Distribution Main Relocation Projects

**Department:** Engineering

Focus Area: Mandatory Relocation Projects

**Location:** CAW System



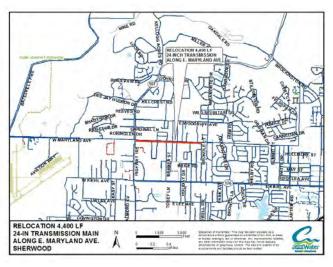


#### PROJECT PURPOSE

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 - 2017 without a significant reduction in the replacement of galvanized pipe by using EWC and has continued this practice in 2018 as relocation projects have decreased. Funds for relocations in 2018 - 2022 result in the decrease of galvanized pipe replacement projects in these years.

Project Name: Relocate 24-inch Diameter Transmission Main - Maryland Avenue - Sherwood



<b>Est Start Date:</b>	
March, 2018	

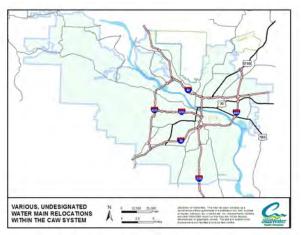
Duration: (Months)

3 Months

Total Cost: \$1,600,000

Source	2018	2019	2020	2021	2022
RATES	1,600,000	_	_	_	_

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



Est Start Date:	
January, 2018	

Duration: (Months)

60 Months

Total Cost: \$1,950,000

Source	2018	2019	2020	2021	2022
RATES	750,000	300,000	300,000	300,000	300,000

Install 30-inch Diameter Transmission Main - Maumelle -**Project Name:** 

Construction

**Department:** Engineering

Focus Area: Mains Location: Maumelle





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January, 2018	12 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM-BOND	500,000	_	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### **PROJECT PURPOSE**

This project is the conclusion of installing approximately 5.5 miles of 30-inch diameter transmission main extending from the North Little Rock Northbelt Transmission Main to Maumelle Blvd. in the City of Maumelle. This will allow the connection of Maumelle to the CAW service area and the subsequent shutdown of the existing Maumelle raw water wells and water treatment plant. This is in conformance with the CAW/MWM merger agreement.

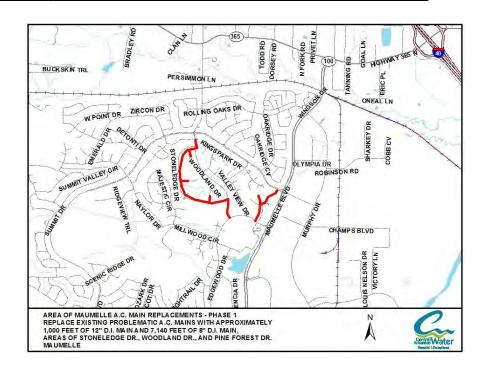
Replace Distribution Mains Phase 1 - Maumelle Job No.

Project Name: 07610 CARRYOVER

**Department:** Engineering

Focus Area: Mains
Location: Maumelle





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January 2018	6 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM-BOND	580,000	_	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	—	_

#### **PROJECT PURPOSE**

This project will consist of the replacement of problematic asbestos cement (A.C.) mains with 8,000 feet of ductile iron (D.I.) mains located along areas of Stoneledge Dr., Woodland Dr., and Pine Forest Dr. within the City of Maumelle. This replacement project was identified

in the CAW/MWM merger agreement and is funded with the Maumelle Acquisition and Construction bonds.

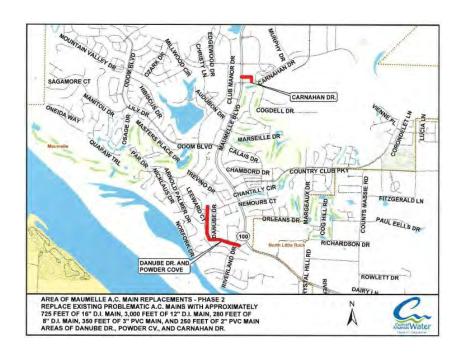
Replace Distribution Mains Phase 2 - Maumelle Job No.

Project Name: 07610 CARRYOVER

**Department:** Engineering

Focus Area: Mains Location: Maumelle





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January, 2018	8 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM-BOND	690,000	_	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### **PROJECT PURPOSE**

This project will consist of the replacement of problematic A.C. mains with approximately 4,000 feet of D.I. mains and 600 feet of PVC mains located along areas of Danube Dr., Powder Cv., and Carnahan Dr. within the City of Maumelle. This replacement project was identified in the CAW/MWM merger agreement and is funded with the Maumelle Acquisition and Construction bonds.

Project Name: Replace Water Mains - Galv, AC, CI - Systemwide

**Department:** Engineering

Focus Area: Asset Replacement

Location: CAW System







Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January, 2018	Ongoing

## **Capital Expenditure**

Source	2018	2019	2020	2021	2022
MWM-BOND	2,421,700	3,365,000	3,084,000	4,760,000	4,586,000

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### 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.

Project Name: Improve Ozark Point Plant - Construction

**Department:** Engineering

Focus Area: Rehabilitation of Ozark Point Plant

**Location:** Ozark Point Plant





Name:	Est Start Date:	<b>Duration: (Months)</b>
Jim Ferguson	October, 2019	24 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ANRC	_	2,700,000	10,700,000	8,000,000	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

This project consists of the construction activities necessary to rehabilitate and improve the Ozark Point Plant and to increase functional life, efficiency, and effectiveness of the 78 year old plant. The engineering and design for this project will be performed in 2017 and 2018. The work will consist of structural rehabilitation of and improvements to the flocculation and sedimentation basins, clearwells, filter/control/chemical building, filter pipe gallery, and the backwash/sludge/ wastewater system.

Improve Ozark Point Plant - Construction Phase

**Project Name:** Engineering Services

**Department:** Engineering

Focus Area: Rehabilitation of Ozark Point Plant

**Location:** Ozark Point Plant





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	October, 2019	24 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ANRC	_	150,000	300,000	300,000	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

This project consists of the construction phase Engineering Services necessary to rehabilitate and improve the Ozark Point Plant and to increase functional life, efficiency, and effectiveness of the 78 year old plant. The engineering and design for this project is currently planned to be performed in 2017 and 2018. The work will consist of structural rehabilitation of and improvements to the flocculation and sedimentation basins, clearwells, filter/control/chemical building, filter pipe gallery, and the backwash/sludge/ wastewater system.

**Project Name:** Improve Ozark Point Plant - Install Flow Meters

**Department:** Engineering

Focus Area: Rehabilitation of Ozark Point Plant

**Location:** Ozark Point Plant





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January, 2019	10 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
ANRC	_	500,000	_	_	_

#### **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

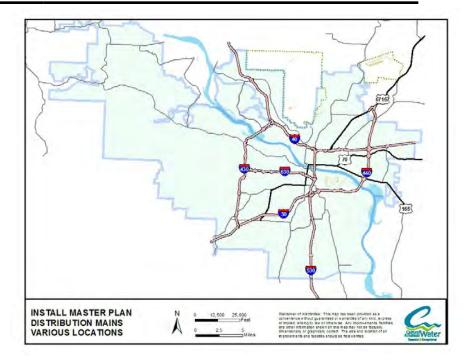
This project consists of installing flow meters at the Ozark Point Plant to increase functional life, efficiency, and effectiveness of the 78 year old plant. The engineering and design for this project is currently planned to be performed in 2017 and 2018. The work will consist of structural rehabilitation of and improvements to the flocculation and sedimentation basins, clearwells, filter/control/chemical building, filter pipe gallery, and the backwash/sludge/ wastewater system.

Project Name: Install Master Plan Distribution Mains - Various

**Department:** Engineering **Focus Area:** Mains

Location: Systemwide





Name:	Est Start Date:	<b>Duration:</b> (Months)
Jim Ferguson	January, 2019	48 Months

# **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	_	250,000	250,000	250,000	250,000

## **O&M Impact**

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

# **PROJECT PURPOSE**

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

Install 24-inch Transmission Main - N. Locust St/PS No.

Project Name: 23 - NLR

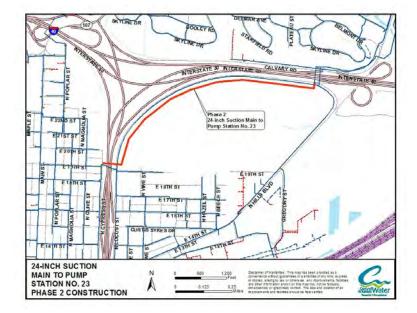
Department: Engineering

Maine

Focus Area: Mains

**Location:** North Little Rock





Name:	Est Start Date:	<b>Duration:</b> (Months)	
Jim Ferguson	January, 2020	12 Months	

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	_	_	_	1,900,000	_

#### **O&M** Impact

G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

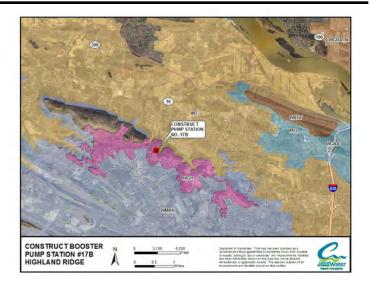
This project will construct approximately 7,000 linear feet of 24-inch water transmission main to additional flow and redundant capacity to the No. 23 tank and booster pump station located at Montgomery Point in North Little Rock. This project would be the second and last phase of construction of the 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 52 years old and is the subject of frequent leaks and shutdowns.

Construct Booster Pump Station No. 17B - Highland

**Project Name:** Ridge

**Department:** Engineering Focus Area: **Pumps** Location: Little Rock





Name:	Est Start Date:	<b>Duration: (Months)</b>
Jim Ferguson	January, 2022	10 Months

#### **Capital Expenditure**

Source	2018	2019	2020	2021	2022
RATES	_	_	_	_	600,000

#### **O&M Impact**

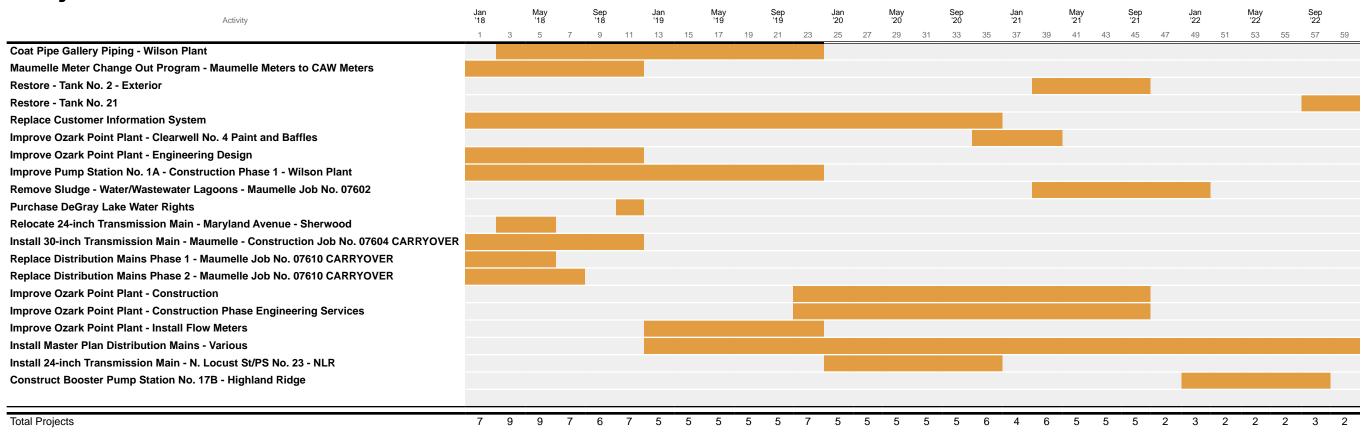
G/L	2018	2019	2020	2021	2022
	_	_	_	_	_

#### PROJECT PURPOSE

The Highland Ridge pressure system is currently served by two booster pumping stations, PS No. 17 and PS No. 16B, with a combined capacity to deliver 1.25 MGD into the pressure system. PS 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.

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# **Project Planner**



Central Arkansas Water - Financial Plan 2018 -

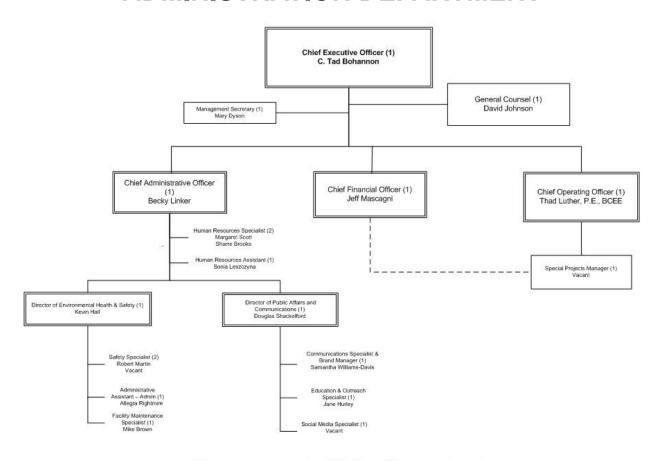
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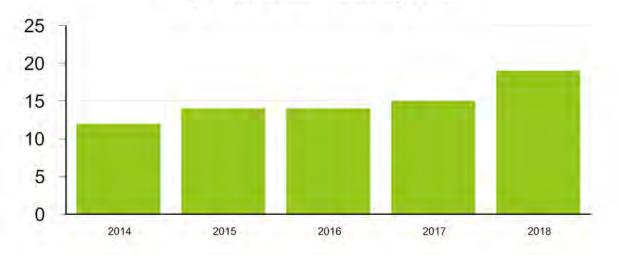


# DEPARTMENTS

# **ADMINISTRATION DEPARTMENT**



# **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 CAO, 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 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, Water Quality and Water Production departments, as well as day to day supervision of the Special Projects Manager.

