



2019

Adopted Budget

Cobb County-Marietta Water Authority

Marietta, GA

Adopted December 17, 2018

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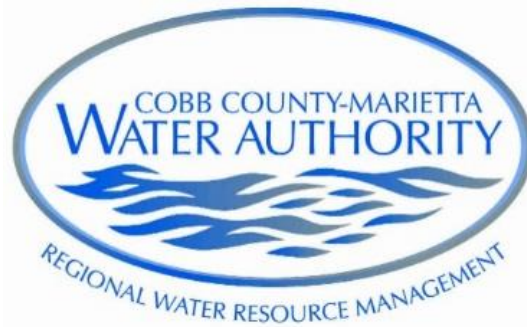
BUDGET MESSAGE

The 2019 Operating and Capital Budget is a comprehensive document that addresses anticipated revenues, operating expenses, and capital expenses. For accounting purposes, all operations are managed within a single fund, but details of each division's expenses are presented separately in the budget document.

The annual budget document is the most important policy document adopted by the Cobb County-Marietta Water Authority Board each year. The budget guides management throughout the year by providing guidelines for spending, authorizing the Capital Improvement Program, and clearly setting goals and objectives for the coming year. The Board-approved budget sets the annual operating and capital budgets, as well as the 5-year capital improvement plan. The 2019 budget and Capital Improvement Plan recognize the importance of well-planned improvements and replacements that are necessary to protect Cobb County-Marietta Water Authority's assets and facilities. The budget document not only serves as a policy guide for the coming year, but it also establishes a long-range planning document that provides the framework for sound financial decision-making and establishes the foundation for a strong future for the Authority.

Cobb County-Marietta Water Authority's only revenue source is the sale of wholesale water and the ability to sustain a pay-as-you-go financing structure for capital improvements is dependent upon annual rate increases. Since most of the Authority's customers are government entities that provide water to citizens, it is important that water rates represent the true value of water without placing an unnecessary burden on customers and their citizens. By using a long-term planning model and multi-year rate programs, Cobb County-Marietta Water Authority has been able to gradually reduce the annual rate increase from 6% in 2013 to 2% in 2019. A program of annual rate increases, instead of intermittent rate increases of unplanned value, helps prevent customers from experiencing "rate shock" when additional funds are needed to finance large capital projects. Cobb County-Marietta Water Authority plans to continually reassess its needs and adjust the rate program to best allow for the continuation of "pay-as-you-go" financing. By avoiding debt issuance until necessary to fund a project that truly provides a benefit to future generations, Cobb County-Marietta Water Authority can continue to provide safe, reliable, and affordable drinking water.

Message from the General Manager



“Providing sustainable and reliable drinking water that supports public health, public safety, and the economic vitality of the region.”

1170 Atlanta Industrial Drive, Marietta, GA 30066 | 770-514-5300 | www.ccmwa.org

Cobb County-Marietta Water Authority’s Finance Division was created in 2013 and has received the Government Finance Officers Association’s Distinguished Budget Presentation Award each year since its creation. Following the first full year of Allison Clements’ leadership of the Division, the 2019 Budget continues to demonstrate the Authority’s commitment to stewardship in meeting its objectives. The following budget includes a modest 2% rate increase for the second of a three-year rate program. This increase is below the total Consumer Price Index (CPI) of 2.5%, and the sector-specific CPI for Water and Sewerage Maintenance of 3.3% (October 2017 - October 2018).

The 2019 Operating and Capital Budget is the outcome of a full year of tracking, analysis, planning and prioritizing by Cobb County-Marietta Water Authority’s Finance Division and staff at all levels. It also reflects years of consistent and vigilant adherence to a strategy to achieve system reliability, financial stability and organizational sustainability. Our “long view” approach to planning is allowing us to mitigate impacts of significant changes, including the imminent loss of our second largest customer within the next two years, while continuing a responsible asset renewal program...all without issuing additional debt.

The Authority’s core purpose is “to provide sustainable and reliable drinking water that supports public health, public safety and the economic vitality of the region.” We are confident that this budget allows us to move forward in successfully fulfilling that purpose through the next fiscal year.

Respectfully,

Glenn M. Page

Glenn M. Page, P.E.

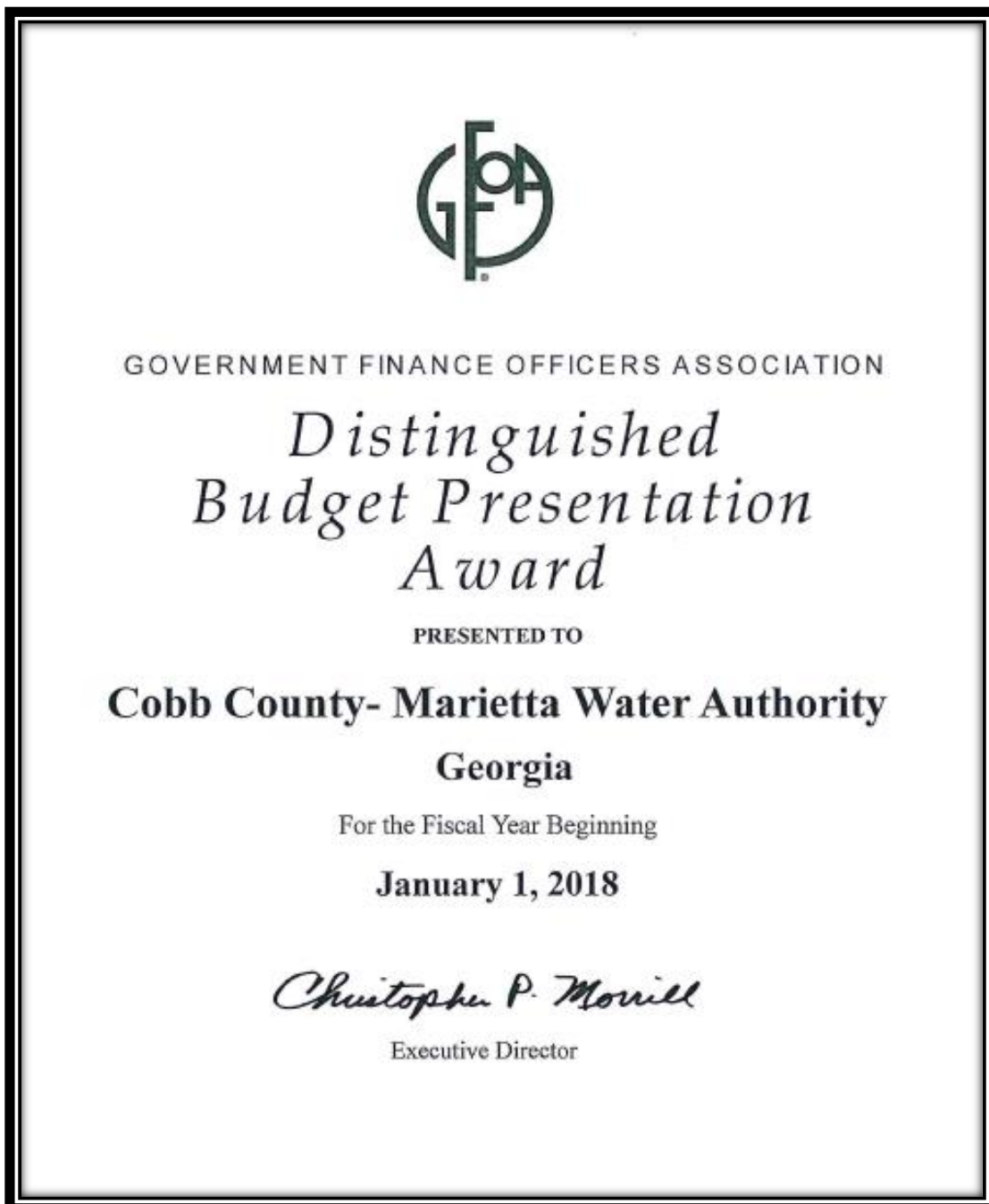
General Manager

Consolidated Budget – Fiscal Year 2019

	2018 Budget	2018 Projected Actual	Variance - Favorable (Unfavorable)	2019 Budget	Increase (Decrease) over 2018 Budget (\$)	Increase (Decrease) over 2018 Budget (%)
Operating Revenues	\$89,207,400	\$90,274,773	\$ 1,067,373	\$90,997,618	\$ 1,790,218	2.01%
Operating Expenses	54,227,250	48,455,414	5,771,837	49,787,243	(4,440,008)	-8.19%
Operating Income	34,980,150	41,819,359	6,839,210	41,210,375	6,230,226	17.81%
Other Income	1,456,512	2,506,323	1,049,811	2,379,220	922,708	63.35%
Other Expenses	2,417,507	2,416,359	1,148	2,228,070	(189,437)	-7.84%
Extraordinary Items	150,000	-	150,000	150,000	-	0.00%
Net Income	\$33,869,154	\$41,909,323	\$ 8,040,169	\$41,211,525	\$ 7,342,371	21.68%
	2018 Budget	2018 Projected Actual	Variance - Favorable (Unfavorable)	2019 Budget	Increase (Decrease) over 2018 Budget (\$)	Increase (Decrease) over 2018 Budget (%)
Pipelines	\$ 9,075,400	\$ 4,727,219	\$ 4,348,181	\$19,584,000	\$10,508,600	115.79%
Water Treatment Plants	25,400,000	21,025,000	4,375,000	33,835,000	8,435,000	33.21%
Water Storage Tanks	300,000	97,212	202,788	3,000,000	2,700,000	100.00%
Asset Renewal & Replacement	8,992,381	5,569,201	3,423,180	9,896,298	903,917	10.05%
Total Capital Improvements	43,767,781	31,418,632	12,349,149	66,315,298	22,547,517	51.52%
Reservation for DOT Projects	1,000,000	-	1,000,000	1,000,000	-	0.00%
Contingency	4,476,778	1,634,470	2,842,308	2,500,000	(1,976,778)	-44.16%
Total Capital Expenditures	\$49,244,559	\$33,053,102	\$16,191,457	\$69,815,298	\$20,570,739	41.77%

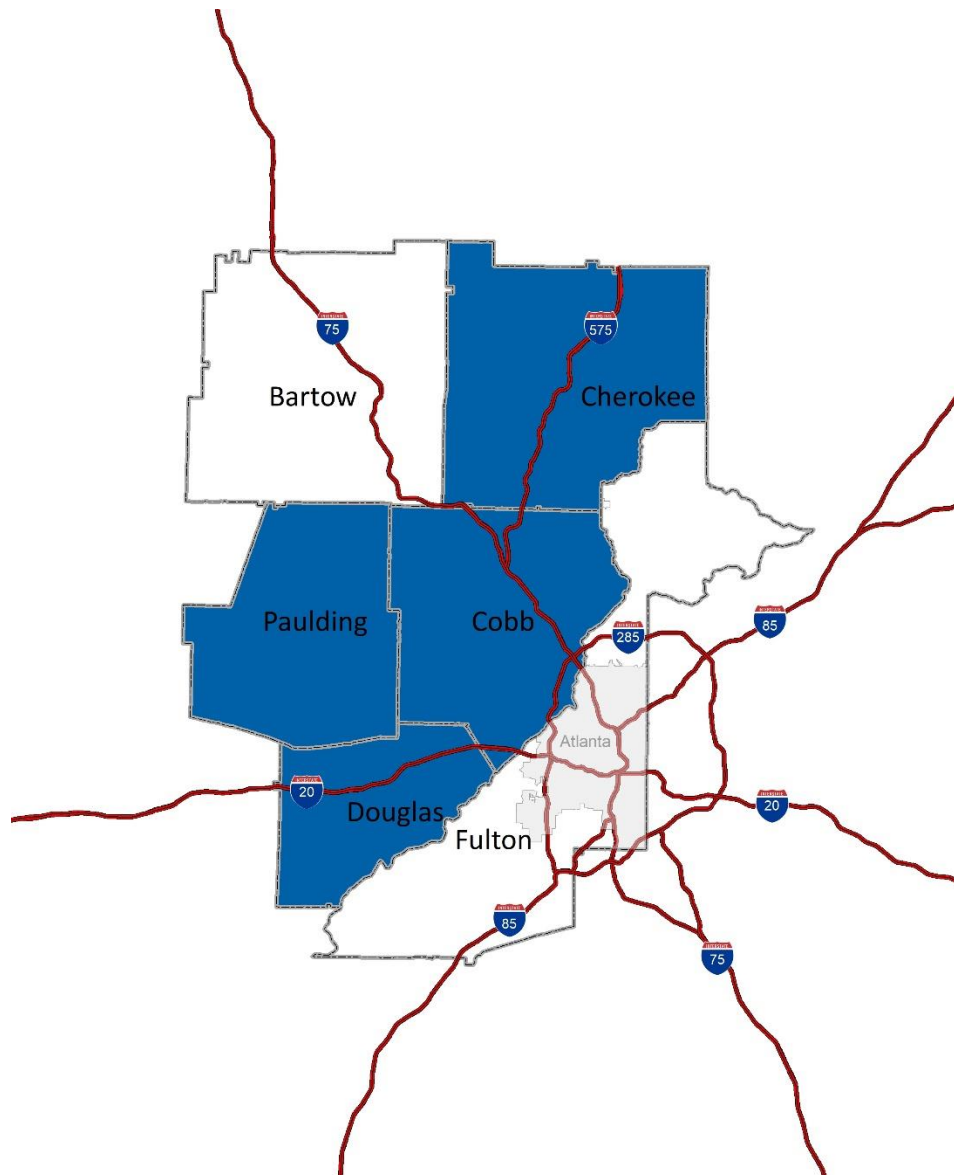
Distinguished Budget Presentation Award

Cobb County-Marietta Water Authority was presented the Distinguished Budget Presentation Award by the Government Finance Officers Association (GFOA) for the Fiscal Year 2018 budget document. This award reflects the commitment of the Authority to meeting the highest principles of governmental budgeting. To receive this award, the Authority's budget must meet nationally recognized guidelines designed to assess how well the budget serves as a policy document, a financial plan, an operations guide, and a communications device. This marks the Authority's 6th year of submitting a budget document to GFOA for consideration and receiving the Distinguished Budget Presentation Award.



GENERAL INFORMATION

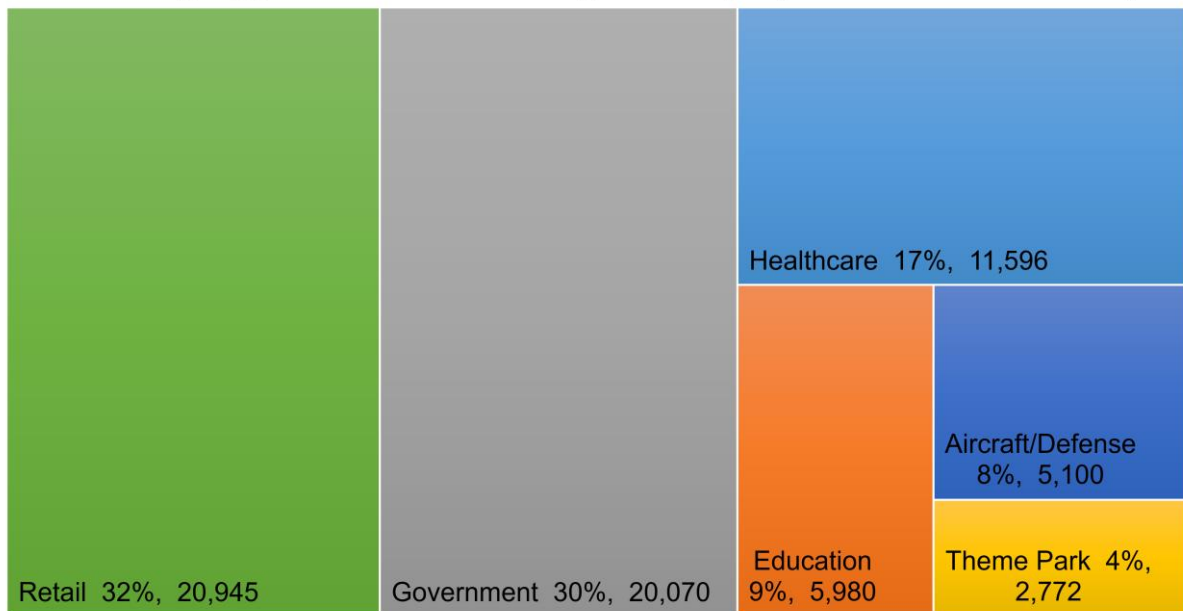
Cobb County-Marietta Water Authority (CCMWA) was created in 1951 by an act of the General Assembly of the State of Georgia as a political subdivision of the state with the sole function of supplying drinking water to wholesale customers. CCMWA serves wholesale customers north of Metro Atlanta, Georgia with water service reaching four counties (shown in blue in the map below) and one city, Mountain Park, located in Fulton County. Our wholesale customers are all governmental water purveyors except for Lockheed Martin Corporation, which shares its location with the Dobbins Air Force Base complex in Marietta. CCMWA also has a contract with Fulton County, but there are currently no active connections to Fulton County's water system. The largest population served by CCMWA is through sales to Cobb County Water System, the retail water provider for Cobb County, which has an estimated population of 758,300 and is the third most-populous county in Georgia.