#### **Chief Financial Officer**

The CFO is responsible for managing all financial, customer service, and technology driven aspects of the Utility. 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 Administrative Officer**

The CAO is responsible for managing administrative aspects of the Utility and for ensuring a high performing, innovative, values-driven, informed, and passionate workforce is in place to carry out the mission of CAW. The CAO directly supervises the Human Resources (HR), Public Affairs and Communications, and EHS sections of the Administration Department. The CAO is responsible for overseeing development and implementation of HR and EHS policies and programs, employee and leadership development, compliance

with Federal and State employment and safety regulations, internal and external communications programs, and administration of the Utility's Strategic Plan.

#### **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, CEO, or COO.

**EUM Attribute:** Employee and Leadership Development

**Goal:** Implement increased leadership and employee development training for

CAW managers and employees.

**EUM Attribute:** Stakeholder Understanding/Support

**Goal:** Maintain open dialogue with city and county officials, major customers,

regional partners, and community organizations.

#### **2017 Accomplishments**

CAW's leadership transitioned to a new CEO, Tad Bohannon, upon the resignation of Graham Rich, CEO, effective January 8, 2016. While CEO transitions are far from rare, Tad is only the third CEO of CAW, which has traditionally had long-term leadership. Fortunately, due to Tad's long association with the utility as its legal counsel, the Board and staff were familiar with Tad and Tad was familiar with the Utility, thereby assisting in a smooth transition. Under Tad's leadership, CAW has continued its history of outstanding customer service and water quality. CAW has also increased customer accounts by approximately 7.5% or 10,000 meters with the Utility's consolidation with MWM. With separate water sources, operations, procedures, billing software, and financial systems, consolidation with MWM's water system has not been without challenges, but the consolidation process continues. CAW transferred MWM accounts to CAW's billing system in June 2017 and plans to transfer MWM's customers from MWM's old water source to CAW's water sources in early 2018.

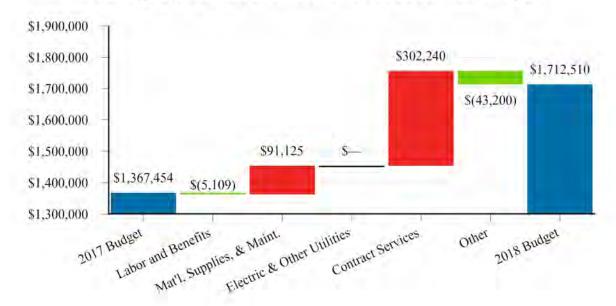
#### **2018 Goals**

- Continued integration of MWM
- Long-term Succession Planning
- Improve long-term financial and source water sustainability
- Continue increasing cross departmental functionality
- Begin formalizing Standard Operating Procedures and processes
- Increase employee developmental opportunities
- Increase community knowledge and satisfaction

# **Administration Department - Expenditure Summary**

		2016	2017	2017	2018
		Actual	Projected	Budget	Budget
Labor and Benefits	\$	933,934	\$ 961,503	\$ 967,534	\$ 962,425
Materials, Supplies, and Maintenance		93,789	117,348	120,460	211,585
Electric and Other Utilities		80	740	960	960
Contract Services		203,548	262,785	199,300	501,540
MWM Transition Cost		7,826	127	_	_
Other		17,808	50,897	79,200	36,000
Total Expenses		1,256,985	1,393,400	1,367,454	1,712,510
Total Capital Expenditures		289,372		1,560,000	130,000
Total Administration		1,546,357	\$ 1,393,400	\$ 2,927,454	\$ 1,842,510

# Change by Natural Classification - 2017 to 2018 Budget



# **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 conducts 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 (PPE), 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.

**EUM Attribute:** Operational Resiliency

**Goal:** 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.

#### **2017 Accomplishments**

By the end of 2017, 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

#### **2017 Accomplishments**

EHS will complete a thorough safety inspection by the end of 2017 at all CAW facilities (JTH, MAC, 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

### **2017 Accomplishments**

EHS anticipates visiting over 150 job sites by the end of 2017. 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.

#### **2018 Goals**

EHS will continue to implement recommendations of the Vulnerability Assessment in 2018, 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 be creating new safety policies as well as updating current safety policies included in the utility safety manual.

EHS will be working closely with our Distribution department to conduct a utility wide electrical safety survey. This will include creating standard operating procedures (SOPs) while working near high voltage services and equipment.

EHS will begin the process of creating a Job Safety Analysis program in 2018. This will help integrate accepted safety and health principles and practices into a particular task or job operation.

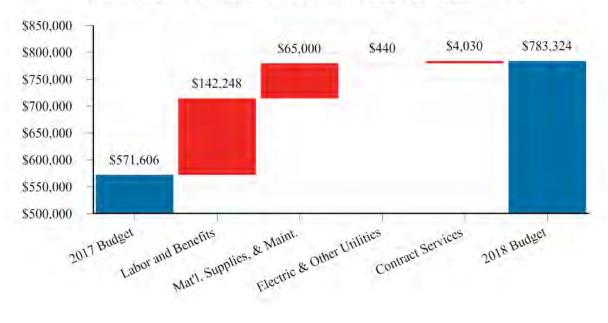
EHS will begin creating "self-paced" on-line safety training in 2018. This proficiency-based model will allow employees to have a schedule that meets their individual training requirements.

Performance Measures	2016 Actual	2017 Estimated	2018 Budget
Safety Training Classes	106	100	100
Safety Training Hours (cumulative)	2,314	2,400	2,500
Workers' Comp Claims	20	11	11
Workers' Comp Claim Costs	\$398,824	\$408,000	\$125,000
Workers' Comp Lost Time (days)	348	100	0
"At Fault" Vehicular Accidents	7	6	6
"Not At Fault" Vehicular Accidents	6	4	6
Perform all Facility and Vehicular Inspections	Y	Y	Y

# **Environmental Health & Safety - Expenditure Summary**

	2016	2017	2017	2018
	ACTUAL	Projected	Budget	Budget
Labor and Benefits	328,827	307,193	310,788	453,036
Materials, Supplies, and Maintenance	56,890	63,746	88,700	153,700
Electric and Other Utilities	520	940	1,500	1,940
Contract Services	145,948	164,862	170,618	174,648
Total Expenses	532,185	536,741	571,606	783,324
Total Capital Expenditures	_		_	_
Total Environmental Health & Safety	532,185	536,741	571,606	783,324

# Change by Natural Classification - 2017 to 2018 Budget



# **HUMAN RESOURCES**

The Human Resources Section provides services and support for all aspects of employment, employee relations, and strategic planning for each of CAW's 300+ dedicated employees. The section's four staff members, who collectively have over 93 years of experience in the field of Human Resources, 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 providing oversight of CAW's Strategic Plan.

Human Resources is responsible for addressing many of the challenges currently faced by employers across the nation, including IRS reporting and other new requirements under the Affordable Care Act, continually changing and expansive employment legislation, increased turnover, and knowledge/experience drain caused by retirement of the baby boomer generation, qualified labor pool shortages, and a budget restrictive economy.

Additionally, Human Resources works hard to ensure that CAW's employees enjoy a uniquely positive work environment, with opportunities for individual professional growth and the opportunity to make important contributions to the growth of the Utility. All of the programs and initiatives of the Human Resources Section focus on a single objective ensuring that CAW has the well-educated, well-trained, and dedicated work force that the Utility requires to provide the exceptional water and outstanding service that customers expect and on which they know they can depend.

#### <u>Mission</u>

The Human Resources staff strives to provide the Utility with a well-qualified, diverse, and dedicated work force through recruitment efforts and Utility programs. Human Resources is dedicated to providing CAW's 300+ employees with outstanding service, support, information, and assistance in regard to Utility policies, benefits, programs, and other areas of concern.

Human Resources is committed to ensuring that the Utility's recruitment programs, policies, procedures, compensation, and employee benefits programs continue to attract and retain high performing, innovative, values-driven, informed, and passionate 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, Human Resources is committed to ensuring CAW's fair and equitable treatment of all employees, in accordance with legal and professional standards.

**EUM Attribute:** Employee and Leadership Development

Goal: To recruit, develop, reward, and retain a workforce that is high

performing, innovative, values-driven, informed, passionate, and diverse in a collaborative environment dedicated to continual learning and improvement and the professional and leadership development of all employees, while maintaining competitive pay and employee benefits within the budgetary requirements of the

Utility.

**Objective 1:** Maintain "time to fill" vacant positions at or below SHRM standard of seven weeks

# **2017 Accomplishments**

2017 continued to be a high volume year for recruitment, with 31 positions filled in the first seven months of the year. Even with our very thorough, multi-faceted recruitment and qualification processes, positions were still filled, on average, within 7.3 weeks and just slightly above the SHRM benchmark.

**Objective 2:** Maintain annual turnover rate at or below 10%

# **2017 Accomplishments**

CAW's turnover rate for the last five years has averaged just under 7.0%, far below the national five year average of 16.5% for state and local government employers. Projected retirements of the baby boomer generation continue to be reflected in an uptick in CAW's turnover rate, estimated at 7% for 2017, still less than half of the estimated national average for state and local governments.

Objective 3: Maintain cost of benefits below the adjusted Bureau of Labor Statistics/ Society for Human Resource Management (BLS/SHRM) national average of 29.2% (2016)

#### **2017 Accomplishments**

CAW's estimated 2017 Cost of Benefits as a percent of total compensation (wages + benefits) decreased slightly to 29.9%, just above the BLS/SHRM national average. Cost drivers included increases in group health insurance premiums, APERS employer contributions, and our self-funded workers' compensation expenses.

# **Objective 4:** Implement Diversity and Inclusion training and programs

### **2017 Accomplishments**

A strong commitment to Diversity and Inclusion (DIT) initiatives continues throughout the organization. The DIT rolled-out a new initiative to celebrate National Diversity Month in late 2015 by interviewing a diverse group of CAW employees and spotlighting one participating employee via intranet/email each day. The "Spotlight" activity was so well received by employees that the program participation was doubled in 2016. For 2017, the DIT will continue the "Spotlight" program during National Diversity Month based on high levels of continued interest by employees. Additionally, the DIT will begin an initiative to help employees discover their heritage through a genealogy program.

CAW proudly holds the distinction, for the sixth year in a row, of being the largest participating organization in the JCA Walk for commUNITY, with 71 CAW walkers participating and the most funds raised. CAW continued our "Jeans Thursdays" fundraiser with proceeds benefiting JCA's annual drive to support their Teen Leadership Programs.

**Objective 5:** Ensure employee competency through job-related certification and tracking percentage of those meeting job certification requirement(s)

# **2017 Accomplishments**

CAW employees are committed to meeting and exceeding the professional standards of their jobs. The number of employees holding designated certifications exceeded the level of job certifications required by the Utility by an impressive 16% in 2017.

**Objective 6:** Ensure employee competency through training, meeting QualServe standard of 20.0 hours of training per employee annually.

#### **2017 Accomplishments**

Employees will receive an average of 29 hours of training (estimated) for 2017, resulting from an increased focus on employee development and supervisory training. VIP<sup>2</sup> training, designed to cultivate a high performing, innovative, values-driven, informed, and passionate workforce, was conducted in phases for all management staff (two day training), supervisory and lead staff (one day training), and all employees (half day training) at the utility. Formalized succession planning, supervisory training, and employee development programs will continue to be focus areas in 2018.

**Objective 7:** Support workforce succession preparedness through internal advancement of employees and tracking number of non-entry level positions filled internally.

# **2017 Accomplishments**

CAW continued to focus on internal advancement in 2017, with 52% of nonentry level positions filled internally. The Utility will continue to focus on workforce succession preparedness in 2018, facilitated in part by our new VIP<sup>2</sup> initiatives.

# Other 2017 Accomplishments

In addition to the goals and accomplishments identified above, Human Resources played a significant role in completion of the following important projects in 2017:

- Implementation of a new skills based pay system for key positions in our Water Production and Distribution Departments, providing greater opportunities for advancement and increasing employee job satisfaction and engagement.
- Enhancements to retirement savings programs, which included the hiring of a
  fiduciary team to advise and assist on administration of CAW retirement savings
  programs, as well as recordkeeping platform changes which provided reduced
  recordkeeping fees and lower expenses, a stronger investment lineup, and
  enhanced customer service for our plans.
- Creation of CAW Leadership Guide, a quick reference brochure outlining CAW's mission and values and the supervisor's/leader's responsibilities in supporting each.
- Employee Satisfaction Survey

# **2018 Goals**

Human Resources will continue to focus on implementation of succession planning and workforce preparedness programs in 2018, including VIP<sup>2</sup> initiatives, leadership development, supervisory training for new and existing supervisory staff, and employee career counseling, training ,and development.

Planned initiatives also include greater automation of Human Resources processes, including employment applications, performance evaluations, and communication of the value of total compensation to employees.

The Utility will maintain an employee Cost of Benefits as a percent of total compensation of 29.5%, just above the BLS/SHRM national average of 29.2%.

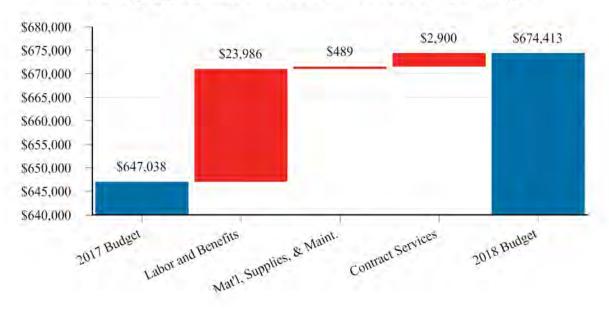
Performance Measures	2016 Actual	2017 Estimated	2018 Budget
Time to Fill (Weeks)	7.0 wks	7.3 wks	7.0 wks
Turnover	10.6%	7.1%	6.8%
Cost of Benefits*	29.7%	29.9%	29.5%
Diversity and Inclusion Training	Yes	Yes	Yes
Job-related Certification	122%	116%	116%
Employee Training (Hours)	18.6 hrs	29 hrs	20 hrs
Internal Advancement	78%	52%	65%

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

# **Human Resources - Expenditure Summary**

	2016 Actual	2017 Projected	2017 Budget	2018 Budget
Labor and Benefits	\$ 568,865 \$	556,265	567,994 \$	591,980
Materials, Supplies, and Maintenance	20,644	36,810	39,994	40,483
Contract Services	40,397	48,635	39,050	41,950
MWM Transition Cost	71,765	_	_	_
Total Expenses	 701,671	641,710	647,038	674,413
Total Capital Expenditures	_		_	_
Total Human Resources	\$ 701,671 \$	641,710	647,038 \$	674,413

# Change by Natural Classification - 2017 to 2018 Budget



# 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, 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; Utility sustainability objectives; CAW website (www.carkw.com); social media venues such as Twitter messaging (http://twitter.com/carkw), a Facebook page, Blog, and You Tube video broadcast messaging. Public Affairs and Communications also provides direction on consumer and other research, and 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; and (5) to maintain relations that reflects the Utility's culture as a hometown utility and contributing corporate community partner.

**EUM Attribute:** Stakeholder Understanding and Support

Goal: Actively involve stakeholders to engender understanding and

support, and disseminate information through multiple venues to

optimize audience diversity and outreach

**Objective 1:** Revise Help to Others (H2O) fund program policies and seek additional funding resources for the H2O fund to resume program operations.

# **2017 Accomplishments**

The Utility is currently reviewing alternative programs to achieve its customer assistance goals.

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

#### **2017 Accomplishments**

In 2017, total consumer reach continued to increase through targeted social media marketing strategies. Additional social media outlets were acquired. Strategies for outreach and education in 2018 will continue.

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

# **2017 Accomplishments**

The annual Water Quality Report was issued on May 16, 2017. Beginning May 31, 2017, 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 Customer Information System.

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

#### **2017 Accomplishments**

Beginning in April 2017, public notifications on new ancillary service rates were released to consumers through billing statement messages and the Utility's website.

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

# **2017 Accomplishments**

Outreach and education for Maumelle residents continues through public meeting updates concerning the merger of Maumelle Water Management and CAW, which went into effect in March of 2016.

**Objective 6:** Issue a comprehensive, industry-focused publication available to consumers at pick up locations throughout the metropolitan area.

# **2017 Accomplishments**

The department continues to collect information, and the process has begun to create this publication for 2018.

**Objective 7:** Issue responses to Arkansas Freedom of Information Act requests within required time frames.

# **2017 Accomplishments**

100% compliance in 2017

**EUM Attribute:** Customer Satisfaction

**Goal:** 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%.

#### **2017 Accomplishments**

In CAW's previous comprehensive satisfaction survey, 94% of respondents were satisfied with the overall performance of the utility. The next survey will be conducted in 2018.

**Objective 2:** Compare CAW water rates to those of similar water utilities within the region by residential rate per 7500 gallons/month.

# **2017 Accomplishments**

Continued review of annual water rate studies available through utility financial, rate, and management consulting services affords opportunities to promote consumer awareness on water industry averages.

# Other 2017 Accomplishments

In addition to the goals and accomplishments identified above, Public Affairs and Communications has seen changes and improvements in other areas in 2017.

Following the department's addition of the Education and Outreach Specialist position, CAW was the recipient of the No Child Left Behind grant which allowed the utility to successfully impart valuable water-related curriculum to teachers throughout Pulaski County.

The department has worked closely with the Little Rock Zoo and Arkansas Department of Environmental Quality (ADEQ) to exhibit a 1,500 square-foot maze about water's journey from forest to faucet. Available to the public from May through August 2017, the exhibit provided education for over 100,000 patrons in central Arkansas.

# **2018 Goals**

Public Affairs and Communications will continue to identify opportunities to engage with community stakeholders and consumers in an effort to provide higher levels of education about water related issues, value, and the importance of high-quality water for economic development in the CAW service area and beyond.

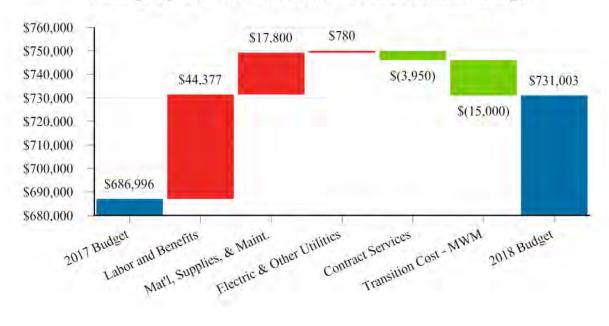
Also, CAW will expand its communications programs to focus on current CAW resources, including its staff, facilities, lakes, and the final product, its water. CAW is proud of the water it produces and those who produce it, so a focus on sharing information about the quality of water and those who produce it will continue as a priority.

Performance Measures	2016 Actual	2017 Estimated	2018 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

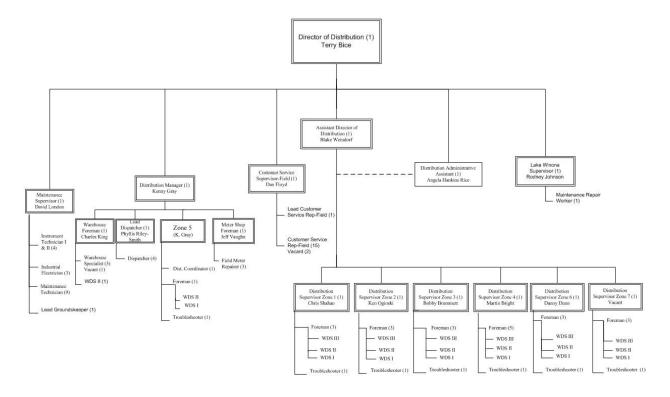
# **Public Affairs and Communications - Expenditure Summary**

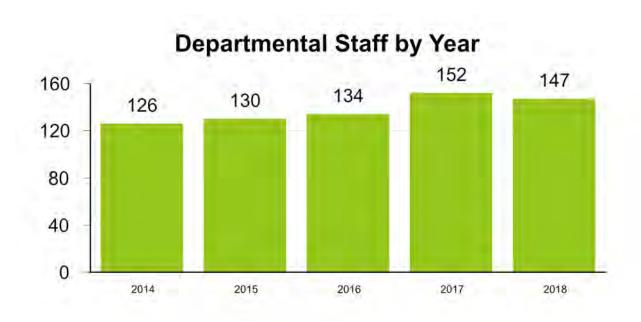
	2016 Actual	2017 Projected	2017 Budget	2018 Budget
Labor and Benefits	\$ 85,552	\$ 357,365	\$ 318,196	\$ 362,573
Materials, Supplies, and Maintenance	\$ 159,358	\$ 169,935	\$ 184,700	\$ 202,500
Electric and Other Utilities	\$ 1,400	\$ 930	\$ 900	\$ 1,680
Contract Services	\$ 80,055	\$ 94,083	\$ 157,200	\$ 153,250
MWM Transition Cost	22,166	8,143	20,000	5,000
Other	6,485	7,000	6,000	6,000
Total Expenses	355,016	637,456	686,996	731,003
Total Capital Expenditures	_		_	_
Total Communications & Public Affairs	\$ 355,016	\$ 637,456	\$ 686,996	\$ 731,003

# Change by Natural Classification - 2017 to 2018 Budget



# **DISTRIBUTION DEPARTMENT**





### 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 in nature, the goal of the Distribution Department is simple - to provide dependable water service and high quality water to CAW customers. In order 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 their 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.

**EUM Attribute:** Infrastructure Stability

**Goal:** 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.

### **2017 Accomplishments**

The Distribution Department continued the 2-inch galvanized pipe replacement program implemented in 2015. This program focuses on replacing 2-inch 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 linear feet of galvanized 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 galvanized 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 2-inch galvanized pipe replacement program, have reduced the

number of spontaneous breaks per 100 miles of galvanized pipe from 187 breaks in 2015, down to 149 in 2016. This trend continues in 2017 and is projected to be at 130 breaks per 100 miles of pipe on galvanized pipe by year-end.

Additionally, spontaneous main breaks system wide continued to decrease in 2017. 2016 recorded 19.4 spontaneous main breaks per 100 miles of pipe, down from 20.6 in 2015. Distribution estimates a reduction to 18.5 spontaneous main breaks per 100 miles of pipe for 2017.

**Objective 2:** Reduce the number of unplanned outages from previous year.

### **2017 Accomplishments**

The Distribution Department continues efforts to minimize emergency outages, repair main breaks without outages, and pre-schedule required outages whenever possible. Distribution expects to reduce the number of unplanned outages from the prior year by five occurrences, from 41 in 2016, to 36 in 2017. This is based on observed trends through September 1, 2017.

**EUM Attribute:** Operational Optimization

**Goal:** Maximize resource efficiency

**Objective 1:** Reduce the number of customers affected by unplanned outages.

### **2017 Accomplishments**

The Distribution Department implemented a system-wide valve inspection program in July 2013 which was completed in 2016. The objective is to reduce the number of customers affected by outages as well as property damage, by inspecting and ensuring each of the 34,401 valves in the distribution system is locatable and operable. Through our three year inspection program, we discovered 1,052 valves that were covered and inoperable and deemed to be 'unlocatable'. In 2017, Distribution personnel worked to locate and inspect these 'un-locatable' valves, beginning with the larger sized to smaller sized valves. Staff has located and inspected a total of 100 'unlocatable' valves in 2017. As part of the 2020 Strategic Plan, Distribution will continue to work toward having all of these valves operational by 2020. Through these efforts, Distribution reduced the number of customers affected by unplanned outages from 986 in 2016 to a projected 900 in 2017.

**Objective 2**: Maintain unaccounted for water below AWWA Benchmark (median = 9.5%) and Arkansas Department of Health action level > 15%

# **2017 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. 2017 saw an increase in the 12-month rolling average of unaccounted for water through September 1, 2017, which is currently at 11%. Distribution is aggressively working to reduce this number below the AWWA benchmark of 9.5%

**EUM Attribute:** Financial Viability

Goal: Manage budget effectively

**Objective 1:** Schedule and complete at least 85% of approved capital budget projects

### **2017 Accomplishments**

The Distribution Department budgets capital projects each year based on what can be realistically accomplished within the funding year. Based on trends through September 1, 2017, Distribution anticipates completing 97% of the capital projects budgeted for 2017 at a cost of \$4.33 million.

**Objective 2:** Reduce O&M Costs associated with Main Breaks

#### **2017 Accomplishments**

Due to increased infrastructure stability from our asset management program, the Distribution Department has been able to reduce the O&M budget for repairing main breaks. Distribution anticipates spending \$785,000 on main break related projects in 2017 compared to \$817,000 in 2016. Additionally, this amount is estimated at \$775,000 in 2018.

### **Other 2017 Accomplishments**

**Meter Change Out:** In addition to the goals and accomplishments identified above, Distribution anticipates replacing 5,000 meters in 2017, in accordance with the meter replacement program that replaces 5/8" meters every 16 years or sooner for larger meters. An additional 1,850 5/8" meters are projected to be changed by Customer Service as part of routine operations, resulting in 6,850 5/8" meters changed in 2017.

**Merger with Maumelle Water Management:** Distribution continued its efforts in Maumelle following the successful merger with MWM in 2016. Specifically, Distribution has focused

on service line replacements in Maumelle due to their condition. Distribution replaced 164 services in 2016 and should replace 145 services in Maumelle in 2017; the two year total for this work is just over \$400,000.

**Integration of Customer Service Field Operations:** CS Field Operations were incorporated into the Distribution Department in 2016 in order to best serve our customers with the most efficient utilization of existing personnel and resources. Since this change, the completion rate and accuracy of field orders both increased slightly in 2017 (approximately 0.2 and 0.1 percent respectively). Additionally, the average number of orders worked per day by CS Field Reps increased from 47.96 to 48.55 in 2017.

**Safety:** In 2016, the Distribution Department experienced more lost time accidents and workers compensation claims than any of the previous three years. At the end of 2016, the department refocused its safety efforts by increasing training, tailgate talks, and supervisor accountability. These efforts continued in 2017 in order to increase the safety culture within the department. While the claims have decreased slightly, Distribution remains committed to establishing a safer work environment for its staff.

**Hydrant Inspection:** The department completed the inspection of all the Fire Hydrants in the system in 2017. Staff started the inspection of 10,990 fire hydrants south of the river in August 2016; then moved to the north side of the river in January 2017, inspecting an additional 4,979 hydrants. Fire hydrant inspection was completed in May 2017, with a total inspection of 15,969 hydrants.

**GPS Mapping of Meter Locations:** The department began gathering GPS locations of meters in May of 2017. Using three employees, GPS data points are collected on an average of 450 meters per day. There are currently 149,561 meters in the CAW system, of which approximately 70,000 remained unmapped at the beginning of 2017. The department plans to map 35,000 meters in 2017 and the remaining 35,000 in 2018. Upon the completion of this task, staff plans to use this information to work towards a customer outage reporting program.

**Service Line Material Verification:** With renewed attention on lead within water systems, CAW began reviewing its records regarding its Lead Service Replacement program which dates back as far as the 1980s. As a result of this review, staff discovered that 47,000 services had a material type that was listed as unknown. In 2016, Distribution began verifying unknown service material type, specifically on services that were installed prior to 1950. The department verified 2,850 services in 2016 and will verify an additional 5,500 services in 2017.

#### **2018 Goals**

Beginning in early 2018, Distribution will flush the entire Maumelle water system and strategically bring CAW Water into Maumelle when the Maumelle Transmission Main is placed in service. The department will change out all of the meters in Maumelle in 2018, converting them from 'gallon' meters to hundred cubic feet (ccf') meters that are standard

throughout the CAW system. Also in 2018, Distribution will continue to pursue efficiency gains enabled by the integration of CS Field operations into the department. The department should complete GPS mapping of meter locations in order to improve its customer service response. Distribution will continue its 2-inch galvanized pipe replacement program with an additional 14,000 feet in 2018, which should contribute to reduced main breaks, fewer unplanned outages, and a smaller number of customers affected by breaks. Distribution will also work in 2018 on strategic plan initiatives including Lead Service Line Replacement Program, 2-inch Galvanized Replacement Program, Leak Detection/Non-Revenue Water Audit, as well as Employee Performance and Training Enhancement.