Percent of Water Sales by Volume

Customer	% of Sales	Location
Cobb County Water System	66.31%	Cobb County, GA
Paulding County	14.54%	Paulding County, GA
City of Marietta	9.12%	Cobb County, GA
City of Smyrna	4.46%	Cobb County, GA
City of Woodstock	1.74%	Cherokee County, GA
City of Powder Springs	1.66%	Cobb County, GA
City of Austell	1.11%	Cobb County, GA
Lockheed Martin	0.99%	Cobb County, GA
City of Mountain Park	0.05%	Fulton County, GA
Cherokee County Water & Sewer Authority	0.01%	Cherokee County, GA
Douglasville Douglas County Water & Sewer	0.00%	Douglas County, GA
Fulton County	0.00%	Fulton County, GA

Industry Types of the Ten Largest Employers in Cobb County



Mission & Values

The mission of Cobb County-Marietta Water Authority is “to provide sustainable and reliable drinking water that supports public health, public safety, and the economic vitality of the region”. Although CCMWA does not have residential customers, it values the importance of keeping water consumers satisfied and well-informed. CCMWA has built a strong reputation of success by investing in the protection of our precious water resources through conservation programs, while maintaining dependable customer service and consistent product quality.

CCMWA’s Strategic Plan, outlines the three categories of values that are integral to the Authority’s operations:

Core Values

- **Service:** Preserving the trust of customers and stakeholders by exceeding their expectations
- **Stewardship:** Responsible and sustainable management of resources and assets
- **Professionalism:** Exhibiting high standards in personal conduct with a commitment to quality

Permission-to-Play Values

- **Integrity:** Acting honestly and consistently
- **Trust:** Confidence that employees will do the right thing, while safeguarding the confidence that others have in us
- **Technical Excellence:** Acquiring, developing, and maintaining expertise needed to support our purpose

Aspirational Values

- **Safety Culture:** Protecting our employees and the public through an ingrained mindset of safety
- **Transparency:** Open and clear decision-making process; information is easily available and readily shared
- **Innovation:** Translating new technology, ideas, business processes, and systems to improve our services and work environment



SERVICE



STEWARDSHIP



PROFESSIONALISM



INTEGRITY



TRUST



EXCELLENCE



SAFETY



TRANSPARENCY



INNOVATION

Governance and Board Members

Cobb County-Marietta Water Authority is governed by a seven-member board, with members selected by virtue of office or by appointment. The current CCMWA board is constructed of members from the following positions:

By Virtue of Elected Office:

- Chairman of the Cobb County Board of Commissioners

Appointed by the Governing Authority of the:

- City of Marietta
- City of Smyrna

Appointed by the Cobb County Delegation to the Georgia General Assembly:

- One member from Cobb Commission District 1 or 4, excluding residents of Marietta and Smyrna
- One member from Cobb Commission District 2 or 3, excluding residents of Marietta and Smyrna
- Two members from unincorporated Cobb County

Term limits for the seven board members are staggered in two-year increments to ensure consistency and stability of the overall board. Board Officers are elected on an annual basis to one-year terms to preserve the board's impartiality.



**James C. Scott, Jr.,
Chairman**



**T. Daniel Buyers,
Vice Chair**



**Charlie N.
Crowder, Member**



**Griffin L.
Chalfant, Member**



**A. Max Bacon,
Member**



**James A. Balli,
Member**



**Mike H. Boyce,
Member**

Executive Team



Glenn Page
General Manager



Cole Blackwell
*Director of Operations &
Assistant General
Manager*

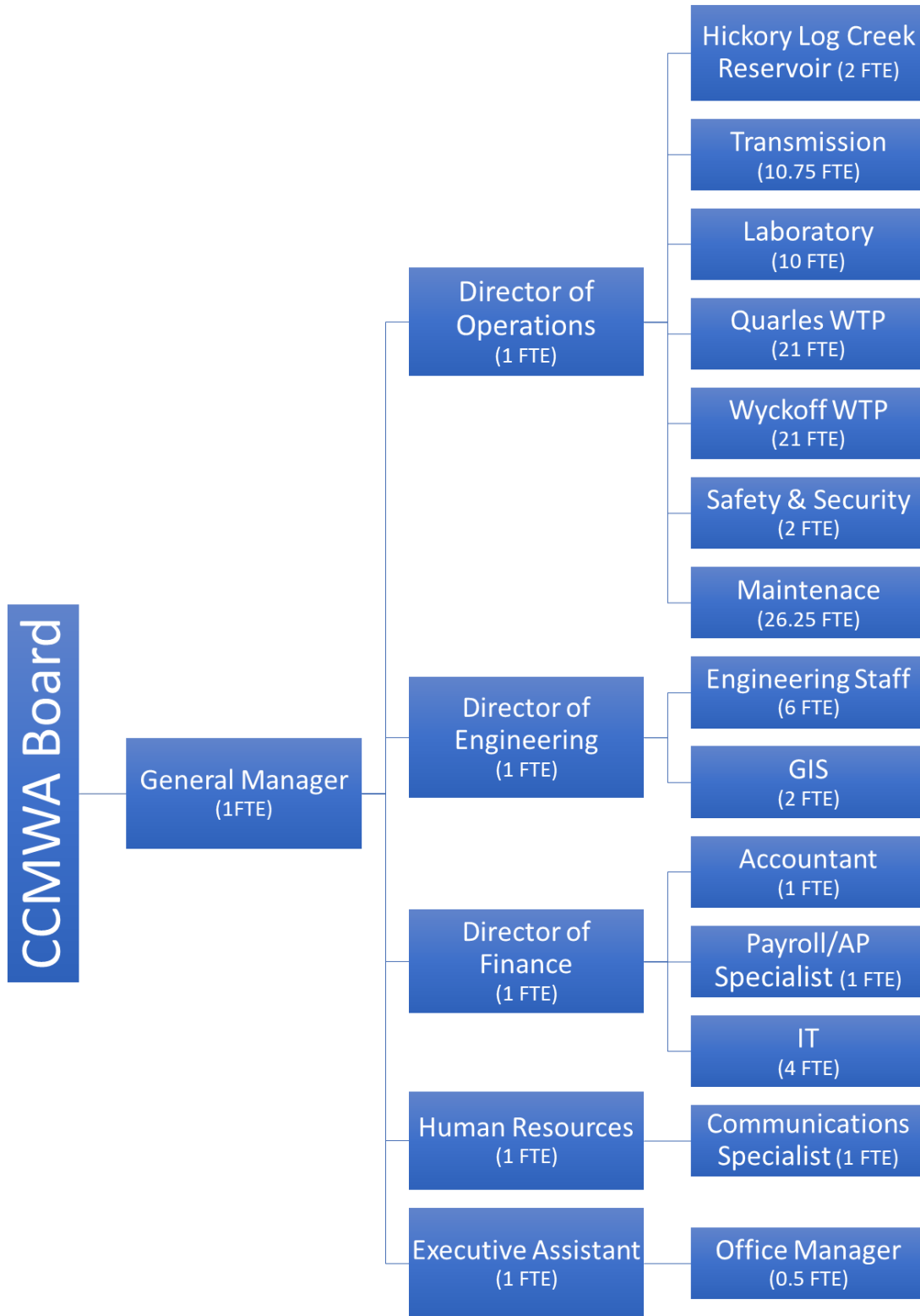


George Kaffezakis
Director of Engineering



Allison Clements
Director of Finance

Organizational Chart



FTE – Full Time Equivalent
 116 Full Time Equivalent positions for Fiscal Year 2019
 Intern program is allocated 1.5 FTE's that are not assigned to a specific division.

System Overview

CCMWA has award-winning water treatment and testing facilities, which include the James E. Quarles Water Treatment Plant, the Hugh A. Wyckoff Water Treatment Plant, and the Calvin F. Simmons Microbiological Laboratory. Each facility is staffed with certified professionals who manage the operations 24 hours a day, seven days a week. The dual water treatment plants (WTPs) which are supplied water by two separate river basins, provide production flexibility and reliability for the CCMWA service area. The laboratory, which is certified by the State of Georgia, ensures drinking water safety and regulatory compliance.

The Quarles WTP is currently permitted to produce 86 million gallons of water per day and is supplied by the Chattahoochee River, part of the Apalachicola-Chattahoochee-Flint (ACF) River Basin.



The Wyckoff WTP is currently permitted to produce 72 million gallons of water per day and is supplied by Allatoona Lake, a U.S. Army Corps of Engineers impoundment on the Etowah River, which is part of the Alabama-Coosa-Tallapoosa (ACT) River Basin.



CCMWA's laboratory is responsible for testing the water that CCMWA provides to its wholesale customers to ensure that it meets state and federal drinking water standards. The laboratory tests approximately 500 regulatory water samples each month from raw water sources, both WTPs, CCMWA's water transmission pipeline system, and wholesale customers' distribution systems. The laboratory also provides microbiological water testing services



to residents who have wells and for various other purposes on a fee basis. The laboratory facilities include a research lab, chemistry lab, Level I and II microbiology labs, media prep lab, and an incubator lab.

In addition to water treatment and testing facilities, a transmission pipeline network including over 200 miles of pipe conveys drinking water to CCMWA's wholesale customers. The system includes pipe ranging in diameter from 16 to 64 inches, with most pipe at least 36 inches in diameter.



To provide additional water supply, CCMWA operates the Hickory Log Creek Reservoir, a pumped storage project located upstream of Allatoona Lake in the Etowah River Basin. Hickory Log Creek Reservoir covers approximately 411 acres and impounds 5.7 billion gallons of water. The reservoir is jointly owned and operated by CCMWA and the City of Canton, with CCMWA owning 75% of the

project. The reservoir was constructed with a designed yield of 44 million gallons per day (MGD), with 33 MGD allocated to CCMWA.

Structure

CCMWA is considered a government entity due to its creation as a political subdivision of the State of Georgia. This government designation allows CCMWA to operate under a [proprietary fund](#), which is used to account for government activities that are similar to businesses found in the private sector. In accounting for operations, CCMWA utilizes the [full accrual basis of accounting](#) as prescribed for proprietary funds by the Governmental Accounting Standards Board ([GASB](#)). CCMWA's basis of budgeting utilizes the [modified accrual basis of accounting](#) in which revenue is recognized when it becomes available and expenditures are recognized when the liability is incurred.

CCMWA's sole purpose of providing wholesale potable water qualifies as an [enterprise fund](#) under the proprietary fund type. CCMWA utilizes one enterprise fund to report on its financial position and the results of operations using the [flow of economic resources](#) measurement focus. CCMWA's enterprise fund is referred to as the "Water Fund" and has four primary functions. The duties within each function are divided into budgetary operating divisions, with a total of twelve divisions across the Authority. The four primary functions and their respective budgetary divisions are:

- **Administration & Engineering** – Oversees planning and coordination for the entire organization in the areas of General Administration, Engineering, Finance, Information Technology, Safety & Security, and Research & Development.
- **Water Treatment** - Responsible for water production, water testing, and routine maintenance of treatment plant infrastructure with responsibilities divided among the Quarles Water Treatment Plant, Wyckoff Water Treatment Plant, Laboratory Division, and Maintenance Division.
- **Water Resources** – Responsible for the operation and maintenance of Hickory Log Creek Reservoir and represented by the Hickory Log Creek Division.
- **Transmission System** – Responsible for maintenance of the Authority's transmission pipeline system and represented by the Transmission Division.

PRIORITIES AND ISSUES

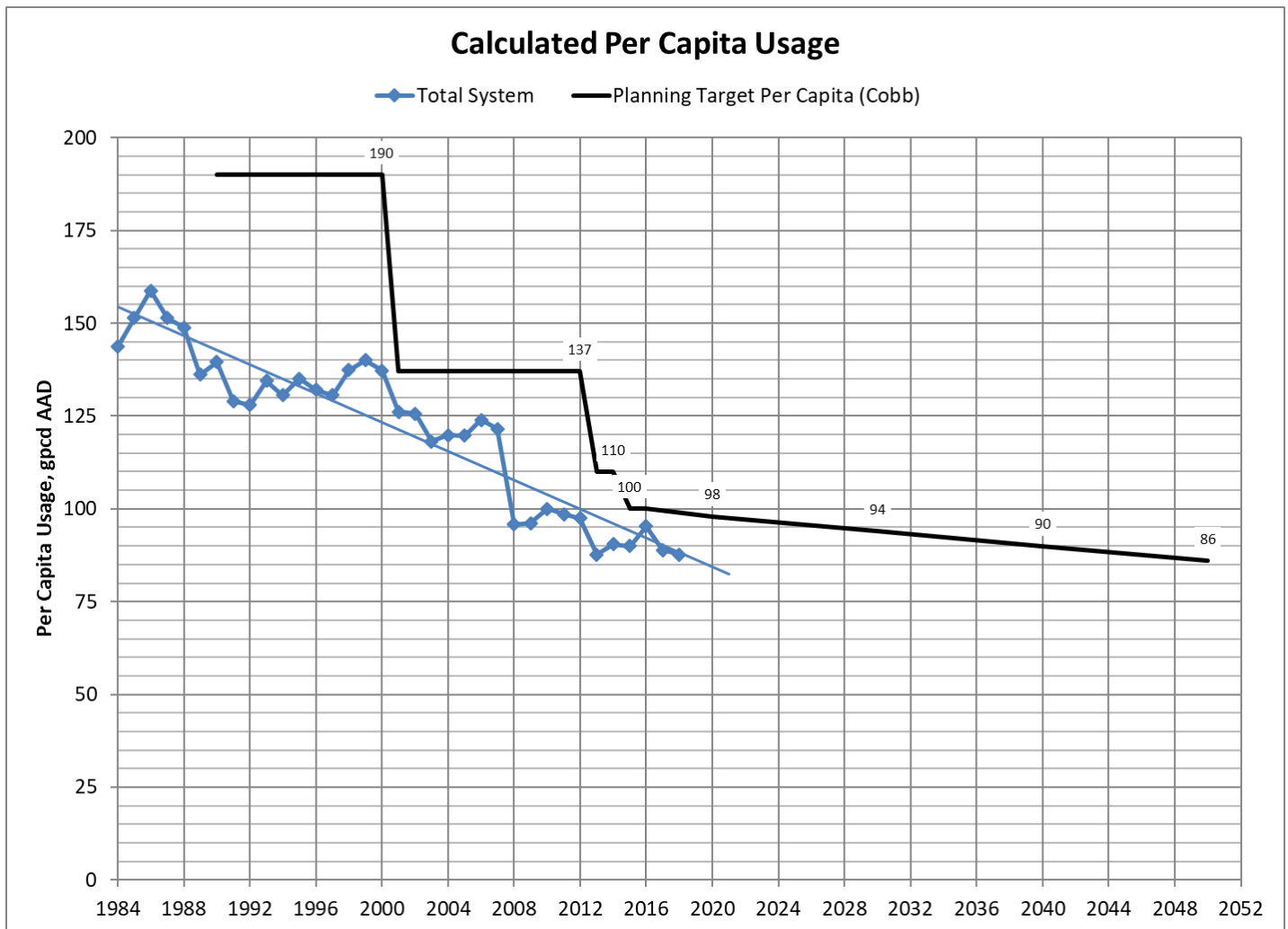
Cobb County-Marietta Water Authority's operational decisions are impacted by a variety of external and internal factors. These factors drive not only operational decisions, but also guide budget development and strategic planning. The priorities and issues facing CCMWA for the 2019 budget year and beyond are:

- Per capita demand changes
- Customer-driven changes
- Weather conditions
- Workforce continuity and development
- Aging infrastructure

These priorities and issues are discussed in detail in the following section, including how CCMWA plans to address each of these items in the coming years.