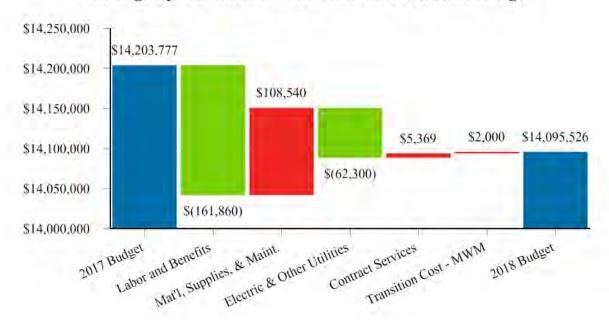
Performance Measures	2016 Actual	2017 Estimated	2018 Budget
Replace 2-inch Galvanized Pipe (Feet)	14,300	12,500	14,000
Number of Main Breaks per 100 Miles of Pipe	19.4	18.5	18.0
Reduce the Number of Unplanned Outages	41	36	32
Reduce the Number of Customers Affected	986	900	850
Locate and Inspect 'Un-locatable' Valves	5,118	100	380
Unaccounted For Water ≤ 9.5%	10.0%	11.6%	9.5%
Complete Capital Budget Projects	95%	97%	97%
Main Break O&M Costs	\$817k	\$785K	\$770K
Completed Work Orders	142,072	135,000	140,000
Workers Compensation Claims	13	11	8
GPS Mapping of Meter Locations	12,816	35,000	35,000

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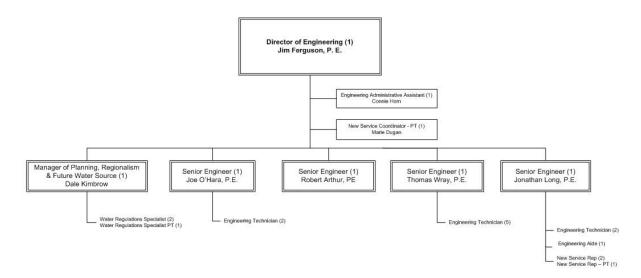
# **Distribution - Expenditure Summary**

	2016	2017	2017	2018
	Actual	Projected	Budget	Budget
Labor and Benefits	9,178,368	9,278,451	10,244,140	10,082,280
Materials, Supplies, and Maintenance	3,183,752	3,251,111	3,170,660	3,279,200
Electric and Other Utilities	93,456	118,897	123,500	61,200
Contract Services	657,920	635,295	650,477	655,846
MWM Transition Costs	_	5,000	15,000	17,000
Total Expenses	13,113,496	13,288,754	14,203,777	14,095,526
Total Capital Expenditures	3,357,385		4,330,000	4,327,400
Total Distribution	16,470,881	13,288,754	18,533,777	18,422,926

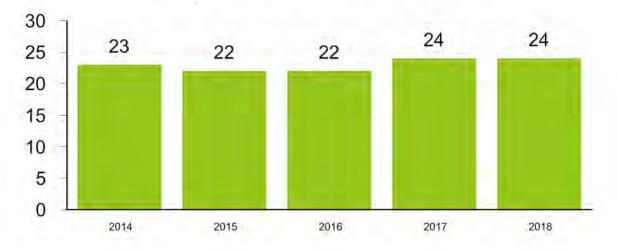
# Change by Natural Classification - 2017 to 2018 Budget



# **ENGINEERING DEPARTMENT**



# **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 four sections: Engineering and Planning, Cross-Connection Control Program (CCCP), New Service, and Regionalism & Future Water Source.

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 a Capital Expenditure. The use of outside consulting engineers for design support is limited to capital projects involving specific technical matters that are beyond our Staff Engineers' areas of competence or time restrictions.

The CCCP section monitors CAW customer compliance with Arkansas Department of Health 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 Customer Service Information System, Cityworks work-order system, GIS mapping computer systems, and various Engineering Department databases.

The Regionalism and Future Water Source Section serves as the Utility's liaison to neighboring water systems, wholesale customers, and large volume customers to ensure that CAW is meeting the needs and reasonable expectations of major water users. The Manager of Planning, Regionalism and Future Water Source also represents CAW on the MAWA Board of Directors. By establishing regular communication and managing relations with wholesale entities, large volume accounts, and water quality sensitive accounts, CAW is able to promote fairness, provide a high level of service to these classifications of customers, and be responsive to their concerns.

**EUM Attribute:** Operational Resiliency

Goal: 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.

# **2017 Accomplishments**

The MWM/CAW Merger Agreement requires the construction of a 30-inch transmission main connecting CAW's existing facilities to the Maumelle service area. The Engineering Department and its consulting engineer performed the design of the transmission main and opened bids on the project on December 20, 2016. Construction of the 5.5 mile long pipeline began in January 2017 and will be completed for use in December 2017. Engineering provided construction phase engineering services and construction inspection during the duration of the pipeline construction.





The Engineering Department has managed the development of an extensive PER by a contracted consulting engineer detailing work totaling \$24.9 million in costs necessary for treatment process and structure/building improvements and rehabilitation needed for the continued productive use of the Ozark Point Plant. This PER will be used to effect detailed engineering design of these improvements in 2018 with construction expected to commence in late 2018/early 2019.

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 1 of this project bid in late 2017 and will begin the improvement work in 2018. Phase 2 is expected to bid in 2021.

**Objective 2:** Continue CAW's work with MAWA, as the Alliance continues studies, investigations, and progress toward securing water rights for the entirety of Mid-Arkansas region.

# **2017 Accomplishments**

CAW has made an official request to the U.S. Army Corps of Engineers to purchase the remaining 100 MGD DeGray Lake raw water allotment. The request is under review, with the purchase expected to be completed in 2018.

The ongoing water right study and corresponding agreement for water storage from Lake Ouachita by MAWA is expected to be executed in 2017.

**Objective 3:** 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.

# **2017 Accomplishments**

Replaced approximately 23,600 linear feet of galvanized, asbestos-cement, and cast iron pipe through the combination of contracted work (11,100 linear feet) and work performed in-house by the Distribution Department (12,500 linear feet). Galvanized, asbestos-cement, and cast iron pipe contribute to the majority of spontaneous water main failures in the CAW system.

Completed the design for more than \$2.0 million in water main replacements for compliance with the MWM merger agreement. This work has been split into two phases. Both phases began construction in 2017 and will complete in 2018.

# **Other 2017 Accomplishments**

In 2017, the Engineering Department reviewed approximately 25 street and drainage projects initiated by the Arkansas Highway and Transportation Department, 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 four capital construction projects and managed nine projects constructed by CAW crews for water line relocations in 2017. While relocations do result in new infrastructure installation, these projects are not dictated by CAW system needs or by 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 Utility was able to accommodate a portion of these relocations in 2017 using excess working capital funds which were allocated to a number of relocation projects starting in 2015.

Installation of 1,600 LF of 20-inch steel pipe transmission main attached to the new Broadway Bridge over the Arkansas River was completed in 2017. This was a \$1.4 million relocation project with the Arkansas Highway and Transportation that was initiated in 2015 and completed in 2017.

Engineering completed a feasibility study (delayed from 2016 to 2017) for using raw water from the Arkansas River as an emergency water supply. This study, prepared under contract by a consulting engineer, was a recommendation of the Vulnerability Assessment completed in 2014-2015. The study evaluated the quantity of water available in the river for emergency use, identified a preferred location for withdrawal, and estimated costs of transporting water from the intake site to the treatment plants.

In 2017, Engineering completed the design of a significant water main relocation project along Counts Massie Road in Maumelle and North Little Rock for street improvements that will begin construction in late 2018.

#### **2018 Goals**

Engineering plans to oversee the replacement of approximately 30,000 linear feet of old, high maintenance galvanized, asbestos-cement, PVC, and cast iron pipe in 2018. Approximately one half of this footage will be replaced through contracted capital jobs, and the second half will be replaced by the Distribution Department using in-house forces.

An estimated 30 street, road, and drainage improvement projects initiated by the Arkansas Highway and Transportation Department and the cities of Little Rock, North Little Rock, Sherwood, and Maumelle will be reviewed, many of which could require the design of water facility relocations.

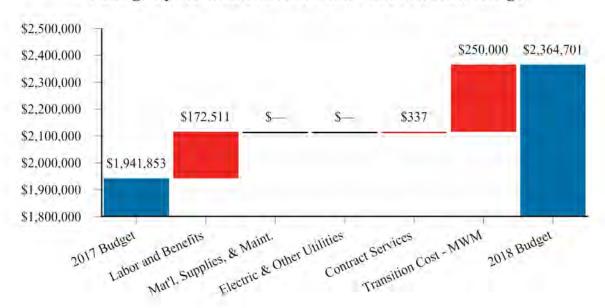
Engineering will be managing the detailed engineering design of the Ozark Point Plant Rehabilitation and Improvements project. This project is scheduled to be designed by the selected consulting engineer during 2018. Engineering will be managing the Phase 1 construction of the Wilson Plant High Service Pump Station No. 1A that is scheduled to start in 2018.

Performance Measures	2016	2017	2018
	Actual	Estimated	Budget
Galvanized, Asbestos Cement, and Cast Iron Pipe Replacement (linear feet)	21,670	23,600	25,000

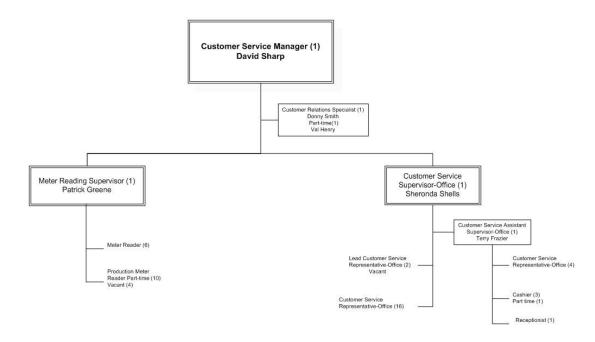
# **Engineering – Expenditure Summary**

	2016	2017	2017	2018
<u>-</u>	Actual	Projected	Budget	Budget
Labor and Benefits	1,626,266	1,730,762	1,826,337	1,998,848
Materials, Supplies, and Maintenance	52,238	63,591	73,460	73,460
Electric and Other Utilities	4,480	5,228	5,760	5,760
Contract Services	16,874	38,776	36,296	36,633
MWM Transition Costs	_	_		250,000
Total Expenses	1,699,858	1,838,357	1,941,853	2,364,701
Total Capital Expenditures	6,735,120		15,904,000	19,704,200
Total Engineering	8,434,978	1,838,357	17,845,853	22,068,901

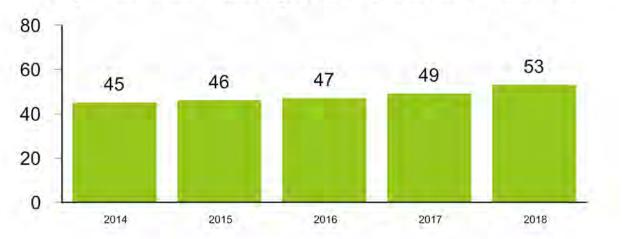
# Change by Natural Classification - 2017 to 2018 Budget



# **CUSTOMER SERVICE DEPARTMENT**



# 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, cashiering, and pay agents.

### **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.

**EUM Attribute:** Customer Satisfaction

Goal:

To provide customer service that exceeds expectations

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

### **2017 Accomplishments**

As of July 31, 2017, CAW's Call Center fielded over 120,000 customer calls with an average abandonment rate slightly over utility goal (4.0%) at 4.39%. This call volume represented an increase of over 6,000 calls more than the same time last year which was mostly attributed to the incorporation of the former Maumelle Water Management service area. Even with additional volumes, customer service call performance is trending flat compared to last year (4.39% v. 4.37%).

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

### **2017 Accomplishments**

The average speed of answer as of July 2017 was slightly higher than goal at 50.56 seconds (goal <:40 sec). This is generally attributed to higher than expected turnover and employee leave, coupled with an increase in call volume. Recruiting plans are in place to hire additional staff in order to trim that metric down to a more acceptable level by year end.

# Other 2017 Accomplishments

Customer Service introduced a new interactive customer registration system in the lobby of the JTH facility. The system is an updated progressive platform that allows customers to register to meet with either Customer Service or New Service depending on their business needs. A video display board allows employees to offer more personal service, as the registration software allows them to recognize customers by name versus the previous method of a customer taking a number and waiting to be called by number. The video display board also allows CAW to share appropriate video content with customers while they wait. The display board allows increased educational opportunities with regard to discussing relevant topics such as wise watering tips, freeze precautions, leak investigations, or any other subject via CAW's You Tube channel.

CAW entered into a business agreement with Service Skills.com, an all-in-one, results-driven communication training solution for companies that need to improve communication, both internally and externally. Service Skills offers online course curriculum that teaches world-class customer service skills. These additional training resources provide employees the ability to learn better questioning techniques, how to use active listening skills, and problem resolution skills. Utility employees have already put in over 100 additional hours of training since entering into this agreement.

# **2018 Goals**

Customer Service is currently undertaking a staffing initiative to replace headcount lost through attrition. Additional cross training will be conducted in order to better handle customer call volume spikes. Personnel in Finance and Cashiering will be trained to assist on the phone during peak call times. Finance and New Service will also be trained to assist with offline customer service duties. This will help better meet performance metrics while having more redundancy in several operational positions.

Customer Service is currently assisting Distribution in completing the final phase of the touch read meter replacement project. The utility has approximately 88 large usage customer meters that remain in need of upgrade due to aging touch read sensor technology that is no longer supported by the manufacturer. Meters are being changed to radio read technology which will allow for drive-by reading retrieval and reduce reading cost by eliminating the need of additional work orders and crew dispatch due to confined space protocol required for many commercial meters which are located in underground vaults.

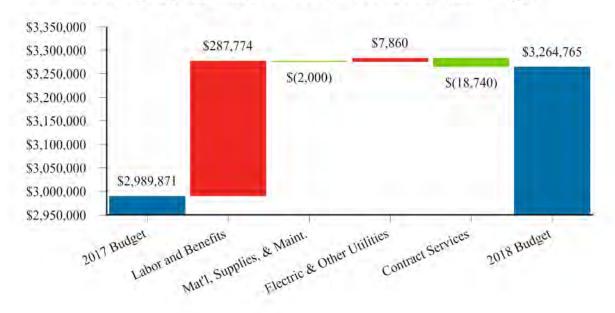
Customer Service and Information Services are beginning planning phases to research and select a new meter reading hand held device. The current tool used by CAW is the Itron FC300. This is a handheld computer device which can be used for both direct entry or radio read data retrieval. Itron is ending support of this tool in 2020; thus CAW will need to find a replacement option. Staff will launch a search initiative for a new device during the 4th quarter 2017. The new device will be smart phone based and have the capability to gather usage data via direct entry or radio retrieval. It will also have photo capability as well as GPS functionality.

Performance Measures	2016 Actual	2017 Estimated	2018 Budget
Abandoned Calls Percentage	3.94%	5.17%	<4.00%
Average Call Answer Time (in seconds)	46	67	<40
Paperless Customers	9262	12681	16400

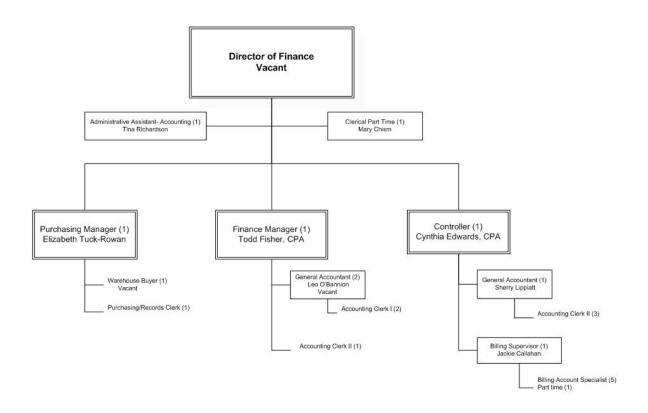
# **Customer Service - Expenditure Summary**

	2016	2017	2017	2018
	Actual	Projected	Budget	Budget
Labor and Benefits	2,638,760	2,743,361	2,899,981	3,187,755
Materials, Supplies, and Maintenance	103,788	43,472	41,040	39,040
Electric and Other Utilities	12,639	6,369	1,440	9,300
Contract Services	24,302	95,927	47,410	28,670
Other	_	_	_	_
Total Expenses	2,779,489	2,889,129	2,989,871	3,264,765
Total Capital Expenditures	94,898		272,000	85,700
Total Customer Service	2,874,387	2,889,129	3,261,871	3,350,465

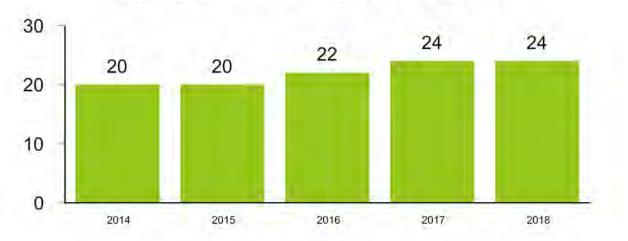
# Change by Natural Classification - 2017 to 2018 Budget



# FINANCE DEPARTMENT

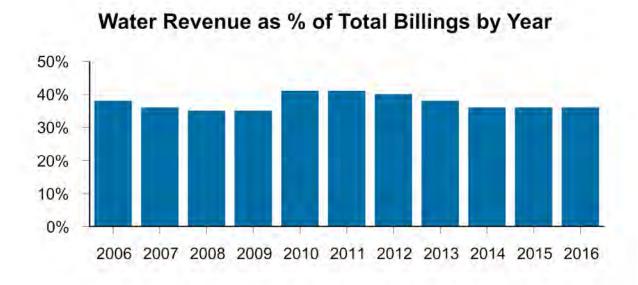


# Departmental Staff by Year - Finance



# 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 24 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 135,000 metered accounts, 14 billing partners, and monthly billings that collectively total over \$150 million annually.



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, bondissue 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.

**EUM Attribute:** Financial Viability

**Goal:** To 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

### **2017 Accomplishments**

Finance consistently met this goal during 2017, providing the financial reports by the target deadline.

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

### **2017 Accomplishments**

Finance met this goal again in 2017, receiving the GFOA Distinguished Budget Award for the eighth consecutive year.

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

# **2017 Accomplishments**

In 2017, CAW received the GFOA Certificate of Achievement for Excellence in Financial Reporting for the eighth consecutive year.

**Objective 4:** Finalize and distribute CAFR by April 30

### **2017 Accomplishments**

Finance met this goal once again in 2017. The 2016 CAFR was approved by the Commission April 13th, 2017.

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

# **2017 Accomplishments**

Finance has met this goal each of the last seven years. The 2018 Financial Plan maintains net revenue coverage above this target at 246%.

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

### **2017 Accomplishments**

CAW has maintained days cash on hand at or above 150 days continuously since 2010. CAW is projected to end 2017 with 230 days cash on hand is budgeted for 183 days cash on hand to end 2018.

**Objective 7:** Maintain debt utilization at or below AWWA benchmark (currently < 32%))

### **2017 Accomplishments**

CAW has continuously maintained a debt utilization ratio well below this benchmark over its history. This continued in 2017 with a projected debt utilization of 25.97%. Budgeted debt utilization for 2018 is 27.70%

# Other 2017 Accomplishments

Finance, Customer Service, and Information Services staff completed the transition of MWM accounts from the former MWM billing system to CAW's EnQuesta billing system in June 2017. This transition involved a large amount of data validation as MWM accounts were assigned CAW formatted account numbers and converted to a format consistent with other bills generated by EnQuesta. Both billing systems were run in parallel with one another to ensure all billing calculations were accurate prior to making the system conversion.

With the assistance of Engineering and Water Production staff, Finance completed work with MR Valuation Consulting, LLC which provided updated insurance values assigned to assets at Lake Maumelle, Lake Winona, and both treatment plants. These values were used as a basis for CAW's 2017-2018 insurance policy renewal.

Finance managed the acquisition and deployment of a new budgeting and reporting system to replace existing systems that were being phased out by their manufacturer. The new system, Bl360, went live in June 2017 and has resulted in more efficient financial report preparation and compilation of data for the 2018 Financial Plan.

# **2018 Goals**

Finance will continue to enhance its financial reporting products by leveraging the capabilities of BI360. Dashboards will be developed to better communicate real-time performance information and additional data will be reviewed for possible inclusion into the data warehouse.

Staff will begin a project to replace CAW's current billing system, EnQuesta. This extremely critical project will rely on a cross-departmental team of CAW subject matter experts (SME) who will be tasked with determining necessary system requirements and assisting with

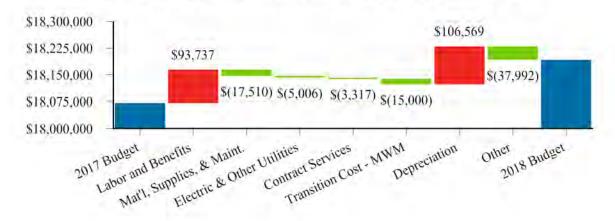
the integration of the selected system into CAW's operations. Department staff anticipates spending a significant amount of time on this project over the next 24 months.

Performance Measures	2016 Actual	2017 Estimated	2018 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	2.52	2.88	2.46
Days Cash on Hand	443	234	186
Debt Utilization	27.00%	25.97%	27.70%

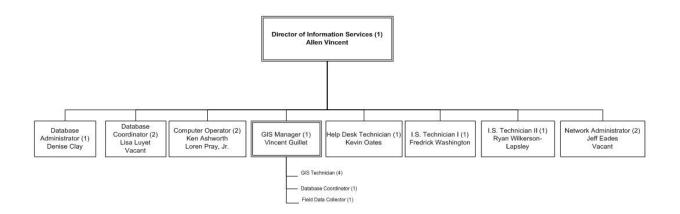
# **Finance - Expenditure Summary**

	2016 Actual	2017 Projected	2017 Budget	2018 Budget
Labor and Benefits	3,382,511	3,368,908	3,199,235	3,292,972
Materials, Supplies, and Maintenance	923,112	895,694	937,535	920,025
Electric and Other Utilities	155,401	109,756	114,736	109,730
Contract Services	986,152	989,868	1,051,692	1,048,375
MWM Transition Cost	52,302	26,473	15,000	_
Depreciation	12,303,048	12,665,956	12,414,266	12,520,835
Other	252,866	324,714	337,992	300,000
Total Expenses	18,055,392	18,381,369	18,070,456	18,191,937
Total Capital Expenditures	_	_	_	_
Total Finance	18,055,392	18,381,369	18,070,456	18,191,937

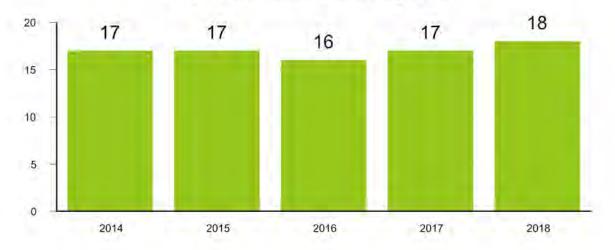
# Change by Natural Classification - 2017 to 2018 Budget



# **INFORMATION SERVICES DEPARTMENT**



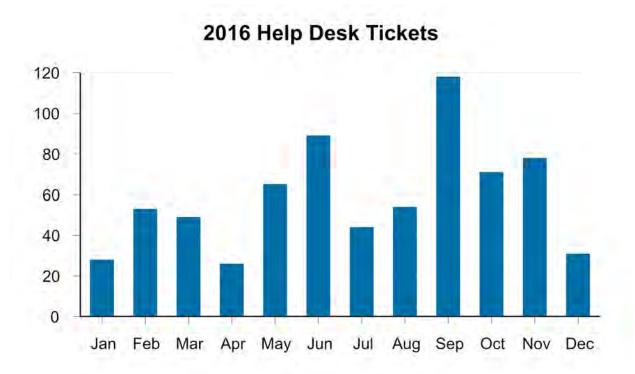
# **Departmental Staff by Year**

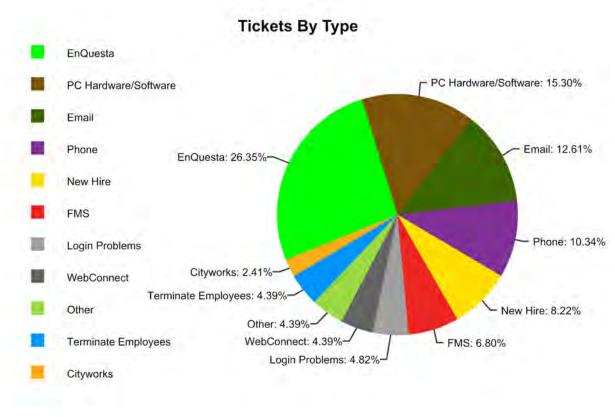


### INFORMATION SERVICES DEPARTMENT

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 (WAN) 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.





### Mission

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

**EUM Attribute:** Operational Optimization

**Goal:** Research and test current computer software and hardware that are

on the market so that CAW remains on the leading edge of automation that will cost-effectively improve the Utility's operations,

business practices, and service to customers.

**Objective 1:** Transition MWM billing to CAW's billing system EnQuesta

### **2017 Accomplishments**

In January 2017, testing began to convert billing of Maumelle customers to CAW's EnQuesta Billing system. After several months of testing, Maumelle customers were billed from EnQuesta in June 2017. During the month of July, the North Little Rock Waste Water utility Average Winter Consumption (AWC) was tested and went live in August 2017 for MWM accounts.

### **Objective 2:** Improve Utility WAN / Phone Circuits

#### **2017 Accomplishments**

During 2017, several improvements were made to the WAN. The Wireless Access Points (APs) were upgraded after eight years of use. These new APs provide faster and more secure connections to the network, plus provide access to the Internet through a guest account without connecting to the corporate network. The SCADA connection between the Wilson Plant and the Ozark Point Plant was upgraded to a fiber connection. The previous connection was a copper T1 circuit running at 1.5Mb; the new connection is a fiber circuit running at 10Mb for increased speed and reliability. In March of 2017, Session Initiation Protocol (SIP) trunks replaced the old copper circuits that provided phone service for CAW. A SIP trunk is Voice over Internet Protocol (VoIP). The trunks come in on fiber at both the JTH facility and at Clearwater for failover and provide increased speed and reliability compared to the technology they replaced.

#### **Objective 3:** Expand Existing GPS Fleet Tracking System

### **2017 Accomplishments**

In early 2017, the GIS Section completed an expansion of CAW's GPS fleet tracking system. CAW added 35 new vehicles to the system, bringing the total to 85. Each vehicle is outfitted with a GPS receiver that is constantly transmitting the vehicle's location, idle time, speed, and many other bits of data. Each vehicle can be viewed in real-time on any computer or mobile device that is accessed by authorized CAW users. This allows executives, managers and dispatchers to have a live view of where our field technicians are at any given time in our service territory. Since the system is integrated with CAW's GIS maps, the vehicle positions can be compared for proximity to work requests, customer needs, and emergency response. The data is continually analyzed by cloud-based computers so managers can be alerted about activities such as speeding, harsh driving, vehicles inside or outside of designated areas, and/or excessive idling. Reports can be generated on-the-fly, or emailed on a schedule, that detail a driver's performance, track fuel economies, track number of stops, along with many other variables. There is also a play back function to allow a user to view a simulation of a vehicle as it has traveled over a period of time.

# **Objective 4:** Transition Field Crews to Tablets and Provide Real-Time Work Order Processing

#### **2017 Accomplishments**

A significant effort has been given this year to system upgrades in order to facilitate the transition from laptops to tablets. Tablet devices will allow our field crews to process work orders in Cityworks over a cellular network in real-time.

Staff has installed, configured, and tested two new versions of the Cityworks and GIS software. Many of the business processes that are currently in place will be impacted by the transition to mobile devices. Therefore, each workflow process must be reviewed, restructured, and tested prior to training and implementation. System administrators worked with software developers to migrate several custom, legacy GIS mapping tools from the current Desktop environment to the new mobile Cityworks map environment. The mobile device management system (MDM) has been expanded to track, manage, and automate setup and configuration for over 110 mobile devices. Workflows for editing Office documents are being finalized so that each Department's standard forms and other documents can be edited remotely and synchronized with the network server.