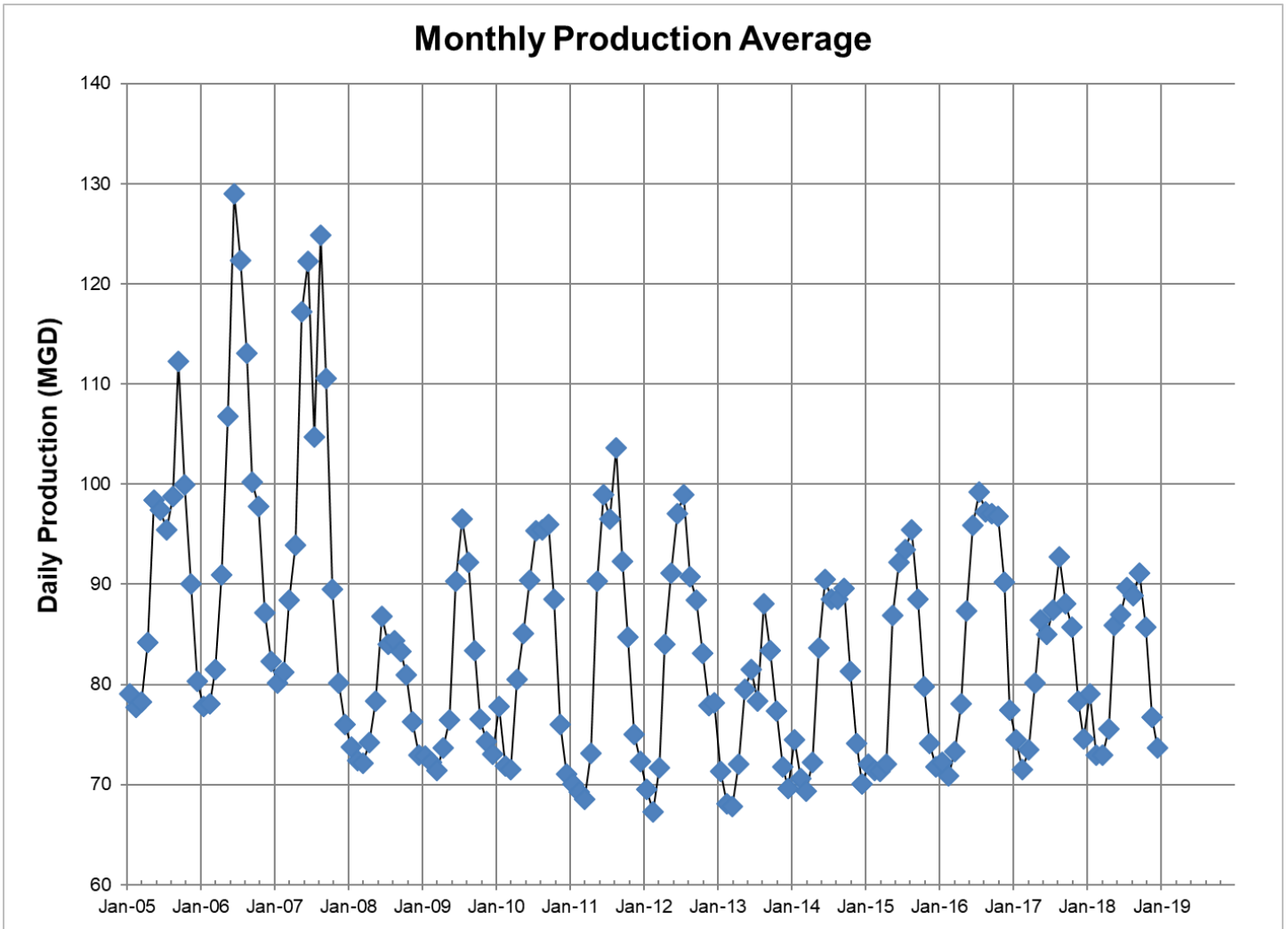
Per Capita Demand

The population of Cobb County, the largest area served by CCMWA, has grown by more than 70,000 residents since 2010. Cobb County’s population in 2018 is estimated to be 758,300 and the county is ranked third in the 10-county Atlanta region for population growth between 2010 and 2018. However, despite the rapid population growth in our service area, CCMWA has experienced a downward trend in per capita demand for water over the last decade. This trend began in 2008 when per capita demand decreased from an annual average of 125 gallons per capita per day to 95 gallons per capita per day as depicted in the graph below. The last ten years have shown a continuation of this downward trend in per capita demand and has become the “new normal” as end users of water become more conscious about water usage and manufacturers develop more water efficient products and processes.



The Calculated Per Capita Usage graph shows total system demand from 1984 to 2018, as well as the target per capita demand used for planning by CCMWA. The planning target of 190 gallons per capita per day used in 2000 has been decreased over time to 99 gallons per capita per day for the 2019 fiscal year. Future planning targets to the year 2052 have been adjusted to more closely match the trend line of actual total system demand.

The downward trend of per capita water demand can also be seen in CCMWA’s monthly production averages, shown in the Monthly Production Average graph below. CCMWA has only experienced one month (July 2011) with average production over 100 million gallons per day in the last ten years. Water efficiency and conservation efforts made over the last decade are now ingrained habits of end water users and are expected to continue into future years. As a result, there are no capital improvements in the current 5-year Capital Improvement Plan (CIP) that would result in an increase to overall water production capacity. The 5-year CIP now focuses on projects addressing reliability and rehabilitation of infrastructure instead of projects related to system expansion.



Customer Changes

CCMWA anticipates a significant reduction in water demands before the end of 2020 due to infrastructure development in progress by our second largest customer, Paulding County. In October 2015, Paulding County received a permit from the United States Army Corps of Engineers to build the Richland Creek Reservoir, which is now under construction, along with a related water treatment facility, transmission pipelines, and pump stations. This project is scheduled for completion in late 2019. Paulding County has notified CCMWA to expect a slight reduction in water purchases when the new water treatment facility is completed and a significant reduction in the amount of water purchased during the 2020 fiscal year. CCMWA has included this reduction in its water sales projections and has removed future capital projects related solely to delivering water to Paulding County from the Capital Improvement Plan.

During 2018, CCMWA began negotiations with Paulding County on a new contract that will recognize Paulding County as a non-sole source customer and require a base infrastructure charge based on a reserved daily allocation (RDA) and a variable delivery charge based on actual water purchases. The final terms of this contract are expected to be finalized in 2019, with terms that provide flexibility to Paulding County for an interim period after their new water treatment facility becomes operational. This interim period will allow Paulding County to estimate the amount of water needed from CCMWA, select an RDA, and begin paying a monthly base charge and a volumetric charge for water purchases.

The terms of Paulding County's contract will mirror the terms of the 50-year contract set in 2017 between CCMWA and the Douglasville-Douglas County Water and Sewer Authority (DDCWSA). DDCWSA operates its own water treatment and transmission system and purchases water from CCMWA on an as-needed, secondary basis. DDCWSA's contract terms include a base infrastructure charge and a variable delivery charge, designed to recognize and compensate CCMWA for investments in infrastructure to serve DDCWSA as a non-sole-source customer. The base infrastructure charge is a uniform monthly charge based on the RDA requested by DDCWSA. When water is purchased from CCMWA, DDCWSA pays a volumetric charge for actual water purchases. The effective total rate for DDCWSA, between the base infrastructure charge and the variable delivery charge, is equal to CCMWA's current in-county sole-source rate.

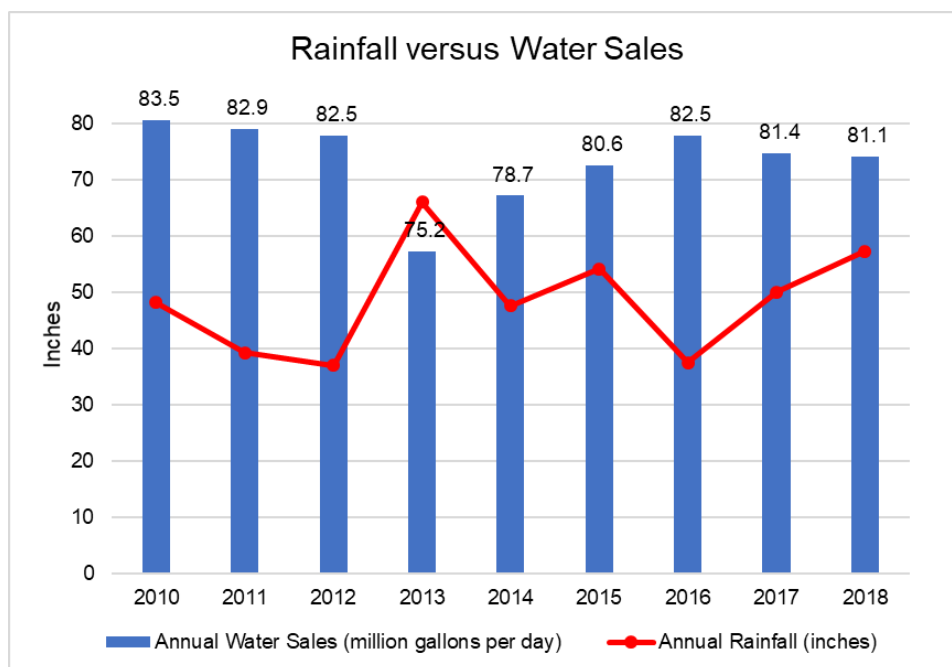
CCMWA will use this type of contract structure for future contract negotiations with non-sole source customers, as customer contracts expire or become eligible for renegotiation. By recognizing infrastructure investments within the terms of each contract, CCMWA can more equitably allocate capital infrastructure costs between all CCMWA customers. Through careful planning and review of future infrastructure needs, CCMWA has worked to enact a rate program that reflects the true value of water to each customer. The planned changes to contracts for non-sole source customers have allowed CCMWA to continue the current rate program of 2% annual increases for fiscal year 2019.

Weather Conditions

Water supply and water demand are both influenced by weather conditions. By tracking and analyzing historical weather patterns, CCMWA can more effectively estimate future water demand. CCMWA’s service area experienced regular rainfall throughout the summer and fall of 2017, which helped to refill Lake Lanier, the primary water source for nine metro Atlanta counties. On March 8, 2018, in response to Lake Lanier’s water level, the Georgia’s Environmental Protection District (EPD) lifted the Level 1 drought response which had been in effect since September 7, 2017. A Level 1 drought response requires permitted public water systems to conduct a public information campaign to explain drought conditions and the need to conserve water but does not include any restrictions to use.

CCMWA’s service area is estimated to receive approximately 57 inches of rainfall in 2018. The average annual rainfall of CCMWA’s service area is 50 inches; therefore, higher demand for water occurs when annual rainfall is below the yearly average. In years with below average annual rainfall, annual water sales have exceeded 82 million gallons per day (MGD), while years with above average annual rainfall can cause water sales to drop below 80 MGD. This relationship can be seen in the graph below, where increased rainfall in 2013 drove water sales down to 75.2 MGD.

The timing of rainfall can also impact water sales, with increased rainfall in warmer months having a greater impact than at other times of year. Water sales for 2018 are expected to slightly exceed the budget projection of 80.7 MGD because most of the above average rainfall occurred during cooler months when demand for water is naturally lower. Water sales for 2019 are projected to remain relatively constant at 80.9 MGD. However, unexpected weather conditions could result in water demand that does not align with budget projections. This risk is always present due to the inverse relationship between rainfall and water sales.



Workforce Development

Cobb County-Marietta Water Authority has a strong history of retaining employees and, as a result, has experienced lower than average turnover for many years. However, organizational changes are expected through the next decade as long-tenured employees become eligible for retirement. Since 2017, the average employee age has decreased from 48 years to 47 years and the percent of the current workforce over the age of 50 has decreased from 53% to 47%. Despite an increased number of retirements in recent years, there is still a large portion of the workforce, 31%, that will reach normal retirement age in the next 10 years. These statistics highlight the need for employee development and succession planning to ensure that key positions are filled when long-tenured employees retire.

CCMWA plans to address the need for employee development and succession planning during 2019 in the following ways:

- Employees in supervisory roles will work on individual development plans to develop leadership skills in areas identified on their 360° reviews and will be trained in the areas of conflict management, review writing, and progressive discipline.
- Employees will be offered training on the topics of verbal and non-verbal communication, development of internal interview skills, and growing your personal brand as part of an ongoing communications series.
- A mentoring program will be established that pairs leaders in the company with developing employees.
- Employees will be offered training on Office 365 and the Microsoft Office Suite to help develop computer skills.



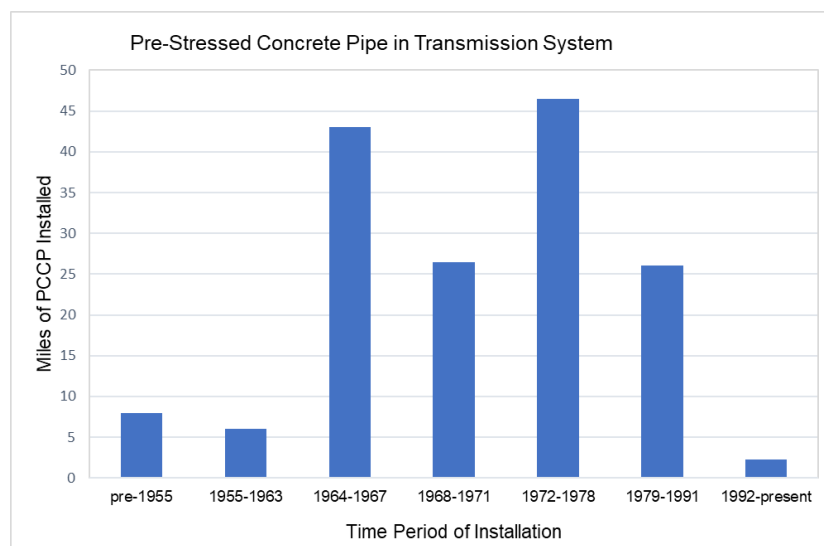
During 2018, the first communications series was offered to employees with a focus on written and verbal communication skills. Employees that participated in this training ended the course by giving a presentation on a work-related topic to a group of peers and supervisors.



Aging Infrastructure

CCMWA's current Strategic Plan identifies infrastructure sustainability as a key area of focus through 2020. The goal of the infrastructure sustainability initiative is to maintain CCMWA's infrastructure to minimize life cycle costs and maximize system reliability. In 2016, the CCMWA Board approved funds to develop a multi-year program to proactively replace water mains as they near the end of their useful life. This program, referred to as the Aged Pipe Replacement Program, will be used to proactively replace aged pipe to mitigate the risk of catastrophic failure and costly repairs.

The goal of the Aged Pipe Replacement Program was to evaluate all pipelines in the system, including ductile iron and pre-stressed concrete cylinder pipe (PCCP). An analysis tool was used to assess over 2,200 pipe sections based on age, internal pipe pressures, soil conditions, traffic impacts, potential collateral damage to properties, ease of repairs, and criticality to the transmission system. An emphasis was placed on PCCP, due to its estimated life being shorter than the estimated life of ductile iron pipe. The initial evaluation of CCMWA's transmission pipelines identified 12 pipe sections with the potential for failure, leaks, or significant impact to the system and 5 pipe sections in need of a condition assessment.



The above graph shows the original 160 miles of PCCP in the transmission system by year of installation, with the majority installed between the years of 1964-1978. Over last two decades, 87 miles of PCCP were replaced as part of other projects and were not included in the original assessment. The remaining 73 miles of PCCP have been prioritized for replacement based on their criticality and risk. The highest priority items from the Aged Pipe Replacement program were added to the Capital Improvement Plan in 2017 and the first project from the group, the Mableton Parkway 36" water main replacement which replaced 4,600 feet of PCCP with ductile iron pipe, was completed during 2018. Five projects from this program will be under design or in construction during 2019 with a combined length of 14.45 miles.

BUDGET DEVELOPMENT



Planning Process

Cobb County-Marietta Water Authority conducts various planning processes each year. These planning processes include the following actions:

- Review, update, and determine progress towards goals and objectives in CCMWA's Strategic Plan.
- Review, update, and officially adopt a rolling 5-year Capital Improvement Plan.
- Maintain a forecast for capital improvements on a rolling 10-year and 20-year basis.
- Review, update, and ensure CCMWA's Master Cash Flow Model is consistent with operational costs, capital improvement funding needs, asset renewal and replacement funding needs, debt obligations, revenue requirements, water rates, bond rating agency assessment criteria, and reserve requirements.
- Review, analyze, develop, and adopt an annual balanced operating budget.

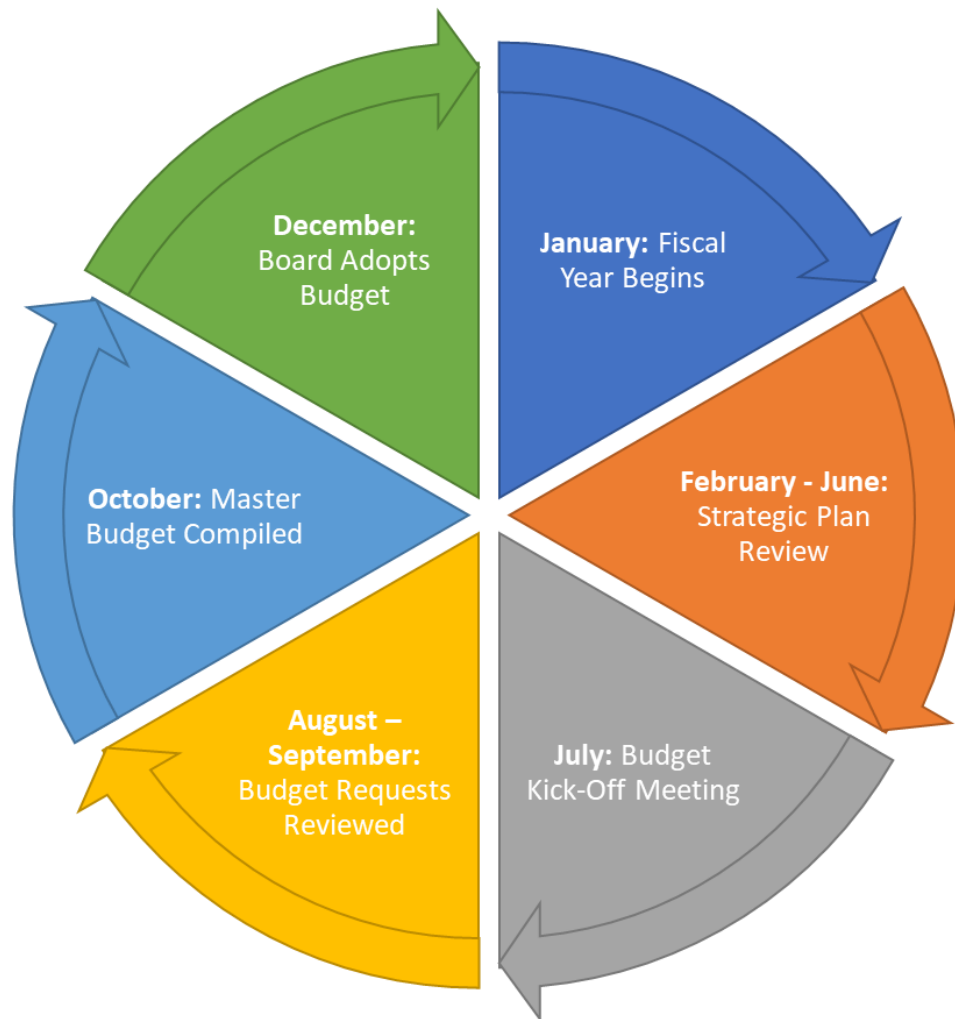
To facilitate the Capital Improvement Program (CIP), the CCMWA Board has implemented a plan for stabilized rate increases that span a set number of years instead of assessing rate increases based on the needs of a single year. The current rate plan was set in 2018 as a 3-year plan with annual 2% increases which would be reviewed annually by the Board. The rate plan was reviewed during the planning and development of the 2019-2023 CIP to ensure that it still supported the Authority's future capital plans. The Board approved a continuation of the 3-year program for inclusion in the 2019 budget.

The information gathered by each planning process is evaluated through the Master Cash Flow Model. The purpose of this model is to provide the necessary guidelines to ensure that cash will be available to pay budgeted costs in a timely manner and forecast yearly cash flows for a term of at least 20 years. Budget allocations are utilized by the cash flow model to anticipate operational expenses and all other anticipated cash outflows including principal portions of debt payments, use of net income to fund capital projects, and extraordinary items. The cash flow model provides details as to the period in which revenues will be collected and will be available to pay obligations.

Through implementation of these planning processes, CCMWA ensures a reliable and sustainable water treatment and transmission system capable of providing high quality drinking water at competitive rates. CCMWA's bond rating was affirmed as AAA by the three primary rating agencies in 2002 due to both short term and long term financial and nonfinancial planning. CCMWA maintained this rating through the Great Recession of 2007-2009, while many other utilities and governments experienced bond rating downgrades. CCMWA's bond rating was reaffirmed as AAA by the three primary rating agencies in 2015 during the refinancing of Georgia Environmental Finance Authority loans with senior lien revenue bonds. CCMWA's bond rating was last reaffirmed as AAA by Fitch Ratings on May 11, 2017 and by Moody's Investor Service on December 7, 2018.

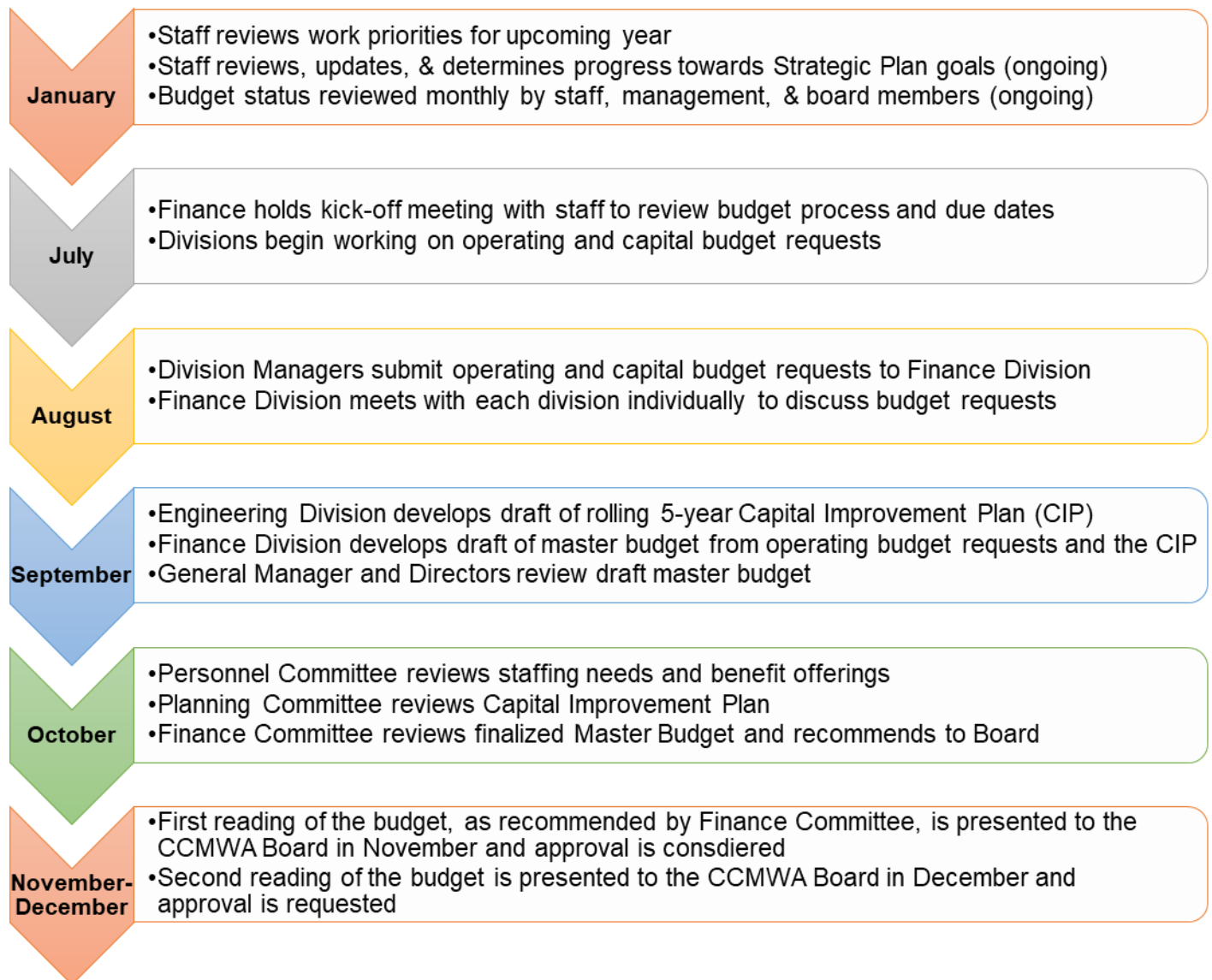
Budget Process

Cobb County-Marietta Water Authority is focused on providing high quality, affordable potable water to its customers at the quantity required to sustain their respective communities and economies. Planning, budgeting, operational efficiency, reliability, and quality are critical to the fulfillment of CCMWA's mission. The budget process for CCMWA is ongoing to ensure that each of these critical areas receive adequate attention, and the process is viewed as a continuous cycle that begins as soon as the next year's budget is adopted.



Budget Calendar

A budget kick-off meeting is held in July, which allows Division Managers and the Finance Division to discuss frequently asked budget questions and due dates for the upcoming budget development process. The information gathered by the Divisions throughout the first half of the year is then used to develop budget requests. Division Managers meet with the Director of Finance in August to discuss their operational and capital budget needs. During September, the draft 5-year Capital Improvement Plan is developed by operations staff and the Engineering Division. After a draft master budget is compiled by Finance, the information is reviewed by the Directors and General Manager before it is presented to the board during committee meetings in October and November. The first reading of the draft budget occurs at the November board meeting and any board recommended changes are made before the final budget reading and adoption in December.



Strategic Plan Implementation

The initiatives highlighted in CCMWA's 2016-2020 Strategic Plan serve as a guiding force during budget development. Over the five years covered by the plan, CCMWA staff will devote time and energy to improve performance in these areas. The nine initiatives outlined in the 2016-2020 Strategic Plan include:

- **Safety Culture** – elevate the Safety Program to create a safety culture to protect our employees and the public
- **Water Quality** – consistently deliver high quality water to our customers
- **Workforce Development** – attract, develop, and retain top talent
- **Financial Strength** – preserve a strong financial profile
- **Preparedness/Security** – improve the security of facilities and personnel, and increase resiliency
- **Infrastructure Sustainability** – acquire and proactively maintain our infrastructure to minimize life cycle costs and maximize reliability
- **Communication Enhancements** – promote clear, open communication within our organization and to external stakeholders
- **Information Management** – collect and manage information to make sound, long-term decisions
- **Water Resources** – secure and preserve water sources that will serve the region into the future

CCMWA established implementation teams, comprised of staff of various levels within the Authority, that are responsible for driving and overseeing the Authority's progress towards each of the nine initiatives. The Authority recognizes that each initiative will require different levels of attention over the course of the plan and the teams will be utilized on an as-needed basis. During 2018, the Workforce Development team was used to implement 360° reviews for management and encourage staff to set development goals on an annual basis. The Information Management team also began work by brainstorming methods to capture and organize data for easier access across the organization.



In 2019, the Information Management team will continue their work by developing policies and procedures related to data management, the Water Quality team will work to develop operating procedures for responding to our customers' water quality concerns, and the Preparedness/Security team will assist with the development of a risk and resiliency assessment required by the U.S. Environmental Protection Agency (EPA).

Goals and Objectives

CCMWA uses the Strategic Plan initiatives for guidance when developing annual goals and objectives. The goals set by each division are intended to foster a culture where all employees across the Authority are working towards a single outcome: building a stronger organization for the future. The goals set by each division are presented with their individual operating budgets and include key objectives needed to meet each goal, along with historical performance towards each objective. CCMWA also sets Authority-wide financial and non-financial goals that, while not directly linked to Strategic Plan initiatives, require continued focus and attention from the organization. These goals are focused on areas that impact the overall operation of the Authority, that require a contribution from staff at all levels, or that are required for CCMWA to fulfill its core mission and maintain solvency.

2018 Entity-Wide Financial and Non-Financial Goals

Review of 2018 Short Term Financial Goals

- The Authority will plan for, develop, and adhere to a balanced budget for calendar year 2018. **Completed**
- The Authority will evaluate options to amend the Capital Improvement Plan in 2018 to avoid issuance of debt to fund capital improvements in future years. **Completed**
- The Authority will evaluate options to increase operational efficiency and reduce costs in support of its planned rate structure. **Completed**
- The Authority will maintain its planned rate increase of 2% while maintaining current levels of service and fiscal stability. **Completed**
- The Authority will maintain unrestricted cash reserves equivalent to six months of budgeted operating expenses throughout 2018. **Completed**

Review of 2018 Long-Term Financial Goals

- The Authority will strive to maintain its AAA bond rating from multiple bond rating agencies. **Maintained**
- When fiscally possible, the Authority will avoid issuance of “new debt” to fund renewal-type capital improvements. **Maintained – no plans for debt issuance**
- The Authority will fully fund a managed asset renewal and replacement program each year with net income. **Maintained – funded in 2018 by net income**
- The Authority will maintain a useful and effective cash flow model to predict cash flows for at least 20 years into the future to facilitate long-term financial planning and establish rate programs that avoid “rate shock” to customers. **Maintained – cash flow model maintained and used for projections through 2048**
- The Authority will maintain a competitive rate structure to facilitate financial and overall economic sustainability of the Authority and its customers. **Maintained – a 2% rate increase was implemented for 2018 and is planned to continue for 2019.**

Review of 2018 Short-Term Non-Financial Goals

- The Authority will implement drone technology to enhance GIS records related to easements and buried assets. *Completed*
- The Authority will perform a test of procedures in the Business Continuity Plan. *Completed*
- The Authority will continue to evaluate the structural integrity of aging large diameter pre-stressed concrete cylinder pipe. *Completed*
- The Authority will continue efforts related to workforce development through enhancements to the performance review program and leadership development program. *Completed*

Review of 2018 Long-Term Non-Financial Goals

- CCMWA will secure sufficient water resources for current and future customers of the Authority. *Ongoing: a reallocation study for Allatoona Lake is under way and will be completed in 2021.*
- CCMWA will gain United States Army Corps of Engineers (USACE) approval for the accounting methodology proposed for the use of releases from Hickory Log Creek Reservoir and place the project into useful service. *Ongoing: this is an issue in ongoing litigation in federal court between the Authority and USACE and is also a consideration in the alternatives to be studied in the reallocation study for Allatoona Lake.*
- The Authority will gain consent of the United States Army Corps of Engineers to credit wastewater inflows into Allatoona Lake as an offset to water withdrawals from the lake. *Ongoing: this is an issue in federal court between the Authority and USACE and is also a consideration in the alternatives to be studied in the reallocation study for Allatoona Lake.*
- The Authority will gain additional allocation of water from Allatoona Lake sufficient to meet the needs of future Authority customers. *Ongoing: the results of the Allatoona Lake reallocation study will impact future changes in allocated water supply.*
- The Authority will work with the Atlanta Regional Commission, Metropolitan North Georgia Water Planning District and the State of Georgia to acquire additional allocation of water from the Chattahoochee River sufficient to meet the future demands of Authority customers. *Ongoing: current allocated water supply is sufficient through 2050, but continues to be considered by the U.S. Supreme Court in Florida v. Georgia.*
- The Authority will maintain potable water quality and perform water quality monitoring in accordance with all regulatory rules. *Ongoing: both the Quarles and Wyckoff Treatment Plants were recognized in 2018 for ten consecutive years of meeting all water quality, monitoring and reporting requirements through receiving the Platinum Award from the Georgia Association of Water*

Professionals. The Wyckoff Treatment Plant was also awarded Plant of the Year by GAWP in the Large Surface Water Treatment Plant category.

- The Authority will develop a sustainable workforce of qualified and capable operators, technicians, scientists, engineers, managers, and leaders. *Ongoing: formal individualized development plans through 360-degree evaluation on competencies required for management positions is occurring. Succession plans are being updated for critical positions.*

2019 Entity-Wide Financial and Non-Financial Goals

2019 Short Term Financial Goals

- The Authority will plan for, develop, and adhere to a balanced budget for calendar year 2019.
- The Authority will evaluate options to amend the Capital Improvement Plan in 2019 to avoid issuance of debt to fund capital improvements in future years.
- The Authority will evaluate options to increase operational efficiency and reduce costs in support of its planned rate structure.
- The Authority will maintain its planned rate increase of 2% while maintaining current levels of service and fiscal stability.
- The Authority will maintain unrestricted cash reserves equivalent to six months of budgeted operating expenses throughout 2019.

2019 Long-Term Financial Goals

- The Authority will strive to maintain its AAA bond rating from multiple bond rating agencies.
- When fiscally possible, the Authority will avoid issuance of “new debt” to fund renewal-type capital improvements.
- The Authority will fully fund a managed asset renewal and replacement program each year with net income.
- The Authority will maintain a useful and effective cash flow model to predict cash flows for at least 20 years into the future to facilitate long-term financial planning and establish rate programs that avoid “rate shock” to customers.
- The Authority will maintain a competitive rate structure to facilitate financial and overall economic sustainability of the Authority and its customers.

2019 Short-Term Non-Financial Goals

- The Authority will continue to use drone technology to enhance GIS records related to easements and buried assets.
- The Authority will evaluate its water treatment strategy to optimize for lead and copper corrosion control.
- The Authority will commence a risk and resiliency assessment in accordance with requirements in the 2018 America’s Water Infrastructure Act, to be completed in early 2020.

- The Authority will continue to evaluate the structural integrity of aging large diameter pre-stressed concrete cylinder pipe.
- The Authority will continue efforts related to workforce development through internal training programs focused on computer skills, communication skills, and supervisory training.

2019 Long- Term Non-Financial Goals

- CCMWA will meet or exceed all drinking water quality regulations, including monitoring and reporting requirements.
- CCMWA will continuously prepare for future regulatory changes through internal evaluation and participation in research opportunities.
- CCMWA will secure sufficient water resources for current and future customers of the Authority.
- CCMWA will gain United States Army Corps of Engineers (USACE) approval for the accounting methodology proposed for the use of releases from Hickory Log Creek Reservoir and place the project into useful service.
- The Authority will gain consent of the United States Army Corps of Engineers to credit wastewater inflows into Allatoona Lake as an offset to water withdrawals from the lake.
- The Authority will gain additional allocation of water from Allatoona Lake sufficient to meet the needs of future Authority customers.
- The Authority will work with the Atlanta Regional Commission, Metropolitan North Georgia Water Planning District and the State of Georgia to acquire additional allocation of water from the Chattahoochee River sufficient to meet the future demands of Authority customers.
- The Authority will maintain potable water quality and perform water quality monitoring in accordance with all regulatory rules.
- The Authority will develop a sustainable workforce of qualified and capable operators, technicians, scientists, engineers, managers, and leaders.

EXECUTIVE SUMMARY

The 2019 annual operating budget for Cobb County-Marietta Water Authority is a balanced budget with operating revenues exceeding operating expenses. Operating income is expected to increase by \$6.2 million in 2019 due to an 8.19% decrease in operating expenses. Projected net income for 2019 is \$41.2 million, a 21.68% increase over the 2018 budget. Actual net income for 2018 is expected to be \$41.9 million, \$8 million higher than expected.

	2018 Budget	2018 Projected Actual	Variance - Favorable (Unfavorable)	2019 Budget	Increase (Decrease) over 2018 Budget (\$)	Increase (Decrease) over 2018 Budget (%)
Operating Revenues	\$89,207,400	\$90,274,773	\$ 1,067,373	\$90,997,618	\$ 1,790,218	2.01%
Operating Expenses	54,227,250	48,455,414	5,771,837	49,787,243	(4,440,008)	-8.19%
Operating Income	34,980,150	41,819,359	6,839,210	41,210,375	6,230,226	17.81%
Other Income	1,456,512	2,506,323	1,049,811	2,379,220	922,708	63.35%
Other Expenses	2,417,507	2,416,359	1,148	2,228,070	(189,437)	-7.84%
Extraordinary Items	150,000	-	150,000	150,000	-	0.00%
Net Income	\$33,869,154	\$41,909,323	\$ 8,040,169	\$41,211,525	\$ 7,342,371	21.68%

The total 2019 capital budget is \$69.8 million, which includes \$56.4 million in capital improvements, \$9.9 million in asset renewal and replacement projects, a \$1.0 million reserve for Department of Transportation (DOT) required projects, and a \$2.5 million contingency. The overall capital budget for 2019 is 41.7% higher than the 2018 capital budget. This increase is due to the continuation of a large water treatment plant construction project and several pipeline projects moving from the design phase into the construction phase in 2019.