#### **Objective 5:** Develop an Updated ITMP

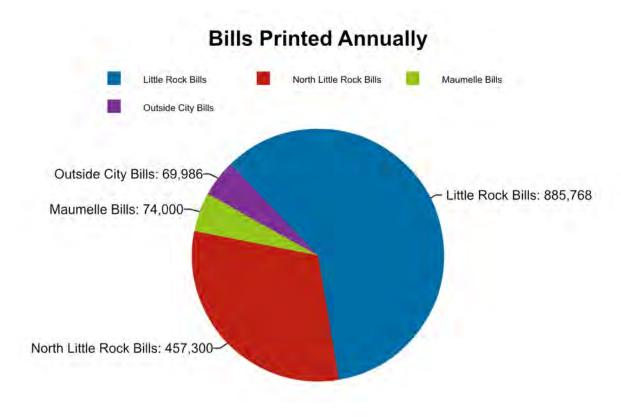
#### **2017 Accomplishments**

In order to support the 2020 strategic plan, CAW contracted with EMA, Inc. to develop an ITMP for the Utility. The first stage of the project was to evaluate the current CIS and make a recommendation to upgrade or replace the system. The CAW project team worked diligently to evaluate the existing "Meter to Cash" cycle. Staff also reviewed "Meter to Cash Leading Practices" employed by similar size utilities. CAW staff participated in several educational demonstrations from leading CIS vendors to see how "pain points" in the current CAW CIS are handled by other systems on the commercial market. Finally, the project team analyzed potential costs of implementing a new system, taking into account several scenarios. The result of the CIS review efforts was a recommendation from EMA to replace the current CIS system using a new vendor. CAW staff is currently working with EMA to develop a detailed list of CIS and billing partner requirements, and reengineering internal business processes so that a RFP can be issued for a new CIS implementation. Concurrently with the CIS assessment, EMA was tasked with analyzing the overall technology utilization by CAW and making recommendations for new systems, improvements to existing systems. as well as an option to provide implementation services. All CAW departments participated in interviews with EMA staff to gauge overall technology use and any deficiencies. It is anticipated that the final results for the overall IT Master Plan will be available by the end of 2017.

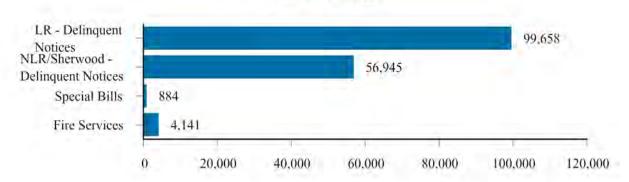
### **2018 Goals**

In 2018, IS will begin to implement the recommendations of the 2017 IT Master Plan. The CIS replacement will be top priority. Implementation of the new CIS is expected to play a prominent role in 2018 IS staff commitments. Other systems anticipated to be implemented as a result of IT Master Plan recommendations are Human Resources Information System, Document Management System, Project Management and Collaboration System, and a

Laboratory Information Management System. It is also anticipated that existing systems such as Automated Meter Reading, Project Management, GIS, Financial Information System (FIS), and Asset Management / Intelligent Water Systems will be enhanced and expanded as a result of the IT Master Plan. In addition to the IT Master Plan recommendations. IS expects to continue to expand the mobile computing environment that will allow our users to securely access more corporate data resources in real-time. A formal IT governance structure will also be implemented in 2018 to support prioritization of all of the planned and ongoing initiatives. 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. Expansion of the mobile operating environment will eliminate offline data transfer in favor of access to real-time, connected data transfer. This will save staff time and make operations more effective and efficient. IS will assist with one of the last steps in the Maumelle conversion, replacing the water meters from those that register in gallons to CAW standard CCF meters. This will involve changing rates applied to MWM customer accounts at the time of meter change from those calculated in gallons to those calculated in CCF.



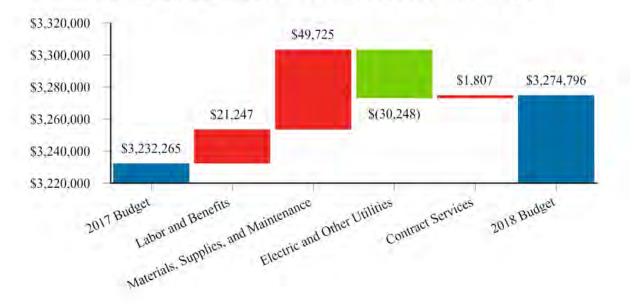
# **Non-Bill Printings**



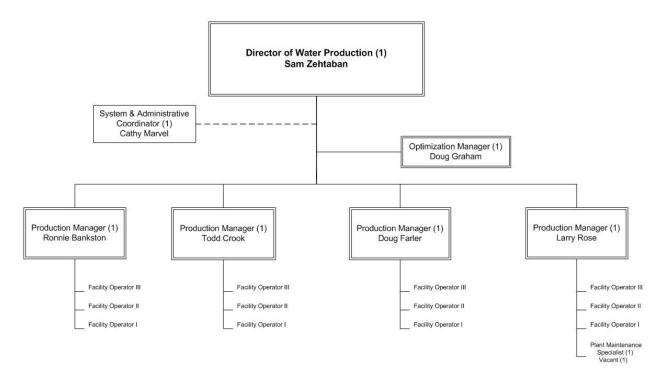
# **Information Services - Expenditure Summary**

	2016	2017	2017	2018
	Actual	Projected	Budget	Budget
Labor and Benefits	1,615,091	1,641,696	1,731,745	1,752,992
Materials, Supplies, and Maintenance	968,643	1,060,072	1,013,985	1,063,710
Electric and Other Utilities	477,314	441,832	467,900	437,652
Contract Services	24,194	18,467	18,635	20,442
Total Expenses	3,085,242	3,162,067	3,232,265	3,274,796
Total Capital Expenditures	165,559		640,000	4,950,000
Total Information Services	3,250,801	3,162,067	3,872,265	8,224,796

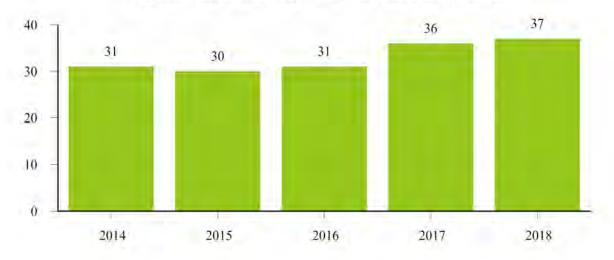
### Change by Natural Classification - 2017 to 2018 Budget



# WATER PRODUCTION DEPARTMENT



### Departmental Staff by Year - Water Production



### **Water Production Department**

The Water Production Department of the Utility 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 produce an average of 62 million gallons of potable water per day, with a peak daily level of 126 million gallons on July 30, 2012. On March 1, 2016, CAW incorporated MWM into its treatment operations. This included the addition of a water treatment system with 13 wells as the source water and operating personnel. On a day-to-day basis, Water Production manages and administers operations of the treatment plants, distribution system pumping stations, storage tanks, and SCADA system. All staff members, with the exception of three, 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 ADEQ 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 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.

**EUM Attribute:** Product Quality

**Goal:** Provide an uninterrupted supply of high quality potable water that

meets or exceeds all SDWA regulations.

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

#### **2017 Accomplishments**

Through continued monitoring and operation of treatment processes, the distribution system, and other Utility facilities, CAW maintained 100% SDWA compliance through August 7, 2017, 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 ≤ 0.3 Nephelometric Turbidity Units (NTUs); NTU is measurement of water clarity.

### **2017 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 Plant and Ozark Point Plants for turbidity limits identified above through August 7, 2017. The Department does not foresee any issue that would cause the Utility to deviate from this compliance trend.

**Objective 3:** 95% of monthly filtered water compliance monitoring samples ≤ 0.1 NTUs

#### **2017 Accomplishments**

Continue CAW's 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.

### Other 2017 Accomplishments

CAW furthers its proactive approach by gauging operations using the Partnership for Safe Water criteria to improve the quality of water delivered to customers by optimizing water system operations. Staff continues to evaluate additional methods to enhance performance and improve the longevity of the granular activated carbon filter caps at Ozark Point Plant. A SCADA Human Machine Interface (HMI) upgrade, as well as a remodel of the Wilson Plant control room, has provided staff the enhanced ability to operate, respond, log, retrieve, and view data for operations and compliance. Various staff members were part of a workforce strategy team that resulted in a new position of Production Manager and differing levels of Treatment Plant Operators, which created opportunities for advancement within the department. Four Production Managers are currently on staff. Competency criteria have been created in order to provide staff with a road map for increasing knowledge and skills for promotional possibilities.

### **2018 Goals**

In 2018, 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 and

operators and other personnel in order to realize additional efficiencies in operations as we look to manage the different areas of 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. High Service Pump Station 1A, at the Wilson Plant, is planned to begin rehabilitation on pumps, motors, motor controls and all associated electrical gear to provide more reliability and flexibility providing water to our customers.

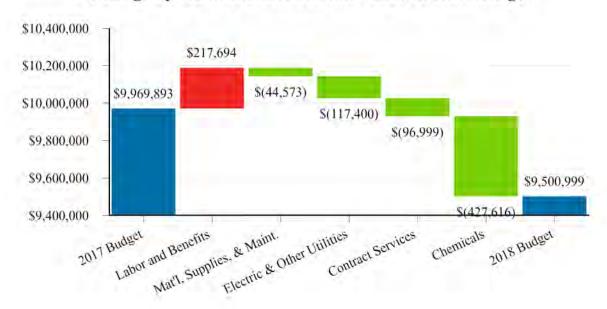
Performance Measures	2015 Actual	2016 Estimated	2017 Budget
100% SDWA Compliance	Yes	Yes	Yes
Months 100% of Filtered Turbidity ≤ 0.3 NTUs – Wilson Plant	12	12	12
Months 100% of Filtered Turbidity ≤ 0.3 NTUs – Ozark Point Plant	12	12	12
Months 95% of Filtered Turbidity ≤ 0.1 NTUs –Wilson Plant	10	11	12
Months 95% of Filtered Turbidity ≤ 0.1 NTUs – Ozark Point Plant	9	10	12
≤ 80% of All MCL	Yes	Yes	Yes

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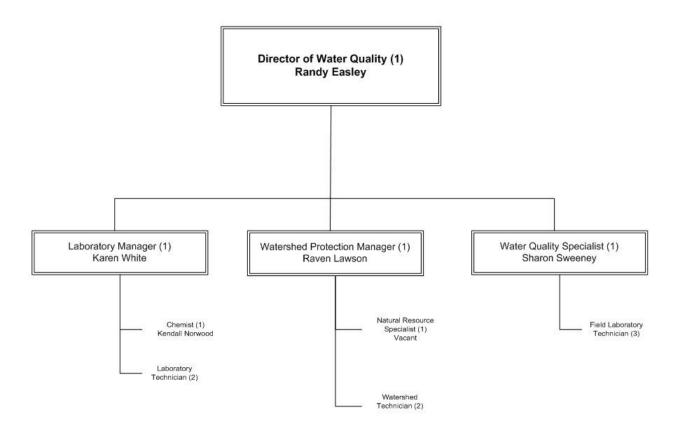
# **Water Production – Expenditure Summary**

	2016	2017	2017	2018
	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 3,221,455 \$	3,437,123 \$	3,518,474 \$	3,736,168
Materials, Supplies, and Maintenance	338,959	275,116	367,673	323,100
Electric and Other Utilities	3,707,170	3,601,034	3,911,164	3,793,764
Contract Services	88,340	105,458	132,413	35,414
Chemicals	1,863,336	1,739,195	2,040,169	1,612,553
Total Expenses	9,219,260	9,157,926	9,969,893	9,500,999
Total Capital Expenditures	459,835		985,000	1,160,000
Total Water Production	\$ 9,679,095 \$	9,157,926 \$	10,954,893 \$	10,660,999

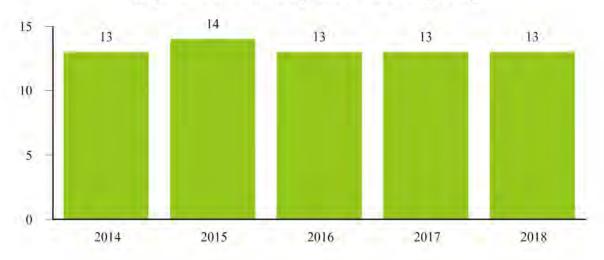
# Change by Natural Classification - 2017 to 2018 Budget



# WATER QUALITY DEPARTMENT



# Departmental Staff by Year - Water Quality



### **Water Quality Department**

The Water Quality Department encompasses the Utility's work related to watershed management, watershed stewardship, and water quality monitoring. The department oversees all sampling and laboratory operations including an Arkansas Department of Health certified bacteriological lab. The Watershed Management Program is the Utility's source water protection program for its two water supply reservoirs, Lake Maumelle and Lake Winona. The Program's goals are to protect, restore, and enhance the natural environment of these two reservoir's 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 Watershed Management Program 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. Water Quality staff also respond to customer concerns regarding water quality by providing information over the phone and by collecting samples when warranted.

The analytical laboratory serves a support role to the entire Utility. Through detailed analyses for a wide range of chemical and physical parameters in samples obtained both from the environment and CAW's treatment and distribution systems, the laboratory provides sound data that serves as the basis for evaluating drinking water quality compliance, watershed and source water health, treatability, and long term monitoring initiatives. Assessment of water quality data assures the entire CAW system meets regulatory compliance, protects public health, and prevents nuisance episodes related to taste, odor, water age and discoloration.

#### Mission

The Water Quality Department protects 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.

**EUM Attribute:** Product Quality

**Goal:** Provide an uninterrupted supply of high quality potable water that

meets or exceeds all SDWA regulations.