	2018 Budget	2018 Projected Actual	Variance - Favorable (Unfavorable)	2019 Budget	Increase (Decrease) over 2018 Budget (\$)	Increase (Decrease) over 2018 Budget (%)
Pipelines	\$ 9,075,400	\$ 4,727,219	\$ 4,348,181	\$19,584,000	\$10,508,600	115.79%
Water Treatment Plants	25,400,000	21,025,000	4,375,000	33,835,000	8,435,000	33.21%
Water Storage Tanks	300,000	97,212	202,788	3,000,000	2,700,000	100.00%
Asset Renewal & Replacement	8,992,381	5,569,201	3,423,180	9,896,298	903,917	10.05%
Total Capital Improvements	43,767,781	31,418,632	12,349,149	66,315,298	22,547,517	51.52%
Reservation for DOT Projects	1,000,000	-	1,000,000	1,000,000	-	0.00%
Contingency	4,476,778	1,634,470	2,842,308	2,500,000	(1,976,778)	-44.16%
Total Capital Expenditures	\$49,244,559	\$33,053,102	\$16,191,457	\$69,815,298	\$20,570,739	41.77%

Summary of Factors Influencing the 2019 Budget

- A balanced budget with net income supporting planned capital needs.
- Division goals and objectives directly related to Strategic Plan initiatives.
- Rate program that represents the true value of water, with a 2% rate increase for 2019, which is the second year of the current three-year rate program.
- In-county customer rate: \$2.99; out-of-county customer rate: \$3.30
- Water sales estimated at 80.9 MGD
- Decreased operating expenses due to reduction in Research & Development budget, decreased Depreciation expense, and decreased Health Insurance expense.
- 4.5% average allocation for merit-based salary increases, based on the midpoint of each positions' salary grade.
- Capital budget totaling \$69.8 million for 2019, with a focus on Aged Pipe Replacement and system sustainability.

Operating Revenue Assumptions

Cobb County-Marietta Water Authority's operating revenue consists of water sales, summer surcharges, base charges, and water testing. Water sales revenue and base charges constitute more than 99% of CCMWA's revenue. Water sales revenue is based on volumetric charges for monthly water demand at a rate set by the customer's status as an in-county (sole-source) or out-of-county (non sole-source) customer. Base charge revenue is received from customers with reserved daily allocation contracts and is realized in equal monthly installments. Customers on this type of contract pay a base charge equal to 45% of the in-county rate for a set amount of water, also referred to as a reserved daily allocation, regardless of monthly demand. When water is purchased, volumetric charges are added at 55% of the in-county rate. All sources of revenue are budgeted except for summer surcharges because this revenue is realized only when summer water usage exceeds 130% of the previous winter's base demands.

	<u>2015 Audited</u>	<u>2016 Audited</u>	<u>2017 Audited</u>	<u>2018 Budget</u>	<u>2018 Projected</u>	<u>2019 Budget</u>
Water Sales	\$79,971,182	\$89,354,831	\$86,534,937	\$87,763,500	\$88,750,814	\$89,484,990
Base Charges	-	-	-	1,412,400	1,445,400	1,472,628
Summer Surcharges	361,135	261,333	2,186	-	32,359	-
Water Testing	24,050	39,300	45,100	31,500	46,200	40,000
<i>Total Operating Revenue</i>	<u>\$80,356,367</u>	<u>\$89,655,464</u>	<u>\$86,582,223</u>	\$89,207,400	<u>\$90,274,773</u>	\$90,997,618
% of Total Revenue	100%	100%	100%	100%	100%	100%
Gallons Sold (in millions)	29,474	31,500	29,613	29,639	29,781	29,533
MGD (average)	80.7	86.3	81.4	80.7	81.1	80.9

Water sales revenue for 2018 is projected to be \$88.7 million with demand of 81.1 MGD compared to a budget of \$87.7 million with water demand of 80.7 MGD. Base charge revenue is projected to be \$1.4 million in 2018, which is \$33,000 higher than budget due to contract changes that occurred after the budget was finalized. Summer surcharges in the months of May through September provided \$32,359 in unbudgeted revenue for 2018. Water testing revenue for 2018 is projected to be \$46,200 compared to a budget of \$31,500. The 2018 budget assumed that 630 billable samples would be processed by the CCMWA laboratory; however, the laboratory is projected to process 924 samples due to an increase in area construction that requires water testing.

Operating revenue for 2019 is forecasted at \$91.0 million, a 2.01% increase over the 2018 budget. This forecast assumes \$89.5 million in revenue from water sales, \$1.5 million from base charges, and \$40,000 from water testing. The forecast for water sales revenue assumes 80.9 MGD in water sales, with 86% of water sales to in-county customers at \$2.99 per thousand gallons and 14% of sales to out-of-county customers at \$3.30 per thousand gallons. Base charges will increase by 2% per contract terms, which matches the rate increase for volumetric sales. The forecast for water testing revenue is based on 800 billable samples, a 27.0% increase over the 2018 budget, based on historical trends. The revenue collection rate is assumed to be 100% based on prior year collection rates and the financial stability of all CCMWA customers.

Operating Expense Assumptions

The top five expense categories in CCMWA's operating budget are depreciation, salaries and benefits, electricity and natural gas, repairs and maintenance, and water treatment chemicals. Miscellaneous expenses increased to greater than three of these categories for the first time in 2018 due to increased legal expenses related to long term water supply. In 2018, depreciation expense is expected to account for 42.80% of the operating expense budget, salaries and benefits for 24.49%, electricity and natural gas for 11.54%, repairs and maintenance for 5.60%, and water treatment chemicals for 5.28% of operating expenses. These proportions are similar to the last three fiscal years, with a slight decrease in the proportion of depreciation expense and an increase in the proportion of electricity and natural gas expense.

Operating Expenses by Type

	<u>2015 Audited</u>	<u>2016 Audited</u>	<u>2017 Audited</u>	<u>2018 Budget</u>	<u>2018 Projected</u>	<u>2019 Budget</u>
Salaries, Benefits, & Pension	\$ 10,981,632	\$ 11,277,715	\$ 11,305,408	\$ 12,647,701	\$ 11,866,899	\$ 12,733,156
Depreciation	19,470,039	20,126,666	20,976,444	22,706,250	20,738,467	19,500,000
Electricity & Natural Gas	5,635,518	5,441,784	5,023,004	5,927,570	5,589,748	5,915,200
Chemicals	1,768,886	2,136,214	2,473,835	2,714,450	2,559,748	2,773,850
Repairs & Maintenance	2,806,759	2,365,081	2,441,221	2,920,586	2,715,693	3,050,507
Residuals Management	585,873	572,174	510,543	680,000	687,623	650,000
Research & Development	1,306,390	1,413,167	905,015	2,127,000	968,868	1,226,000
Information Technology	417,795	493,245	502,242	646,340	540,075	780,225
General Insurance	581,783	552,911	562,006	655,545	538,097	609,300
Miscellaneous	1,544,472	1,845,211	1,394,117	3,201,808	2,250,195	2,549,005
	<u>\$ 45,099,147</u>	<u>\$ 46,224,169</u>	<u>\$ 46,093,835</u>	<u>\$ 54,227,250</u>	<u>\$ 48,455,414</u>	<u>\$ 49,787,243</u>

Operating Expenses by Percent of Total

	<u>2015 Audited</u>	<u>2016 Audited</u>	<u>2017 Audited</u>	<u>2018 Budget</u>	<u>2018 Projected</u>	<u>2019 Budget</u>
Salaries, Benefits, & Pension	24.35%	24.40%	24.53%	23.32%	24.49%	25.58%
Depreciation	43.17%	43.54%	45.51%	41.87%	42.80%	39.17%
Electricity & Natural Gas	12.50%	11.77%	10.90%	10.93%	11.54%	11.88%
Chemicals	3.92%	4.62%	5.37%	5.01%	5.28%	5.57%
Repairs & Maintenance	6.22%	5.12%	5.30%	5.39%	5.60%	6.13%
Residuals Management	1.30%	1.24%	1.11%	1.25%	1.42%	1.31%
Research & Development	2.90%	3.06%	1.96%	3.92%	2.00%	2.46%
Information Technology	0.93%	1.07%	1.09%	1.19%	1.11%	1.57%
General Insurance	1.29%	1.20%	1.22%	1.21%	1.11%	1.22%
Miscellaneous	3.42%	3.99%	3.02%	5.90%	4.64%	5.12%
	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

The 2019 budget anticipates depreciation expense of \$19.5 million, a 14.1% decrease over the 2018 budget estimate of \$22.7 million. This decrease is due to several assets reaching the last year of depreciation during 2018 and the anticipation that more projects will fall off the depreciation schedule than will be added during 2019.

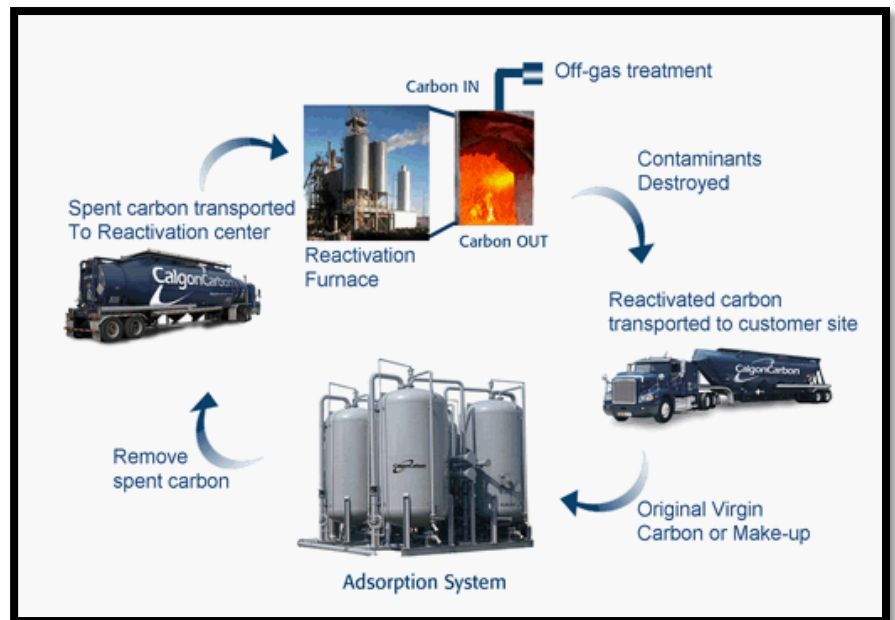
This decrease can be seen in the 2018 projection of depreciation expense, which is \$2 million below the budget estimate.

The budget for salaries, benefits, and pension expense is estimated to increase by less than 1.0% in 2019 due to positions vacated by retirements being filled at lower salaries. Each division's salaries, overtime, and payroll tax expenses were estimated based on the assumption that all full-time positions will be filled for the entire year. The budget for salaries, overtime, and payroll taxes also includes an allocation for merit increases of 4.0% of the midpoint of each position's salary grade with an additional 0.5% allocated for technical positions that are difficult to retain. The overall budget for employee benefits is expected to decrease by 10.0% in 2019 due to a carrier change that resulted in a lower quoted price for health insurance. Pension expense for 2019 is estimated to increase by 2.1% and is budgeted as a percentage of salaries expense.

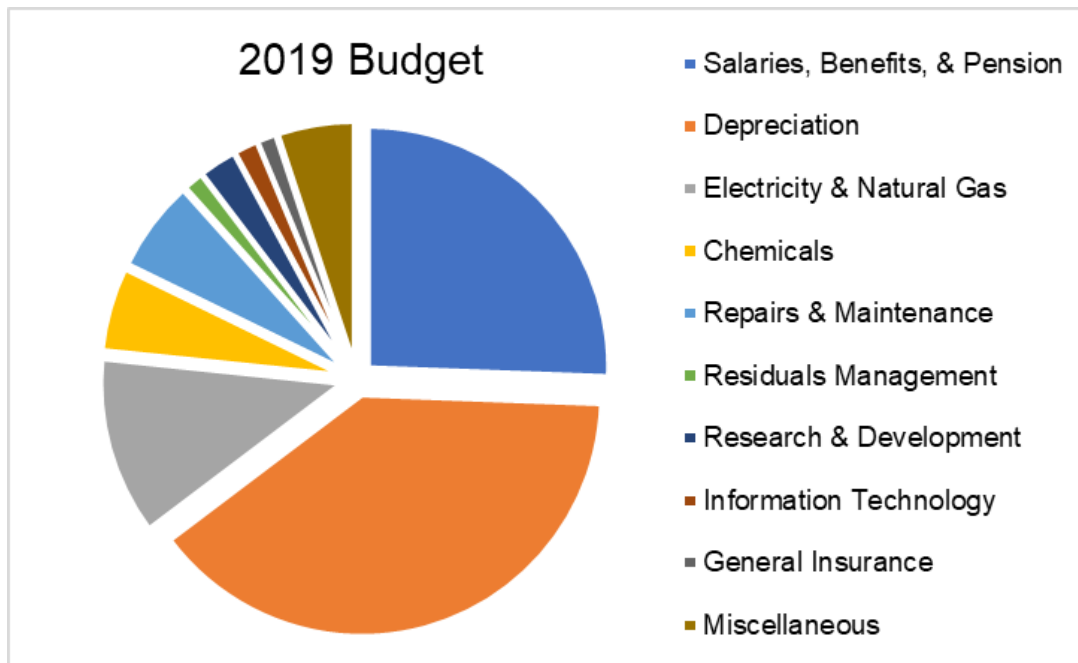
The budget for electricity and natural gas expense is not expected to change in 2019 due to multi-year contracts that allow for fixed rates. Actual electricity and natural gas expenses are projected to total \$5.6 million for 2018, compared to a budget of \$5.9 million, and are estimated to total \$5.9 million in 2019.

Repair and maintenance expenses include costs related to the maintenance of general equipment, electrical systems, SCADA system, security systems, vehicles, asset coating, pipelines, meters, water storage tanks, and easement clearing. Estimated repairs and maintenance expenses for 2018 are projected to total \$2.7 million compared to the budget of \$2.9 million. The total budget for these expenses is expected to increase by 4.3% in 2019 to \$3 million. This increase is mainly due to an increase in SCADA system maintenance and repairs, which are driven by the age of the SCADA system, and an increase in coatings maintenance and repairs, to allow for exposed piping to be painted in a protective coating.

The budget for water treatment chemicals for 2019 is expected to increase 2.1% over the 2018 budget of \$2.7 million. Actual chemicals expense in 2018 is projected to total \$2.6 million and includes the reactivation of the media in 14 granular activated carbon (GAC) vessels. GAC is used during the treatment process to remove dissolved organic compounds that can lead to water quality issues in finished water. A similar number of GAC vessels will need to be reactivated during 2019; this is included in the total water treatment chemicals budget.



Granular Activated Carbon reactivation process



Other Income and Expense Assumptions

Budgeted other income consists of interest income, rental income, and miscellaneous income. Non-budgeted sources of other income include gain/loss on disposal of assets, gain/loss on market value of investments, timber sales, reimbursements, settlements, and sales tax refunds. These non-budgeted items represent income that is difficult to estimate due to changes in market conditions or to being out of CCMWA's control.

Other income for 2018 is projected to be \$2.5 million, which will exceed the budget expectation of \$1.5 million by \$1 million. Rising interest rates in 2018 caused interest income to outpace expectations and lead to higher than anticipated other income. In 2019, other income is forecasted to increase by 63.35% over the 2018 budget and total \$2.4 million due to the higher interest rates of investments purchased during the year.

Budgeted other expenses include debt related items such as the interest portion of revenue bond payments, amortized costs, and fiscal agent fees. CCMWA currently has two outstanding debt issuances that contribute to expenses in this category.

Other expenses for 2018 are expected to meet the budget expectation of \$2.4 million and other expenses in 2019 are expected to decrease by 7.84%. This reduction in the budget for other expenses is related to bond interest and will continue to decrease as CCMWA's revenue bonds move closer to maturity.

Capital Improvement Plan Assumptions

The 2019-2023 Capital Improvement Plan is focused on sustaining the ability to provide the expected level of service to our customers by maintaining and reinvesting in CCMWA's infrastructure. The projects outlined in the 5-year CIP are either aged pipe replacements or projects related to the replacement, rehabilitation, or reliability of plant assets and equipment. In 2019, capital project spending is budgeted at \$69.8 million and the overall value of the 5-year CIP is estimated to be \$279.3 million.

	2018 Budget	2018 Projected Actual	Variance - Favorable (Unfavorable)	2019 Budget	Increase (Decrease) over 2018 Budget (\$)	Increase (Decrease) over 2018 Budget (%)
Pipelines	\$ 9,075,400	\$ 4,727,219	\$ 4,348,181	\$ 19,584,000	\$ 10,508,600	115.79%
Water Treatment Plants	25,400,000	21,025,000	4,375,000	33,835,000	8,435,000	33.21%
Water Storage Tanks	300,000	97,212	202,788	3,000,000	2,700,000	100.00%
Asset Renewal & Replacement	8,992,381	5,569,201	3,423,180	9,896,298	903,917	10.05%
Total Capital Improvements	43,767,781	31,418,632	12,349,149	66,315,298	22,547,517	51.52%
Reservation for DOT Projects	1,000,000	-	1,000,000	1,000,000	-	0.00%
Contingency	4,476,778	1,634,470	2,842,308	2,500,000	(1,976,778)	-44.16%
Total Capital Expenditures	\$49,244,559	\$33,053,102	\$16,191,457	\$ 69,815,298	\$ 20,570,739	41.77%

Actual capital expenses for 2018 are estimated to be \$33 million, with \$25.8 million from capital improvement projects, \$5.6 million from asset renewal and replacement projects, and \$1.6 million in contingency. Asset renewal and replacement projects, often called AR&R projects, typically span less than two fiscal years and have a budget of less than \$2 million each. The contingency expenses for 2018 are due to trailing costs of 2017 projects that were not budgeted for 2018. CCMWA's planning target is to spend at least 70-80% of the annual CIP budget; however, CIP spending in 2018 amounted to 67% of the annual CIP budget. The planning target was not reached because three of the four pipeline projects and the one water storage tank project were in the design phase throughout the entire year. Spending on these projects did not progress as quickly as expected in 2018, but as these projects move into the construction phase during 2019 and 2020 spending should progress at a faster pace. The 2018 portion of these projects' budgets that was unspent will be spent in future years and did not impact the total estimated cost of the projects.

The Cash Flow Model is used to ensure that the operating budget and rate program can support the 20-year CIP outlook. The results of the Cash Flow Model analysis are used to finalize the 5-year CIP projects and any adjustments to the rate program. The following assumptions were used for the Cash Flow Model analysis:

- 2019 proposed operating and capital budgets
- 3.5% inflation factor for expenses in future years
- Anticipated water demand of 80.9 MGD in 2018 and a 4.6% reduction in water demand in 2019 due to Paulding County's development of a water treatment reservoir and plant.

- Average annual water demand of 77.2 MGD from 2020 through 2030 and average annual water demand of 80.4 MGD from 2031 to 2041.

The Cash Flow Model and 20-year CIP outlook do not include projects that are currently speculative and inestimable, and, if realized, would be funded through contingency or through the issuance of new debt. These projects include land purchases or settlements related to Hickory Log Creek Reservoir and major shifts in the 20-year CIP outlook due to regulatory changes or unfavorable decisions regarding future water availability through Allatoona Lake and Hickory Log Creek Reservoir.

Impact of Capital Improvement Plan on Operating Budget

When prioritizing and scheduling capital projects, CCMWA considers the impact each project will have on the operating budget. While the actual impact will not be known until a project is completed, the table below shows the estimated impact of each project that will be completed in the next five budget years. Depreciation expense has the greatest impact on the operating budget, as it is CCMWA's largest expense category. Many of the capital projects planned for the next five years will result in lower maintenance costs as they are replacing pipelines or equipment that are currently prone to failure.

Estimated Impact of 5-Year Capital Improvement Plan on Operating Budget

CIP Project Description	Cost Category	Cost				
		2019	2020	2021	2022	2023
Wyckoff 42" Finished Water Main	D	\$ -	\$ 80,386	\$ 160,771.64	\$ 160,772	\$ 160,771.64
Mableton Parkway 36" Water Main	D	26,014	104,056	104,056	104,056	104,056
U.S. Highway 41 Parallel 20" Water Main	D	-	-	175,020	175,020	175,020
West Side Loop Section #2 36" Water Main	D	-	-	262,783	525,566	525,566
Blackjack Tank Supply 36" Water Line	D	-	-	-	-	207,430
Wyckoff 42" Raw Water Pipeline Improvements	D	-	-	-	-	306,316
Quarles Water Treatment Plant 1 Replacement	D	-	-	-	1,614,042	1,614,042
Quarles Plant 2 SCADA Replacement	D	-	-	-	-	244,764
Quarles Power Voltage Regulation	D	-	-	-	-	72,378
Quarles Taste & Odor Process Improvements	C/D	-	-	-	275,790	275,790
Quarles Reservoir Cleaning	D	-	-	-	-	123,735
Wyckoff 6MG Clearwell Addition	D	-	-	-	370,740	370,740
Wyckoff Maintenance Building Renovation	D	-	-	-	52,940	52,940
Wyckoff Power Voltage Regulation	D	-	-	-	-	72,378
Wyckoff Thickener Refurbishment and Addition	D	-	-	-	-	193,333
Pete Shaw Tank No. 2 (5 MG)	M/D	-	42,615	125,230	125,230	125,230
2019 AR&R Projects *	D	-	1,421,764	1,421,764	1,421,764	1,421,764
Total Operating Impact from CIP and AR&R Projects		\$ 26,014	\$ 1,648,821	\$ 2,249,625	\$ 4,825,920	\$ 6,046,254
Cost Category		2019	2020	2021	2022	2023
Chemicals (C)					\$ 20,000	\$ 20,000.00
Maintenance (M)				40,000	40,000	40,000
Depreciation (D)		26,014	1,648,821	2,209,625	4,765,920	5,986,254
		\$ 26,014	\$ 1,648,821	\$ 2,249,625	\$ 4,825,920	\$ 6,046,254

* The averaged expected life for AR&R projects is 7 years

Note: Water main replacement projects typically result in zero added maintenance cost and potential failures are difficult to estimate.

Emergency repairs to a water main in the event of failure, over \$10,000, are capitalized as AR&R with no impact to the Operating budget.

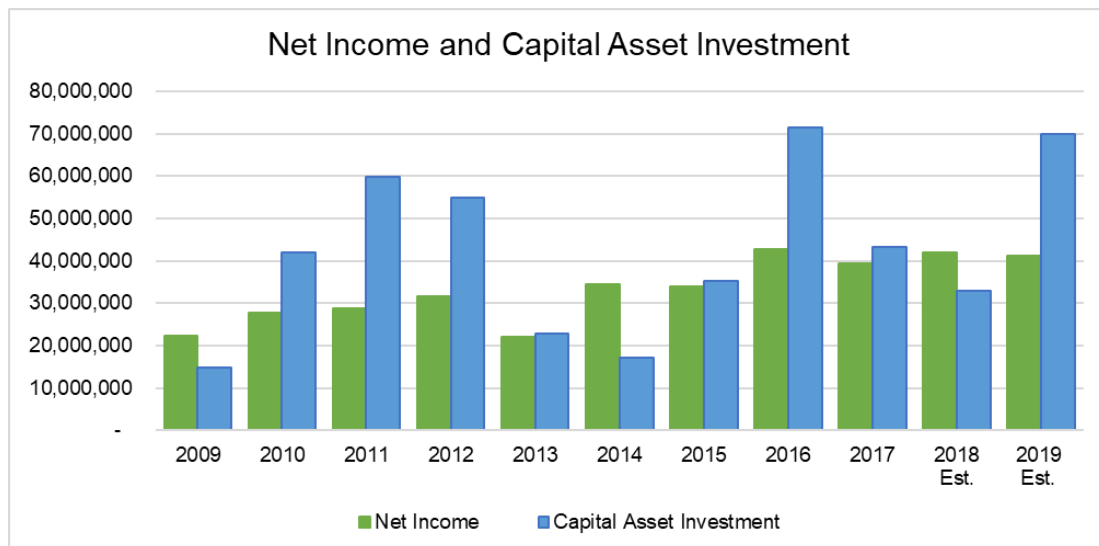
Fund Equity

Cobb County-Marietta Water Authority operates as a proprietary fund and defines **fund equity**, also called net position, as total net assets. Net position is comprised of three components – net investment in capital assets, restricted, and unrestricted. Net income for each fiscal year increases CCMWA's total net position.

	2015 Audited	2016 Audited	2017 Audited	2018 Projected	2019 Budget
Operating Revenues	\$ 80,356,367	\$ 89,655,464	\$ 86,582,223	\$ 90,274,773	\$ 90,997,618
Operating Expenses	45,099,147	46,224,169	46,093,835	48,455,414	49,787,243
Operating Income	35,257,220	43,431,295	40,488,388	41,819,359	41,210,375
Non-Operating Revenue (Expense)	(1,333,152)	(661,803)	(1,098,169)	89,964	1,150
Change in Net Position	33,924,068	42,769,492	39,390,219	41,909,323	41,211,525
Net Position - Beginning	476,030,582	509,954,650	552,724,142	592,114,361	634,023,684
Net Position - Ending	\$ 509,954,650	\$ 552,724,142	\$ 592,114,361	\$ 634,023,684	\$ 675,235,209

Total net position as of December 31, 2017 was \$592,114,361. Total net position is projected to be \$634,023,684 by December 31, 2018 and \$675,235,209 by December 31, 2019. The annual increases in total net position are attributable to CCMWA's planned net income funding capital projects, which are capitalized and depreciated over the assets' useful lives.

CCMWA's capital asset investment has exceeded annual net income in six of the last ten years and funds reserved for capital spending were used to supplement net income to fund 100% of capital. Budgeted capital spending for 2019 is expected to exceed net income and CCMWA plans to once against use reserved funds to continue funding capital projects with cash. If net income and planned capital spending meet the budget expectation in 2019, capital reserves are expected to decrease by \$15.7 million. However, if CCMWA meets its net income expectation and spends 80% of the capital budget, only \$1.7 million of capital reserves will be used in 2019.



Financial Plan

Cobb County-Marietta Water Authority's current financial plan is to use net income to fund capital projects and to avoid issuing debt except under specific conditions. CCMWA employs the pay-as-you-go financing method for funding capital projects by using annual net income and funds reserved for capital spending. Reserves for capital spending do not include operating reserves, which are equal to six months of operating expenses. All CCMWA's capital reserves are held in interest-bearing investments, including money market accounts, certificates of deposit, treasury bonds, and federal agency bonds. Maturities of these investments are timed to match monthly capital outlays of CCMWA's five-year capital improvement plan. Capital outlays beyond the five-year capital improvement plan are estimated with maturities set to fall in each quarter instead of specific months. If annual capital asset investment is less than planned net income, residual net income is invested under the same guidelines and reserved for future capital spending.

Estimated Impact of Capital Improvement Plan on Ending Funds Reserved for Future Capital Spending

	2018 Projected	2019 Estimate	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Projected Water Demand (MGD)	81.10	80.90	77.17	76.95	76.72	76.50
Anticipated Rate Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Operating Revenue	\$ 90,274,773	\$ 90,997,618	\$ 86,657,459	\$ 87,717,779	\$ 89,146,178	\$ 90,576,282
Operating Expenses	(48,455,414)	(49,787,243)	(50,709,458)	(52,350,380)	(53,954,106)	(55,435,794)
Interest and Other Income	2,534,376	2,379,220	1,994,689	1,835,206	1,746,634	1,873,738
Other Expenses	(2,416,359)	(2,378,069)	(2,191,155)	(1,901,517)	(1,608,887)	(1,543,284)
Net Income	<u>41,909,324</u>	<u>41,211,526</u>	<u>35,751,535</u>	<u>35,301,088</u>	<u>35,329,819</u>	<u>35,470,942</u>
Annual Cash Available for Construction	56,000,991	54,075,812	48,966,734	49,147,685	54,962,258	55,478,835
Annual CIP Spending	33,053,102	69,815,298	65,076,720	58,169,651	42,420,056	43,807,036
Ending Funds Reserved for Capital	<u>\$ 207,127,987</u>	<u>\$ 191,388,501</u>	<u>\$ 175,278,515</u>	<u>\$ 166,256,549</u>	<u>\$ 178,798,751</u>	<u>\$ 190,470,550</u>
Increase/(Decrease) in Funds for Capital	\$ 22,947,889	\$ (15,739,486)	\$ (16,109,986)	\$ (9,021,966)	\$ 12,542,202	\$ 11,671,799

CCMWA's Financial Management Policy outlines the criteria that should be considered when planning debt issuance to fund capital improvements. The most heavily weighted criterion is the benefit future users will receive from the capital improvement financed by debt issuance. Future benefit is based on the expected life of the capital improvement, which, if financed with debt, should extend beyond the life of the debt. Additional consideration is placed on the justification for a capital improvement and projects that will expand CCMWA's service area are more likely to be considered eligible for debt financing.

The overall goal of CCMWA's financial plan is to ensure that financial resources are managed in a way that allows our rate structure to reflect the true value of water. By using the pay-as-you-go method, CCMWA has been able to adequately plan for future capital needs and maintain a schedule of proactively replacing and rehabilitating capital infrastructure. This schedule also helps to reduce the likelihood of unexpected equipment and infrastructure failures, which can have a major impact on operating expenses if an emergency repair is needed before a full replacement can be funded.

Staffing Changes

Cobb County-Marietta Water Authority began to experience an increased number of retirements in 2016 and expects this trend to continue, as 31% of the workforce will reach retirement age in the next ten years. CCMWA has used these retirements as an opportunity to assess the needs of each division and reallocate positions throughout the organization to better address identified needs. In some cases, the reallocations result in the creation of new position titles that will not increase the number of full-time equivalent (FTE) positions when filled.

Position reallocations for 2019

- The Asset Manager title has been eliminated and the position reallocated to the Information Technology Division, where an IT Technician will be added to provide additional help desk support.
- A Process Control Analyst from the Maintenance Division has been reallocated to the Information Technology Division with a new title, Business Systems Analyst. This reallocation is intended to recognize the transition of this individual's role from serving the Maintenance Division to providing data analysis across multiple software platforms.

Full Time Equivalent Positions by Division			
Division	2017	2018	2019
Administration	6.00	6.50	5.50
Finance	3.50	3.00	3.00
Engineering	8.00	9.00	9.00
Information Technology	2.00	2.00	4.00
Safety & Security	2.00	2.00	2.00
Hickory Log Creek Reservoir	2.00	2.00	2.00
Wyckoff	35.50	21.00	21.00
Quarles	34.50	21.00	21.00
Maintenance	0.00	27.25	26.25
Laboratory	10.00	10.00	10.00
Transmission	11.00	10.75	10.75
Intern Program	1.50	1.50	1.50
Total Positions	116.00	116.00	116.00

OPERATING BUDGET



Statement of Operations

Statement of Operations	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Revenue						
Water Sales & Base Charges	\$ 89,175,900	\$ 90,228,573	\$ 1,052,673	\$ 90,957,618	\$ 1,781,718	2.00%
Water Testing	31,500	46,200	14,700	40,000	8,500	26.98%
Total Revenue	\$ 89,207,400	\$ 90,274,773	\$ 1,067,373	\$ 90,997,618	\$ 1,790,218	2.01%
Division Expense						
General Operations	\$ 3,083,500	\$ 2,397,417	\$ 686,083	\$ 2,485,100	\$ (598,400)	-19.41%
Depreciation Expense	22,706,250	20,738,467	1,967,783	19,500,000	(3,206,250)	-14.12%
Administration Division	1,051,989	961,365	90,624	918,954	(133,036)	-12.65%
Administration & Rental Buildings	137,700	108,198	29,502	161,600	23,900	17.36%
Finance Division	324,458	321,084	3,374	345,999	21,541	6.64%
Engineering Division	1,303,234	1,214,799	88,436	1,360,104	56,870	4.36%
Information Technology Division	636,451	571,437	65,014	947,242	310,791	48.83%
Safety and Security Division	235,526	221,383	14,143	232,794	(2,733)	-1.16%
Research & Development	2,127,000	968,868	1,158,132	1,226,000	(901,000)	-42.36%
Hickory Log Creek Reservoir Division	474,192	371,182	103,010	461,392	(12,800)	-2.70%
Wyckoff Treatment Plant Division	8,194,228	7,644,042	550,186	8,298,465	104,237	1.27%
Quarles Treatment Plant Division	7,702,328	7,076,820	625,508	7,695,326	(7,003)	-0.09%
Maintenance Division	2,855,838	2,721,525	134,314	2,902,623	46,784	1.64%
Laboratory Division	1,115,143	1,001,373	113,769	1,103,589	(11,553)	-1.04%
Transmission Division	2,279,412	2,137,452	141,961	2,148,056	(131,357)	-5.76%
Total Division Expense	\$ 54,227,250	\$ 48,455,414	\$ 5,771,837	\$ 49,787,243	\$ (4,440,008)	-8.19%
Total Income from Operations	\$ 34,980,150	\$ 41,819,359	\$ 6,839,210	\$ 41,210,375	\$ 6,230,226	17.81%
Other Income						
Interest Income	\$ 1,380,000	\$ 2,556,668	\$ 1,176,668	\$ 2,300,000	\$ 920,000	66.67%
Rental Income	46,512	95,648	49,136	69,220	22,708	48.82%
Gain (Loss) on Asset Disposal	-	(28,053)	(28,053)	-	-	0.00%
Gain (Loss) on Market Value of Investments	-	(683,544)	(683,544)	-	-	0.00%
Reimbursements & Settlements	-	125,274	125,274	-	-	0.00%
Sales Tax Refund	-	376,847	376,847	-	-	0.00%
Timber Sales	-	57,391	57,391	-	-	0.00%
Miscellaneous Income	30,000	6,092	(23,908)	10,000	(20,000)	-66.67%
Total Other Income	\$ 1,456,512	\$ 2,506,323	\$ 1,049,811	\$ 2,379,220	\$ 922,708	63.35%
Other Expense						
Bond Interest - 2009 Revenue Bonds	\$ 870,089	\$ 870,089	\$ -	\$ 714,939	\$ (155,150)	-17.83%
Bond Interest - 2015 Revenue Bonds	1,908,300	1,908,300	-	1,849,142	(59,158)	-3.10%
Amortized Bond Premium	(634,516)	(634,516)	-	(561,100)	73,417	-11.57%
2009 Bond Deferred Charge Amortization	266,635	266,635	-	219,089	(47,546)	-17.83%
Fiscal Agent Fees	7,000	5,852	1,148	6,000	(1,000)	-14.28%
Total Other Expense	\$ 2,417,507	\$ 2,416,359	\$ 1,148	\$ 2,228,070	\$ (189,437)	-7.84%
Net Income Before Extraordinary Items	\$ 34,019,154	\$ 41,909,323	\$ 7,890,169	\$ 41,361,525	\$ 7,342,371	21.58%
Extraordinary Items	150,000	-	150,000	150,000	-	0.00%
Net Income after Extraordinary Items	\$ 33,869,154	\$ 41,909,323	\$ 8,040,169	\$ 41,211,525	\$ 7,342,371	21.68%
Water Production Million Gallons Per Day Average	80.7	81.1	0.4	80.9	0.2	0.25%

General Operations Budget

This operating segment is used to track expenditures related to the operation of the entire organization and includes pension contributions, liability insurance, legal fees, investment advisory fees, board member fees and training, and the employee wellness program.