**Objective 1:** Maintain SDWA regulated contaminant levels ≤ 80% of allowable Maximum Containment Level (MCL)

### **2017 Accomplishments**

The monitoring, evaluation, and modification of operational elements associated with the granulated activated carbon (GAC) caps at the Ozark Point Plant to optimize the filtration process and address a wide variety of contaminants continues. The biologically active filter caps have increased the useful life of the filter carbon caps, as well as helped to better control the formation of DBPs. This role was further expanded with the addition of the MWM water system. The differing regulatory requirements of the well water sources for that system increased the challenges required to assure compliance.

**Objective 2:** 100% monthly water compliance monitoring samples with Total Coliform Monitoring Rule (TCR)

### **2017 Accomplishments**

Staff reviewed the location and status of bacteriological monitoring sites for TCR compliance monitoring and received ADH approval to install 12 dedicated sampling stations in 2016. Dedicated sampling stations will provide more consistent compliance monitoring data. Additional compliance monitoring sites and samples were added due to the merger with the MWM system.

**Objective 3:** Continue land acquisition per WMP to provide greater source water protection

#### **2017 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 2017, staff evaluated over 1,000 acres, on six properties, for potential purchase. Acquisitions of several of these properties will take place prior to December 31, 2017.

### **Objective 4:** Maintain or increase Lake Water Quality Monitoring

#### **2017 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 2017 monitoring plan, thereby reducing costs associated with relying solely on USGS personnel. Additionally, staff has initiated a "science planning" effort with USGS to guide and direct future water quality initiatives with their organization. This led to an additional \$50,000 in cooperative matching funds commitment from the USGS.

Water Quality staff continues consolidation and streamlining of the data review process and informational databases. This more integrated data management system will allow historical, current, and future data to be presented in a more efficient manner.

### **Objective 5:** Comprehensive Ecology Management

#### **2017 Accomplishments**

Reforestation of 140 acres on the former Winrock Grass Farm (WGF) took place in February 2016. This reforestation effort resulted in more than 44,000 trees of 13 different species being planted in critical, water quality protection areas of the watershed along the Maumelle River. In 2017, Water Quality conducted required follow up monitoring to assure that a 75% survival rate was being accomplished by this effort.

Prescribed burns were conducted on approximately 250 acres in the Lake Maumelle watershed in the spring of 2017, with an additional 300 acres anticipated in the fall of 2017. The use of prescribed fire improves water quality by reducing the amount of decaying woody debris and increasing the herbaceous understory filter, as well as a number of other benefits including reducing the risk of catastrophic wildfire; improving forest resiliency to drought, disease, and pests; and enhancing wildlife habitat, species diversity, and recreational opportunities.

In partnership with the University of Central Arkansas, CAW initiated additional evaluation of the impacts of mountain biking in the Maumelle watershed as recommended by the Recreation Management Plan. As part of the overall management strategy for Lake Maumelle, Lake Winona, and adjacent CAW-owned property, this plan provides a consistent process for evaluating current, proposed, and potential future recreation opportunities in the watersheds, and responding to future requests for recreation in these areas.

Ecological Timber Thinning on over 400 acres along the north shore of Lake Maumelle took place in 2017. This strategic thinning practice allows for additional sunlight to reach the forest floor and reduces the competition for water and nutrients among critical native plant and tree species. Under these conditions, the native forest understory and remaining healthy trees grow a better root system creating a natural filter for runoff and better stability for soils which would otherwise release sediment and nutrients into the watershed tributaries and/or Lake Maumelle.

In 2017, CAW is actively working with the US Army Corps of Engineers (the Corps) on a Corps Section 206 Project to restore and enhance hydrological flow and stability through the section of the Maumelle River that transects the former WGF property. The hydrology flows of the Maumelle River through the property have been altered over the years with man-made low water crossings, construction of a levee system, and side-channel cut offs to provide water supply for irrigation and control flooding. These physical alterations have induced a variety of impacts to both water quality and the ecosystem over time. Enhancing and restoring these systems is part of a larger restoration and management plan for the WGF.

### Other 2017 Accomplishments

CAW joined the Partnership for Safe Drinking Water in 2015 as part of the Utility's continued commitment to provide the highest quality water to customers. The mission for the Partnership is to improve the quality of water delivered to customers by optimizing water system operations. This Partnership has resulted in a more proactive direction in the treatment and system operations as we have begun to move toward managing the overall operation, taking a holistic approach instead of silos of raw water supply, treatment, and distributing water to our customers. In 2017, baseline data submittal reports were provided to the Partnership for both the Ozark Point and Wilson plants. It is anticipated that a baseline data submittal for CAW's distribution system will be submitted prior to December 31, 2017.

### **2018 Goals**

The Water Quality Department 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. As part of managing the distribution system for improved water quality, we plan to install field equipment to help better monitor and control chlorine residual levels and reduce DBPs, to develop methods for trending water quality changes and strategies to help mitigate a response.

In order to enhance the Utility's conservation management objectives, staff will continue the long-range plan for forest management, building off of the existing fire management plan and silviculture plans completed in 2013 and 2014. These plans, in combination with the recreation management plan and WMP, will create a road map for management activities, as well as enhance budget planning.

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. Water Quality will continue to add and enhance biological monitoring efforts. Monitoring of biological indicators will support planning efforts and provide the basis necessary to develop metrics guiding future watershed planning while providing better understanding of the health of the watersheds and source waters.

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.

Performance Measures	2016 Actual	2017 Estimated	2018 Budget
100% SDWA Compliance	Yes	Yes	Yes
≤ 80% of All MCL	Yes	Yes	Yes
100% TCR Monitoring	Yes	Yes	Yes
Land Acquisition (cumulative acres of fee-simple and conservation easements)	150.8 purchased & 295 easement	200	200
Lake Water Quality Monitoring	Yes	Yes	Yes
Tributary Water Quality Monitoring	Yes	Yes	Yes
Implementation of Ecology Management	Yes	Yes	Yes
Acres Treated with Prescribed Burning (cumulative acres)	250	600	600
Acres Treated with Ecological Thinning (cumulative acres)	400	800	800

# Water Quality – Expenditure Summary

		2016		2017		2017		2018
		Actual		Projected		Budget		Budget
Laborated Boneffe	•	4 00 4 070	Φ.	4 400 055	Φ.	4 400 740	Φ.	4 040 540
Labor and Benefits	\$	1,384,070	\$	1,108,955	\$	1,160,748	\$	1,248,516
Materials, Supplies, and Maintenance		242,504		307,901		351,343		333,970
Electric and Other Utilities		2,559		4,196		5,000		5,000
Contract Services		621,683		637,147		695,362		696,544
Total Expenses		2,250,816		2,058,199		2,212,453		2,284,030
Total Capital Expenditures		193,431				1,229,000		1,942,000
Total Water Quality	\$	2,444,247	\$	2,058,199	\$	3,441,453	\$	4,226,030

# Change by Natural Classification - 2017 to 2018 Budget





# GLOSSARY

### Statistical Information

Pulaski County is the largest county by population in the State of Arkansas, with a population of approximately 390,000. Its county seat is Little Rock, which is also the State's capital and largest city. Pulaski County forms the core of the Little Rock-North Little Rock-Conway Metropolitan Statistical Area, which accounted for approximately 700,000 people in the 2010 census. According to the U.S. Census Bureau, Pulaski County has a total area of 808 square miles, of which 771 square miles are land and 37 square miles are water.<sup>1</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 during the recent downturn. 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.



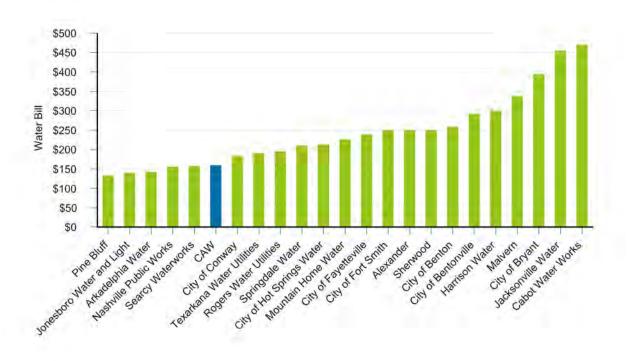
Demographics			
Pulaski County			
Population Est. (2016) <sup>3</sup>	393,250		
Per Capita Income (2015) <sup>3</sup>	\$27,708		
Median Household Income (2015) <sup>3</sup>	\$46,410		
Unemployment Percentage Rate (2017) <sup>2</sup>	3.5%		
Median Age (2010) <sup>11</sup>	36.0		

55.3%
34.8%
0.3%
1.9%
5.8%
1.9%
<b>'</b>
198,541
\$30,338
\$46,085
3.0%
35.1
46.7%
42.2%
0.3%
2.6%
6.8%
1.4%
66,275
\$22,420
\$39,591
5.7%
35.9
51.6%
39.6%
0.3%
0.9%
5.7%
1.9%
30.657
30,657 \$28.539
30,657 \$28,539 \$58,245

Sherwood (continued)	
Median Age (2010) <sup>6</sup>	37.0
Race (2010) <sup>6</sup>	
* White	75.3%
* Black or African-American	18.5%
* American Indian	0.5%
* Asian	1.6%
* Hispanic	4.0%
* Other	0.1%
Maumelle Maumelle	
Population (2016) <sup>3</sup>	18,122
Per Capita Income (2015) <sup>3</sup>	\$36,974
Median Household Income (2015) <sup>3</sup>	\$77,574
Unemployment Percentage Rate (2015)⁴	1.4%
Median Age (2010) <sup>6</sup>	35.1
Race (2010) <sup>6</sup>	
* White	82.9%
Black or African-American	12.1%
* American Indian	0.4%
* Asian	2.3%
* Hispanic	2.3%
* Other	0.0%
CAW Service Area	
Square Miles	594
Miles of Public Water Distribution Pipe (2017)	2,502
Number of Meters in Service (2016)	
* Residential	117,387
* Commercial	11,711
* Large Volume	52
* Sprinkler	25,935
* Wholesale	17
Total Consumption (2016) (in billion gallons)	17.80
Average Daily Consumption (2016) (in million gallons)	48.77
Max. Day Consumption (2016) (in million gallons)	97.7
All-Time Max. Day Consumption (2012) (in million gallons)	126.0

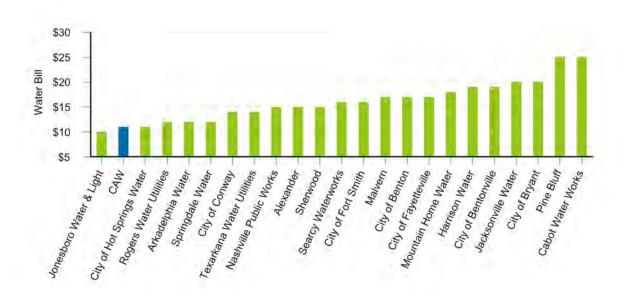
CAW Rate Comparison - Commercial (2015) <sup>s</sup> 1" - Meter			
Water Provider	Commercial (74.8k Gallons)	Commercial (187.5k Gallons)	Commercial
Pine Bluff	133.27	297.81	(374.0k Gallons) 572.03
Jonesboro Water and Light	139.33	341.29	583.93
Arkadelphia Water	141.99	288.97	533.94
Nashville Public Works	155.54	338.43	643.24
Searcy Waterworks	156.67	378.83	749.09
CAW	158.72	385.22	762.72
City of Conway	183.48	400.69	755.99
Texarkana Water Utilities	189.87	464.76	922.91
Rogers Water Utilities	195.08	454.84	875.59
Springdale Water	210.06	520.85	1,026.44
City of Hot Springs Water	212.62	515.56	1,020.46
Mountain Home Water	226.14	506.64	974.14
City of Fayetteville	238.56	585.26	1,138.67
City of Fort Smith	249.98	609.98	1,209.98
Alexander	250.24	611.74	1,214.24
Sherwood	250.24	611.74	1,214.24
City of Benton	258.47	636.25	1,265.87
City of Bentonville	291.55	699.96	1,380.64
Harrison Water	299.17	725.53	1,443.93
Malvern	337.93	826.00	1,639.45
City of Bryant	394.45	976.77	1,947.30
Jacksonville Water	454.85	1,061.85	2,073.52
Cabot Water Works	470.26	1,165.90	2,325.30

# CAW WATER RATE COMPARISION - COMMERCIAL (74.8k Gallon)



CAW Rate Comparison - Residential (2015) <sup>e</sup> 5/8" - Meter				
Water Provider	Residential	Residential	Residential	
	(3.7k Gallons)	(7.5k Gallons)	(11.2k Gallons)	
Jonesboro Water and Light	10.11	16.95	23.61	
CAW	10.68	18.73	26.78	
City of Hot Springs Water	11.13	16.17	26.34	
Rogers Water Utilities	11.53	21.18	30.58	
Arkadelphia Water	11.97	20.18	27.80	
Springdale Water	12.04	22.76	33.19	
City of Conway	13.87	23.56	32.99	
Texarkana Water Utilities	14.44	26.90	39.04	
Nashville Public Works	14.71	24.82	34.66	
Alexander	15.40	28.30	41.20	
Sherwood	15.40	28.30	41.20	
Searcy Waterworks	15.90	23.42	30.75	
City of Fort Smith	16.37	31.17	45.97	
Malvern	16.90	33.43	49.52	
City of Benton	17.47	30.27	42.73	
City of Fayetteville	17.48	31.84	45.83	
Mountain Home Water	17.90	27.40	36.65	
Harrison Water	19.41	35.45	51.06	
City of Bentonville	19.44	33.13	48.60	
Jacksonville Water	19.83	43.58	66.70	
City of Bryant	19.90	39.63	58.83	
Pine Bluff	24.59	34.04	43.50	
Cabot Water Works	25.34	40.00	55.54	

# ${\color{red} CAW~Water~Rate~Comparison-Residential} \atop {\tiny (3.7k~Gallon)}$



Pulaski County Largest Employers (2015) <sup>7</sup>				
State of Arkansas	Government			
Local Government	Government			
Federal Government	Government			
University of Arkansas for Medical Sciences	Health Care/University			
Baptist Health System	Medical Services			
Little Rock Air Force Base	Government			
Acxiom	Data Processing			
Little Rock School District	Education			
Central Arkansas Veterans Health Care Systems	Health Care			
Entergy Arkansas	Utility (Electric)			

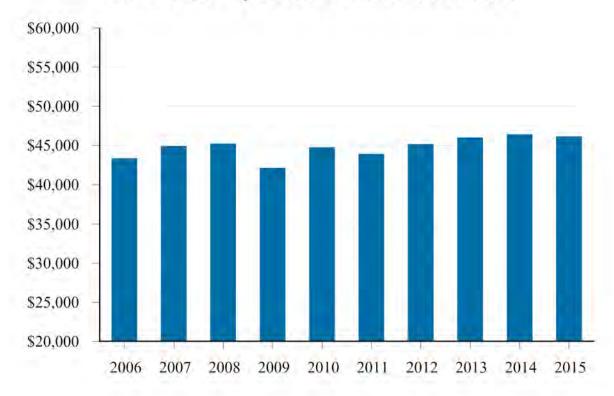


Arkansas' Ten Largest Cities by Population Unemployment Percentage Rate (2015)°		
Little Rock	4.4%	
Fort Smith	4.7%	
Fayetteville	3.5%	
Springdale	3.3%	
Jonesboro	4.2%	
North Little Rock	5.0%	
Conway	4.3%	
Rogers	3.5%	
Pine Bluff	8.3%	
Bentonville	3.4%	

Pulaski County – Median Household Income³				
Year	Per Capita Income			
2006	43,338			
2007	44,909			
2008	45,215			
2009	42,107			
2010	44,733			
2011	43,898			
2012	45,135			
2013	46,013			
2014	46,410			
2015	46,140			

Median Household income is a direct reflection of the local economy and resident's ability to pay water billings. During improving economic times, CAW expects to have fewer and smaller write-off accounts.