Highlights

- Decreased allocation for Health Reimbursement Account based on experience in 2018, which was the first year this type of benefit was offered as part of the health insurance package.
- Decrease to Long Term Water Supply Litigation due to progression of court cases. More details about the status of ongoing litigation can be found in the Entity-Wide Non-Financial Goals section.
- Decrease to Public Education & Outreach expense due to filling the Training & Communications Specialist vacancy in 2018, which covers duties that were previously outsourced.

General Operations	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Pension Plan Contributions & Fees	\$ 955,100	\$ 921,651	\$ 33,449	\$ 975,100	\$ 20,000	2.09%
Health Reimbursement Account	125,000	40,000	85,000	75,000	(50,000)	-40.00%
Workers' Compensation Insurance	160,000	117,077	42,923	150,000	(10,000)	-6.25%
Liability Insurance	360,000	288,930	71,070	320,000	(40,000)	-11.11%
Boiler/Machinery Insurance	32,000	30,000	2,000	30,000	(2,000)	-6.25%
Umbrella & Crime Insurance	65,000	63,545	1,455	65,000	-	0.00%
Risk Reduction / Safety Initiative	10,000	2,500	7,500	10,000	-	0.00%
Employee Incentive	17,000	18,000	(1,000)	20,000	3,000	17.65%
Fees - Board Members	34,800	34,800	-	34,800	-	0.00%
Fees - Accounting	2,000	600	1,400	1,000	(1,000)	-50.00%
Fees - Audit	45,000	38,000	7,000	25,000	(20,000)	-44.44%
Lees - Long Term Water Supply Litigation	950,000	650,000	300,000	560,000	(390,000)	100.00%
Fees - Legal	29,000	29,000	-	29,000	-	0.00%
Fees - Drug Testing & Background Checks	8,000	6,000	2,000	8,000	-	0.00%
Fees - Timber Tax	2,000	3,000	(1,000)	2,000	-	100.00%
Technical Services	9,000	9,000	-	9,000	-	0.00%
Travel Expenses	11,000	9,693	1,307	11,000	-	0.00%
Dues and Fees	50,000	45,543	4,457	45,000	(5,000)	-10.00%
Education and Training	14,500	13,710	790	14,500	-	0.00%
Public Education & Outreach	121,000	3,237	117,763	25,000	(96,000)	-79.34%
Bank Fees	4,200	1,400	2,800	1,500	(2,700)	-64.29%
Office Supplies	4,500	5,000	(500)	5,000	500	11.11%
Investment Advisor	40,000	32,330	7,670	35,000	(5,000)	-12.50%
Food	6,000	6,000	-	6,000	-	0.00%
Books and Periodicals	400	400	-	200	(200)	-50.00%
Employee Wellness Program	28,000	28,000	-	28,000	-	0.00%
General Operating Expense:	\$ 3,083,500	\$ 2,397,417	\$ 686,083	\$ 2,485,100	\$ (598,400)	-19.41%
Depreciation Expense	22,706,250	20,738,467	1,967,783	19,500,000	(3,206,250)	-14.12%
Total Operating Expense	\$25,789,750	\$23,135,884	\$ 2,653,866	\$21,985,100	\$ (3,804,650)	-14.75%

Administration Division

The Administration Division is responsible for several functions that impact the entire organization. The roles of General Manager, Director of Operations, Human Resources, and Training & Communications are functions of this division.

2018 Achievements

- Glenn Page, General Manager, received the George Warren Fuller Award from the Georgia section of the American Water Works Association for distinguished service to the water supply field.
- CCMWA was honored as part of Georgia's Clean 13 by the Georgia Water Coalition for water conservation leadership that reduced demands on the Etowah River and Allatoona Lake.

Budget Highlights

- Full time equivalent positions reduced from 6.5 to 5.5 due to the elimination of the Asset Manager position and the reallocation of the position to Information Technology.
- Decrease in Salaries & Wages, Employee Benefits, FICA, and Medicare to reflect reduction in positions.

Administration	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 820,577	\$ 741,805	\$ 78,772	\$ 693,617	\$ (126,960)	-15.47%
Overtime Wages	500	-	500	-	(500)	-100.00%
Employee Benefits	125,000	125,000	-	112,564	(12,436)	-9.95%
FICA - Employer Share	50,907	39,300	11,607	43,005	(7,902)	-15.52%
Medicare - Employer Share	11,906	10,765	1,141	10,058	(1,848)	-15.52%
Travel Expense	13,862	13,862	-	14,860	998	7.20%
Dues and Fees	2,000	2,000	-	3,200	1,200	60.00%
Education and Training	6,358	8,064	(1,706)	16,100	9,742	153.22%
Uniforms	1,200	821	379	1,050	(150)	-12.50%
Total Personnel Costs	\$ 1,032,309	\$ 941,617	\$ 90,692	\$ 894,454	\$ (137,856)	-13.35%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 400	\$ 300	\$ 100	\$ 1,500	\$ 1,100	275.00%
Communications	9,600	9,600	-	13,500	3,900	40.63%
Office Supplies	4,000	4,000	-	4,900	900	22.50%
Gasoline, Oil, & Diesel Fuel	200	200	-	300	100	50.00%
Food	3,180	3,492	(312)	2,800	(380)	-11.95%
Small Equipment	1,900	1,880	20	1,000	(900)	-47.37%
Safety Supplies & Equipment	400	276	124	500	100	25.00%
Total Non-Personnel Costs	\$ 19,680	\$ 19,748	\$ (68)	\$ 24,500	\$ 4,820	24.49%
Total Administration Expense	\$ 1,051,989	\$ 961,365	\$ 90,624	\$ 918,954	\$ (133,036)	-12.65%

Goals and Objectives – Administration Division

#1

Strategic Initiative: Communication Enhancements

Objective: Improve the public's understanding of the value of water

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Number of public outreach speaking engagements	≥ 4	> 3	> 3	> 3	5
Number of presentations at water conferences	≥ 2	N/A	N/A	2	3
Months since last update to CCMWA website	≤ 6	> 12	> 12	> 12	0

CCMWA strives to be proactive in water conservation efforts and furtherance of both water quality awareness and overall public outreach. In past years, CCMWA has typically conducted public outreach three times per year in conjunction with Cobb County Water System through the **waterSmart** campaign to educate elementary through high school students about the importance of water and conserving and protecting our most precious natural resource. However, to increase our engagement with the public, we have set a benchmark to double our public outreach speaking engagement and set a benchmark to present at least two times at water conferences to demonstrate CCMWA's commitment to becoming a leader in the drinking water industry.

Historically CCMWA's website has been updated only when board or staff contact information has changed and the website has not been used to further our public outreach efforts. CCMWA's website will be redesigned in 2019 and updated to a platform that will allow staff to update content on a regular basis. We have set a benchmark that website content will be updated at least every six months, but plan to update content monthly in 2019 after the new website is launched.

#2

Strategic Initiative: Workforce Development

Objective: Attract top-talented personnel

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Number of days to fill open positions	50	N/A	N/A	79	55

Before 2018, CCMWA had a very low turnover rate and the number of days to fill an open position was not tracked. The turnover rate has increased due to retirements and there are currently 41 employees that have worked for CCMWA for over 20 years. As these employees become eligible for retirement, the turnover rate will rise and a low number of days to fill open positions will ensure the Authority is sufficiently staffed.

#3

Strategic Initiative: Workforce Development

Objective: Develop a highly competent, committed, and supported workforce

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Average training hours per employee	47	N/A	N/A	N/A	30

CCMWA plans to purchase a Learning Management System in 2019 to facilitate and track employee training. This effort will be led by the Training & Communications Specialist and will incorporate classroom and online training. According to *Training Magazine's* Training Industry Report, 47 is the national average of training hours per employee.

#4

Strategic Initiative: Workforce Development
Objective: Retain talented personnel

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Annualized voluntary turnover rate	< 2.0%	N/A	2.7%	0.9%	< 2.0%

Historically, CCMWA's turnover rate has been very low; however, tracking the annualized voluntary turnover rate will help us gauge workforce morale and identify issues that may contribute to employees leaving the Authority.

#5

Strategic Initiative: Preparedness/Security
Objective: Maintain continuity of service

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Time since last Vulnerability Assessment update	< 5 years	13	14	15	0
Time since last Business Continuity Plan update	< 5 years	0	1	0	1
Time since last Business Continuity Plan exercise	≤ 1 year	0	1	0	0
Time since last Drought Contingency Plan update	< 4 years	0	1	2	3

The United States EPA has set a requirement that Vulnerability/Risk & Resiliency Plans be updated no less than every five years. As a result, CCMWA's Business Continuity Plan (BCP) will need to be updated on the same schedule to make the Risk & Resiliency Plan viable. For the BCP to be useful, staff should be familiar with the plan; therefore, management believes a yearly table top exercise is needed. The Georgia Environmental Protection Division conducts a Sanitary Survey of CCMWA once every four years and necessitates update of the Drought Contingency Plan at each inspection.

#6

Strategic Initiative: Communication Enhancements
Objective: Maintain positive communications with customers

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Customer Service satisfaction survey score	> 90%	N/A	N/A	N/A	≥ 90%
Number of individual customer outreach meetings	> 10	1	1	1	≥ 10

CCMWA has never conducted a customer service satisfaction survey but plans to develop this survey in 2019 and collect the first year of results. Our benchmark is at least 90%; however, this baseline is based on a preferred response, not a historical measurement.

CCMWA has historically held a single customer outreach meeting with representatives from all customers in attendance. We would like to have individual meetings in the future with the ten customers that make monthly water purchases to ensure we are meeting their expectations.

Administration and Rental Buildings

This operating segment is managed by the Administration Division and is used to track expenditures related to the Administration & Engineering building and CCMWA's rental properties. The rental properties owned by CCMWA include the organization's previous Administration & Engineering office building and the "1190 Building" located on the same property as the current Administration & Engineering office.

Budget Highlights

- Increase to General Maintenance & Repairs for the Administration Building for ductwork cleaning and minor cosmetic repairs.

	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Administration and Rental Buildings						
Cleaning Services	\$ 12,500	\$ 9,770	\$ 2,730	\$ 17,000	\$ 4,500	36.00%
General Maint. & Repairs - Admin Building	20,000	15,000	5,000	43,000	23,000	115.00%
General Maint. & Repairs - Rental Buildings	20,000	15,975	4,025	20,000	-	0.00%
Security Supplies & Maintenance	12,000	5,000	7,000	12,000	-	0.00%
Grounds Maintenance	22,000	12,073	9,927	15,000	(7,000)	-31.82%
Natural Gas	3,000	2,655	345	3,000	-	0.00%
Electricity	39,800	39,800	-	43,200	3,400	8.54%
Water Purchases	2,200	1,834	366	2,000	(200)	-9.09%
Sewer / Wastewater Handling	1,700	2,238	(538)	2,200	500	29.41%
Janitorial Supplies	1,500	1,500	-	1,600	100	6.67%
Small Equipment	3,000	2,354	646	2,600	(400)	-13.33%
Total Admin. & Rental Buildings Expense	\$ 137,700	\$ 108,198	\$ 29,502	\$ 161,600	\$ 23,900	17.36%

Finance Division

The Finance Division is responsible for coordination and administration of financial and accounting functions of CCMWA, including accounts payable and payroll. The division manages the development and implementation of the annual budget, maintains the chart of accounts and cash flow model, ensures accounting compliance with GASB and FASB, oversees the work of CCMWA's investment advisor, and coordinates the annual financial audit.

2018 Achievements

- Received the Government Finance Officers Association Distinguished Budget Presentation Award for the 2018 budget document.
- Received the Government Finance Officers Association Excellence in Financial Reporting Award for the 2017 Comprehensive Annual Financial Report (CAFR).

Budget Highlights

- Increase to Salaries & Wages expense due to annual merit increase and one staff member obtaining a professional license.
- Increase to Travel and Education and Training expenses for staff to attend conferences and work on finance-related certifications and advanced degrees.

Finance Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 238,405	\$ 238,405	\$ -	\$ 262,359	\$ 23,954	10.05%
Employee Benefits	40,000	35,476	4,524	36,168	(3,832)	-9.58%
FICA - Employer Share	14,781	14,781	-	16,267	1,486	10.05%
Medicare - Employer Share	3,457	3,364	93	3,805	348	10.07%
Travel Expense	2,100	1,993	107	3,500	1,400	66.67%
Dues and Fees	1,165	330	835	500	(665)	-57.08%
Education and Training	10,400	14,204	(3,804)	11,400	1,000	9.62%
Uniforms	600	500	100	450	(150)	-25.00%
Total Personnel Costs	\$ 310,908	\$ 309,053	\$ 1,855	\$ 334,449	\$ 23,541	7.57%
Non-Personnel Costs						
Communications	\$ 6,500	\$ 5,431	\$ 1,069	\$ 5,300	\$ (1,200)	-18.46%
Office Supplies	6,000	6,000	-	5,500	(500)	-8.33%
Food	900	500	400	600	(300)	-33.33%
Safety Supplies & Equipment	150	100	50	150	-	0.00%
Total Non-Personnel Costs	\$ 13,550	\$ 12,031	\$ 1,519	\$ 11,550	\$ (2,000)	-14.76%
Total Finance Division Expense	\$ 324,458	\$ 321,084	\$ 3,374	\$ 345,999	\$ 21,541	6.64%

Goals and Objectives – Finance Division

#1

Strategic Initiative: Financial Strength**Objective:** Preserve high bond rating

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Bond credit rating, assigned or reaffirmed by credit rating agencies	AAA	AAA	AAA	AAA	AAA

A bond credit rating is a financial indicator to potential investors of debt securities, such as bonds, and are assigned by credit rating agencies such as Moody's, Standard & Poor's and Fitch Ratings. CCMWA's bond rating was first affirmed at AAA in 2002 by all three rating agencies.

#2

Strategic Initiative: Financial Strength**Objective:** Maintain minimum monthly reserve balance

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of year that reserve balance met minimum requirement	100%	100%	100%	100%	100%

CCMWA's Financial Management Policy requires a cash reserve at an amount equal to no less than two months of operating and debt expenditures. For planning purposes and to ensure adequate funds are available to meet current obligations, a cash reserve goal is set at an amount equal to six months of operating expenses. The required reserve balance for fiscal year 2018 was \$9 million and will be \$8.3 million for fiscal year 2019.

#3

Strategic Initiative: Financial Strength**Objective:** Maintain an adequate debt service coverage ratio

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Debt Service Coverage Ratio	> 1.5	7.4	7.1	7.4	7.1

The debt service coverage ratio is a measure of cash flow available to pay current debt obligations. For CCMWA, this ratio is calculated by dividing net income, exclusive of depreciation, interest expense and fiscal charges, by current debt related liabilities. A debt service coverage ratio greater than 1 indicates that the entity has sufficient income to pay its current debt obligations.

#4

Strategic Initiative: Financial Strength**Objective:** Reduce operating costs associated with accounts payable

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of vendors receiving electronic payments and remittance notifications	> 20%	1%	2%	4%	8%

CCMWA has approximately 750 active vendors and the materials-only cost of issuing a paper check is \$0.96. By converting a vendor that receives 12 payments per year to electronic payments and remittance notifications, a savings of \$11.52 is realized. According to NACHA, the Electronic Payments Association, ACH transactions accounted for 32% of business-to-business payments in 2017.

Engineering Division

The Engineering Division plans, coordinates, and implements capital projects for CCMWA. Recommendations from the Engineering Division drive the strategic decisions made by CCMWA in relation to capital improvement projects. When a capital project is planned, a member of the Engineering Division is assigned as project manager and is responsible for engineering and construction coordination, as well as overall project management. The Engineering Division provides strategic and regulatory guidance for operations and is also charged with development and maintenance of CCMWA's GIS platform.

Budget Highlights

- Increase to Salaries & Wages expense due to promotions awarded during 2018.
- Increase to Small Equipment expense to purchase replacement parts for monitoring equipment.
- Decrease to various expense line items based on historical spending.