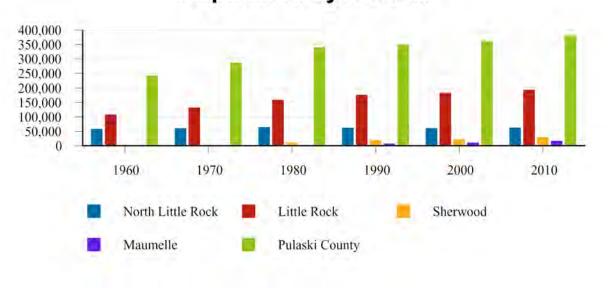
# Pulaski County - Median Household Income



County and State Unemployment <sup>2</sup>				
Year	Pulaski County	State of Arkansas		
2005	4.7	5.1		
2006	4.9	5.3		
2007	4.7	5.2		
2008	4.6	5.3		
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		

Population by Decade						
Year	Little Rock	North Little Rock	Sherwood	Maumelle	Pulaski County	
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 (2016)				
Jacksonville Water Works	2.12%			
Salem Water Users PWA	1.78%			
Bryant Water and Sewer Department	1.76%			
3M Company	0.39%			
University of Arkansas for Medical Sciences	0.38%			
Arkansas Department of Corrections	0.36%			
Cabot Waterworks	0.33%			
City of North Little Rock Burns Park	0.28%			
Shannon Hills Water Department	0.26%			
Baptist Health Medical Center	0.26%			

#### Sources:

http://www.discover.arkansas.gov/Employment/Unemployment-Rate-Rankings-by-Arkansas-County

<sup>&</sup>lt;sup>1</sup> Wikipedia, Pulaski County, Arkansas, 9-9-13, <a href="http://en.wikipedia.org/wiki/Pulaski\_County">http://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">Arkansas</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">https://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">Arkansas</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">https://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">Arkansas</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">https://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">Arkansas</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">https://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">https://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wiki/Pulaski\_County">https://en.wikipedia.org/wiki/Pulaski\_County</a>, <a href="https://en.wikipedia.org/wi

<sup>&</sup>lt;sup>2</sup> Discover Arkansas, *Data Analysis*, 9-8-17,

<sup>&</sup>lt;sup>3</sup>United States Census Bureau, *Little Rock (city) QuickFacts from the US Census Bureau*, 9-8-17, http://quickfacts.census.gov/qfd/states/05/05119.html

<sup>&</sup>lt;sup>4</sup>City-Data, *Pulaski County, Arkansas*, 7-20-15, <a href="http://www.city-data.com/county/Pulaski\_County-AR.html">http://www.city-data.com/county/Pulaski\_County-AR.html</a>

<sup>&</sup>lt;sup>5</sup>Metroplan, Little Rock Demographic Fact Sheet, 9-8-12, http://www.metroplan.org/files/53/LittleRock\_FactSheet2010.pdf

<sup>&</sup>lt;sup>6</sup> Metroplan, North Little Rock Demographic Fact Sheet, 9-10-12,

http://www.metroplan.org/files/53/NorthLittleRock\_FactSheet2010.pdf

<sup>&</sup>lt;sup>7</sup>Arkansas Economic Development, Largest Employers for Pulaski County, 7-27-15 http://www.arkansasedc.com/data/reports

<sup>&</sup>lt;sup>8</sup>CAW Survey, Arkansas Water Rates, May 2015

<sup>&</sup>lt;sup>9</sup> City-Data, Arkansas Bigger Cities (over 6000 residents), Arkansas, 8-30-16, http://www.city-data.com/city/Arkansas.html

<sup>&</sup>lt;sup>10</sup> Demographics USA, Nielson Caritas

Metroplan, Pulaski County Demographic fact Sheet 2010, 7-31-14, <a href="http://www.metroplan.org/files/53/PulaskiCo-FactSheet2010.pdf">http://www.metroplan.org/files/53/PulaskiCo-FactSheet2010.pdf</a>

Department of Numbers, Little Rock-North Little Rock-Conway, Arkansas Unemployment, 9-8-17, http://www.deptofnumbers.com/unemployment/arkansas/little-rock/

### **Glossary of Key Budget Terms**

<u>Accounting Standards</u> – the financial statements are prepared in accordance with principles generally accepted in the United States of America and all applicable pronouncements of the Governmental Accounting Standards Board (GASB).

<u>Accrual Basis of Accounting</u> – a basis of accounting that recognizes the financial effect of transactions when such transactions occur, regardless of the timing of the related cash flow.

<u>Balanced Budget</u> – planned expenditures do not exceed estimated financial resources available for a specified period.

<u>Board of Commissioners</u> – the seven-member board that governs Central Arkansas Water.

<u>Biota</u> – 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.

<u>Budget</u> – an annual financial plan that identifies revenue sources and amounts, services to be provided, and amounts of money to fund said services.

<u>Capital Assets</u> – assets that have an initial value or cost greater than or equal to \$5,000 and an estimated useful life greater than one year.

<u>Capital Outlay</u> – fund disbursements for the purchase of capital assets, such as furniture, vehicles, machinery, and building improvements.

<u>Clean Water Act</u> – 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.

<u>Commercial Customers</u> – 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.

<u>Contributions-in-aid-of-construction</u> – funds or equity contributed by customers, developers, or other entities for improvements and/or extensions to the Utility's assets.

<u>Contractual Services</u> – 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.

**<u>Debt Service</u>** – expenditures for principal and interest on outstanding bond issues.

<u>Debt Service Reserves</u> – 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.

<u>Depreciation</u> – an accounting allocation of a portion of the cost of a capital asset to the operating expenditures of the current fiscal period.

**Enterprise Fund** – a self-contained governmental fund operated to account for services supported by user charges and fees.

**Expenditures** – decreases in net financial resources under the current financial resources measurement focus; pertains to payment of normal operating and capital outlays.

**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.

<u>Fiscal Year</u> – a period of 12 consecutive months designated as the budget year. Central Arkansas Water's fiscal year is the calendar year.

<u>Fund</u> – 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.

<u>Gain/Loss on Sale of Assets</u> – income or expense that is based upon the amount of proceeds compared to the net book value of the capital assets.

<u>Generally Accepted Accounting Principles (GAAP)</u> – the conventions, rules, and procedures that serve as the norm for the fair presentation of financial statements.

<u>Governmental Accounting Standards Board (GASB)</u> – the board that establishes generally accepted accounting principles for State and local governmental units.

<u>Horizontal Asset</u> – underground assets such as pipelines, vaults, valves, etc.

<u>Investment</u> – securities purchased and held for the production of revenues in the form of interest.

<u>Large Volume Customers</u> – 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.

<u>Maintenance</u> – the use of materials and services in the effort to renew, repair, or renovate existing land, structures, vehicles, and equipment.

<u>Net Revenues</u> – 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.

<u>Operating Expenses</u> – costs required to provide service or maintain principal ongoing operations.

<u>Operating Revenues</u> – sources of income that are in connection with principal ongoing operations.

<u>Payment-in-lieu-of-taxes (PILOT)</u> – 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.

<u>Residential Customers</u> – 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.

<u>Retail Water Sales</u> – includes Residential, Commercial, Large Volume, Sprinkler, and Raw Water Metered Services, as well as Private Fire Services.

<u>Safe Drinking Water Act (SDWA)</u> – 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.

<u>Senior Debt</u> – 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 and Series 2016 Refinance Bonds.

<u>Sprinkler Customers</u> – all customers receiving separately-metered water service used exclusively for irrigation sprinkler systems or other outdoor purposes.

<u>Subordinated Debt</u> – debt that ranks below other debt with regard to claims on revenues. Subordinated debt includes the Series 2016 Maumelle Acquisition and Construction Bonds.

<u>System Development Charges (SDC)</u> – 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.

 $\underline{\text{Wholesale Customers}}$  – all customers purchasing water through a wholesale meter contract.

### **Glossary of Acronyms and Abbreviations**

**A.C.** Asbestos Cement

ADH Arkansas Department of Health

ADEQ Arkansas Department of Environmental Quality
AHTD Arkansas Highway and Transportation Department

AMR Advanced Meter Reading

AMWA Association of Metropolitan Water Agencies
ANRC Arkansas Natural Resources Commission
AOSH Arkansas Occupational Safety and Health

AP Access Point

APERS Arkansas Public Employees Retirement System

**AWC** Average Winter Consumption

AWWA American Water Works Association

BCEE Board Certified Environmental Engineer

**BLS** Bureau of Labor Statistics

CAFR Comprehensive Annual Financial Report

CAO Chief Administrative Officer
CAW Central Arkansas Water

**CCCP** Cross-Connection Control Program

CCF Hundred Cubic Feet
CEO Chief Executive Officer

**CF** Cubic Feet

**CFO** Chief Financial Officer

**CGFM** Certified Government Financial Manager

C.I. Cast Iron

CIC Capital Investment Charges
CIP Capital Improvement Plan
CIS Customer Information System

**CLW** Clearwater Complex

**CO** Carryover

COO Chief Operating Officer
CPA Certified Public Accountant

**CPE** Comprehensive Performance Evaluation

**CS** Customer Service

**DBP** Disinfection Byproducts

**D.I.** Ductile Iron

**DIAM** Diameter

**DIT**Diversity and Inclusion Team

DROP
Deferred Retirement Option Plan

**DVD** Digital Video Disc

**DVR** Digital Video Recorder **EFT** Electronic Funds Transfer

EHS Environmental Health & Safety
EPA Environmental Protection Agency
EUM Effective Utility Management

**EWC** Excess Working Capital

FDIC Federal Deposit Insurance Corporation

GAAP Generally Accepted Accounting Principles

GAC Granular Activated Carbon

**GALV** Galvanized

GASB Governmental Accounting Standards Board

GC General Counsel

**GDP** Gross Domestic Product

**GFOA** Government Finance Officers Association

GIS Geographic Information System

**GPS** Global Positioning System

**H2O** Help to Others

**HMI** Human Machine Interface

HR Human Resources

**HVAC** Heating, Ventilation, and Air Conditioning

**HWY** Highway

ICP/MS Inductively Coupled Plasma Mass Spectroscopy

IRS Internal Revenue Service
IS Information Services

ITMP Information Technology Master Plan

IVR Interactive Voice Response
JCA Just Communities of Arkansas

**J.D.** Juris Doctorate

JTH James T. Harvey Administration Building

**KWH** Kilowatt Hours **Linear Feet** 

Laboratory Information Management System

**LL.M** Master of Laws

LR Little Rock

MACMaryland Avenue ComplexMAWAMid-Arkansas Water AllianceMCLMaximum Contaminant LevelMDMMobile Device Management

MG Million Gallons

MGD Million Gallons per Day

MWM Maumelle Water Management

NLR North Little Rock

NPDES National Pollutant Discharge Elimination System

NTU Nephelometric Turbidity Unit
OPEB Other Post-employment Benefits

OSHA Occupational Safety & Health Administration

P.E. Professional Engineer

PER Preliminary Engineering Report

Ph.D. Doctor of Philosophy

PILOT Payment-in-lieu-of-taxes

PLC Programmable Logic Controller
PPE Personal Protective Equipment

P/T Part-Time

SAN Storage Area Network
RFP Request for Proposal

RSA Rate Stabilization Account

SCADA Supervisory Control and Data Acquisition System

SDC System Development Charge

SDWA Safe Drinking Water Act
SET Site Evaluation Tool

SHRM Society for Human Resource Management

SIP Session Initiated Protocol
SME Subject Matter Expert

**SOP** Standard Operating Procedure

SR Senior

**SWPA** Southwest Power Administration

TCR Total Coliform Rule
TCC Total Organic Carbon
USGS U.S. Geological Survey
VFD Variable Frequency Drive

VIP<sup>2</sup> Values-Driven, Informed, and Passionate People

**VOIP** Voice Over Internet Protocol

WAN Wide Area Network
WGF Winrock Grass Farm

WMP Watershed Management Plan
WPF Watershed Protection Fee

WQ Water Quality

WTP Water Treatment Plant



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

GFOA Certificate of Achievement for Excellence in Financial Reporting, 8 years

GFOA Distinguished Budget Presentation Award, 8 years

Outstanding Performance Award, Arkansas Workers' Compensation Commission, 15 years

### CAW STAFF AWARDS 2001 - 2017

GLEN T. KELLOGG LEADERSHIP AWARD RECIPIENTS

Fred Glover, 2001 Marie Crawford, 2007 Steve Morgan, 2002 Robert Hart, 2012 Dale Kimbrow, 2014 Bruno Kirsch, Jr., 2006 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