Engineering Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 970,213	\$ 944,783	\$ 25,430	\$ 1,034,419	\$ 64,206	6.62%
Employee Benefits	130,000	134,731	(4,731)	131,551	1,551	1.19%
FICA - Employer Share	60,153	55,867	4,286	64,134	3,981	6.62%
Medicare - Employer Share	14,068	13,066	1,002	15,000	932	6.62%
Travel Expense	31,000	11,408	19,592	28,000	(3,000)	-9.68%
Dues and Fees	2,000	2,000	-	2,000	-	0.00%
Education and Training	21,000	6,583	14,417	19,000	(2,000)	-9.52%
Uniforms	2,900	600	2,300	1,500	(1,400)	-48.28%
Total Personnel Costs	\$ 1,231,334	\$ 1,169,038	\$ 62,296	\$ 1,295,604	\$ 64,270	5.22%
Non-Personnel Costs						
Technical Services	\$ 10,000	\$ 121	\$ 9,879	\$ 6,000	\$ (4,000)	-40.00%
Automotive Maintenance & Repairs	10,000	5,000	5,000	8,000	(2,000)	-20.00%
Communications	28,000	18,990	9,010	23,000	(5,000)	-17.86%
Office Supplies	5,000	5,739	(739)	6,000	1,000	20.00%
Gas, Oil & Diesel	8,000	6,492	1,508	6,500	(1,500)	-18.75%
Food	3,000	3,000	-	3,000	-	0.00%
Small Equipment	5,000	5,050	(50)	9,000	4,000	80.00%
Safety Supplies & Equipment	2,900	1,368	1,532	3,000	100	3.45%
Total Non-Personnel Costs	\$ 71,900	\$ 45,760	\$ 26,140	\$ 64,500	\$ (7,400)	-10.29%
Total Engineering Expense	\$ 1,303,234	\$ 1,214,799	\$ 88,436	\$ 1,360,104	\$ 56,870	4.36%

Goals and Objectives – Engineering Division

#1

Strategic Initiative: Infrastructure Sustainability

Objective: Maintain a sustainable capital infrastructure program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of AR&R projects that require Engineering input in progress by end of year	100%	90%	100%	100%	100%
Percent of AR&R projects that require Engineering input completed during year	50%	14%	33%	54%	50%

The Engineering Division provides assistance to maintenance and operations staff on larger AR&R projects that require the use of an external engineering firm or construction company. For 2019, there are 12 AR&R projects that will require input from the Engineering Division and these projects represent 68% of the total AR&R budget for 2019. By ensuring that these projects are completed in a timely manner, the division can contribute to CCMWA meeting its spending target for capital projects.

#2

Strategic Initiative: Infrastructure Sustainability

Objective: Maintain a sustainable capital infrastructure program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of Aged Pipe Replacement Program projects in design or construction phase by end of year	100%	100%	100%	100%	100%
Percent of plant and tank projects in design or construction phase by end of year	100%	100%	100%	100%	100%

The Engineering Division is responsible for planning and managing all of CCMWA's major capital projects. For 2019 this includes five Aged Pipe Replacement projects, five plant projects, and one water storage tank project. These projects represent 81% of the total 2019 capital improvement budget. By ensuring that these projects progress on schedule, the division can contribute to CCMWA meeting its spending target for capital projects.

#3

Strategic Initiatives: Water Quality and Information Management

Objective: Make data-driven decisions

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of Research & Development initiatives assigned to Engineering in progress by end of year, with at least 75% of budget expended	100%	N/A	N/A	41%	100%

The Research & Development (R&D) budget is used to track initiatives in areas outside of CCMWA's normal operations. Items in this budget can include business case evaluations, studies, and work towards drafting organization-wide policies and documents, such as the Information Technology Master Plan. The Engineering Division is responsible for 14 of the initiatives in the 2019 R&D budget. Historically, CCMWA has not expended all the R&D budget due to staff having limited time to dedicate to these projects. The R&D budget for 2019 was reduced to a more reasonable level to help ensure that at least 75% of the budget is expended each year.

Information Technology Division

The Information Technology Division is responsible for installing, monitoring, and maintaining CCMWA's information technology equipment and infrastructure. The Division ensures the integrity and reliability of CCMWA's network by performing regular security monitoring and backup procedures. The Information Technology Division also operates the Help Desk for all CCMWA locations, manages the phone system and mobile communications contracts, and oversees all purchases of computer hardware and software.

Budget Highlights

- Full time equivalent positions increased from two to four due to positions reallocated from the Administration and Maintenance Divisions.
- Increase to Salaries & Wages, Employee Benefits, FICA, and Medicare expense due to additional positions and a planned promotion in 2019.
- Increase to Education and Training expense to continue staff training towards professional certifications.
- Increase to Admin – Software Renewals & Support expense to purchase Learning Management System which will be used by Human Resources and the Training and Communications Specialist to deliver employee training and track training hours.
- Increase to Maintenance – Software Renewals & Support expense to renew licenses of new SCADA security software installed as part of prior year capital projects.



	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Information Technology						
Personnel Costs						
Salaries & Wages	\$ 189,433	\$ 181,546	\$ 7,887	\$ 308,065	\$ 118,632	62.62%
Overtime Wages	1,000	100	900	1,000	-	0.00%
Employee Benefits	32,000	32,000	-	60,552	28,552	89.22%
FICA - Employer Share	11,807	10,810	996	19,163	7,356	62.30%
Medicare - Employer Share	2,761	2,528	233	4,482	1,721	62.32%
Travel Expense	933	933	-	1,500	567	60.77%
Dues and Fees	250	139	111	150	(100)	-40.00%
Education and Training	6,670	6,670	-	10,000	3,330	49.93%
Uniforms	197	150	47	300	103	52.28%
Total Personnel Costs	\$ 245,051	\$ 234,877	\$ 10,175	\$ 405,212	\$ 160,161	65.36%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 1,100	\$ 1,100	\$ -	\$ 500	\$ (600)	-54.55%
Communications	5,000	4,117	883	5,000	-	0.00%
Office Supplies	2,000	1,400	600	1,500	(500)	-25.00%
Gas, Oil & Diesel	1,000	1,000	-	1,000	-	0.00%
Food	300	200	100	300	-	0.00%
Safety Supplies & Equipment	500	100	400	200	(300)	-60.00%
General - Software, Renewals and Support	3,000	166	2,834	1,500	(1,500)	-50.00%
General - Technology, PCs & Peripherals	5,000	4,350	650	5,000	-	0.00%
Admin - Software, Renewals and Support	18,500	16,365	2,135	41,380	22,880	123.68%
Admin - Technology, PCs & Peripherals	2,000	1,936	64	4,800	2,800	140.00%
HLC - Software, Renewals and Support	10,500	8,346	2,154	10,500	-	0.00%
HLC - Technology, PCs & Peripherals	6,000	4,790	1,210	1,500	(4,500)	-75.00%
Finance - Software, Renewals and Support	14,000	11,925	2,075	14,200	200	1.43%
Finance - Technology, PCs & Peripherals	3,000	2,196	804	3,200	200	6.67%
Wyckoff - Software, Renewals & Support	10,000	8,824	1,176	14,200	4,200	42.00%
Wyckoff - Technology, PCs & Peripherals	7,500	4,457	3,043	6,800	(700)	-9.33%
Quarles - Software, Renewals & Support	12,000	8,550	3,450	14,750	2,750	22.92%
Quarles - Technology, PCs & Peripherals	14,000	4,420	9,580	3,000	(11,000)	-78.57%
Trans - Software, Renewals & Support	9,000	9,000	-	12,000	3,000	33.33%
Trans - Technology, PCs & Peripherals	6,000	5,849	151	9,000	3,000	50.00%
Maint - Software, Renewals & Support	105,500	100,000	5,500	202,000	96,500	91.47%
Maint - Technology, PCs & Peripherals	21,500	21,394	106	25,000	3,500	16.28%
Engineer - Software, Renewals & Support	25,000	22,000	3,000	29,950	4,950	19.80%
Engineer - Technology, PCs & Peripherals	9,000	8,745	255	23,900	14,900	165.56%
Lab - Software, Renewals & Support	16,000	14,845	1,155	18,500	2,500	15.63%
Lab - Technology, PCs & Peripherals	11,500	9,974	1,526	8,000	(3,500)	-30.43%
IT - Software, Renewals & Support	42,000	42,000	-	58,000	16,000	38.10%
IT - Technology, PC's & Peripherals	12,500	9,974	2,526	9,000	(3,500)	-28.00%
S&S - Software, Renewals & Support	16,000	6,963	9,037	14,350	(1,650)	-10.31%
S&S - Technology, PC's & Peripherals	2,000	1,576	424	3,000	1,000	50.00%
Total Non-Personnel Costs	\$ 391,400	\$ 336,561	\$ 54,839	\$ 542,030	\$ 150,630	38.48%
Total Information Technology Expense	\$ 636,451	\$ 571,437	\$ 65,014	\$ 947,242	\$ 310,791	48.83%

Goals and Objectives – Information Technology Division

#1

Strategic Initiative: Preparedness/Security
Objective: Ensure business viability

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Average response time to a new help desk ticket	≤ 24 hours	N/A	N/A	N/A	≤ 24
Average time to resolve and close a help desk ticket	≤ 3 days	N/A	N/A	N/A	≤ 3

The IT Division provides help desk support to all CCMWA employees and requests are entered through an email ticketing system. Any verbal request for support from IT staff is also assigned a help desk ticket. Requestors cannot assign a priority to their ticket, but the internal benchmark is for IT staff to accept and initiate contact on each ticket within 24 hours on average. The internal benchmark for resolving and closing a ticket is an average of three working days from the day of the initial request. The capability to track tickets was not available until the end of 2018 but will be used by CCMWA going forward.

#2

Strategic Initiative: Preparedness/Security
Objective: Improve network security against cyber-attacks and external threats

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of employees that fail surprise phishing email test	0%	N/A	N/A	8.7%	0%

The Authority began using the KnowB4 program in 2018 to train employees on how to identify scam or phishing emails. All employees have completed the initial training and new hires will complete the training during onboarding. Throughout 2019, the IT Division will use KnowB4 to send test emails disguised as potential phishing scams to employees, and any employee that clicks on the email's link will be notified that they must retake the KnowB4 training. Through use of this program, the Authority hopes to reach a benchmark of zero failures on an annual basis.

#3

Strategic Initiative: Preparedness/Security
Objective: Improve operability of end-user devices

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of workstations with Windows 10 Operating System installed	100%	N/A	N/A	45%	55%

During 2018, the Authority began upgrading newer workstations to the Windows 10 Operating System. Over the next few years, all new computers will be purchased with Windows 10 to work towards the benchmark of 100% of workstations using the same operating system. By ensuring that workstations are consistent, the IT Division can streamline process for installing updates and provide faster support.

Safety and Security Division

The Safety and Security Division is responsible for promoting CCMWA's safety culture, training employees on safety practices, monitoring the security of all CCMWA facilities, and establishing security procedures. The Division regularly inspects all CCMWA buildings and grounds for security or safety threats, maintains all access control systems, and monitors security cameras and alarms.

Budget Highlights

- Decrease to Employee Benefits expense due to a reduction in the cost of health insurance premiums paid by CCMWA.

Safety & Security	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 152,964	\$ 145,430	\$ 7,534	\$ 154,776	\$ 1,812	1.18%
Overtime Wages	2,100	1,500	600	1,000	(1,100)	-52.38%
Employee Benefits	46,000	45,219	781	42,200	(3,800)	-8.26%
FICA - Employer Share	9,614	8,462	1,152	9,659	45	0.47%
Medicare - Employer Share	2,248	1,971	277	2,259	11	0.47%
Travel Expense	2,500	1,387	1,113	2,500	-	0.00%
Dues and Fees	2,000	2,084	(84)	2,500	500	25.00%
Education and Training	5,000	2,953	2,047	5,000	-	0.00%
Uniforms	800	800	-	300	(500)	-62.50%
Total Personnel Costs	\$ 223,226	\$ 209,806	\$ 13,421	\$ 220,194	\$ (3,033)	-1.36%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 1,815	\$ 2,307	\$ (492)	\$ 1,000	\$ (815)	-44.90%
Communications	3,300	2,877	423	3,500	200	6.06%
Office Supplies	1,800	1,000	800	1,800	-	0.00%
Gasoline, Oil, & Diesel Fuel	2,685	2,685	-	3,000	315	11.73%
Food	1,000	800	200	900	(100)	-10.00%
Small Equipment	400	516	(116)	400	-	0.00%
Safety Supplies & Equipment	1,300	1,392	(92)	2,000	700	53.85%
Total Non-Personnel Costs	\$ 12,300	\$ 11,578	\$ 722	\$ 12,600	\$ 300	2.44%
Total Safety & Security Expense	\$ 235,526	\$ 221,383	\$ 14,143	\$ 232,794	\$ (2,733)	-1.16%

Goals and Objectives – Safety & Security Division

#1

Strategic Initiative: Safety Culture**Objective:** Develop a fully trained, educated, and safety aware workforce

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of employees that are First Aid, CPR, and AED certified in the last 2 years	> 90%	N/A	90%	95%	> 90%
Percent of employees that have completed field-safety training in the last 2 years	> 90%	N/A	80%	80%	> 90%
Percent of employees that have completed Defensive Driving course in the last 3 years	> 90%	N/A	95%	80%	> 90%

The Safety & Security Division provides First Aid/CPR/AED and field-safety training (confined space, fall protection, and trenching) to employees every two years. Defensive Driving training is offered every three years. All employees are required to take First Aid/CPR/AED and Defensive Driving training, but field-safety training is only required for employees that work outside of an office setting. The benchmark of at least 90% of employees considers possible differences in hire dates and course scheduling.

#2

Strategic Initiative: Safety Culture**Objective:** Ensure continuous improvement of the Safety Program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Time since last update of the Safety Manual	≤ 12 months	0	0	12	0
Number of safety audits performed by outside firm each year	≥ 2	2	2	2	2
Number of meetings of the CCMWA Safety Committee each year	≥ 6	6	6	6	6

CCMWA's Safety Manual should be a living document and should be updated at least every year to maintain its viability and usefulness. A benchmark of two external safety audits per year has been established to maintain ensure a third party that is professionally trained in safety is on-site once every six months. By conducting safety audits, we can track that safety recommendations are being implemented and demonstrate CCMWA's dedication to safety in the workplace. To encourage non-management staff involvement in safety initiatives and demonstrate management's concern about safety, a Safety Committee has been established and should meet once every two months to review accidents/incidents and make recommendations for safety improvements.

#3

Strategic Initiative: Preparedness/Security**Objective:** Maintain continuity of service

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Number of tabletop and/or field exercises conducted in response to possible threat or emergency scenarios	≥ 4	0	0	0	4

A benchmark of quarterly (once every three months) table top exercises on applicable threat and emergency scenarios will help keep staff aware of threats and prepare staff in the case of a real emergency. Historically, CCMWA has not conducted regular table top exercises, but with continued occurrences of mass shootings, workplace violence, thefts, terrorism, and cybercrime, management believes training for these scenarios is prudent.

#4

Strategic Initiative: Preparedness/Security**Objective:** Maintain continuity of service

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of employees that have completed Active Shooter training in the last year	> 90%	N/A	N/A	100%	100%

Beginning in 2018, every CCMWA employee will be required to complete Active Shooter training during their initial onboarding and a refresher course is required on an annual basis thereafter. At all times, 100% of employees should have received training on this topic in the last year. CCMWA hopes to provide employees with the knowledge necessary to respond to an incident that threatens their personal safety.



Research and Development

The Research and Development segment is used to track costs associated with resource management efforts, program development, and the evaluation of potential future capital projects. Most projects within this budget are a joint effort between Operations and Engineering staff.

Research and Development	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Other Professional Services	\$ 100,000	\$ 15,722	84,278	\$ 25,000	\$ (75,000)	-75.00%
Hydraulic Model	67,000	5,115	61,885	75,000	8,000	11.94%
Asset Management Plan	50,000	16,457	33,543	-	(50,000)	-100.00%
Miscellaneous Engineering	100,000	770	99,230	45,000	(55,000)	-55.00%
Security, SCADA, & I.T. Evaluation	20,000	-	20,000	-	(20,000)	-100.00%
Effective Utility Management	27,000	1,998	25,002	-	(27,000)	-100.00%
Business Case Evaluation Program	84,000	34,480	49,520	75,000	(9,000)	-10.71%
CIP Master Plan	11,220	-	11,220	50,000	38,780	345.63%
GIS Easement Project	34,000	-	34,000	25,000	(9,000)	-26.47%
Energy Optimization Program	34,000	42,710	(8,710)	50,000	16,000	47.06%
WRF Study & Georgia Tech Pilot Study	10,000	8,703	1,297	15,000	5,000	50.00%
Surveying - Easements & Legal	35,000	29,599	5,401	30,000	(5,000)	-14.29%
Pressure Transient Wave Classification	34,000	31,665	2,335	-	(34,000)	-100.00%
Quarles Taste & Odor Control Study	100,000	100,000	-	-	(100,000)	-100.00%
Corrosion Control Study	134,000	134,000	-	200,000	66,000	49.25%
Safety Audits	10,000	-	10,000	10,000	-	0.00%
Upper Etowah Resource Management	16,200	16,173	27	20,000	3,800	23.46%
Long Term Water Supply	500,000	10,147	489,853	15,000	(485,000)	-97.00%
Allatoona Lake Clean-up / Monitoring	10,000	7,026	2,974	8,000	(2,000)	-20.00%
Pipeline Investigations	117,000	133,231	(16,231)	50,000	(67,000)	-57.26%
Wyckoff Raw Water Line Replacement Study	34,000	34,000	-	-	(34,000)	-100.00%
Website & Communications Development	67,000	12,680	54,320	15,000	(52,000)	-77.61%
Information System Management Study	67,000	67,000	-	50,000	(17,000)	-25.37%
Aged Pipe Program Support	24,000	21,154	2,846	10,000	(14,000)	-58.33%
Workforce Development	50,000	50,000	-	20,000	(30,000)	-60.00%
GIS Platform Services	119,000	94,660	24,340	100,000	(19,000)	-15.97%
QTD Chemical Building - Structural Review	34,000	-	34,000	-	(34,000)	-100.00%
Production Meter Testing	67,000	-	67,000	-	(67,000)	-100.00%
Payments to Other Agencies	101,580	101,579	1	68,000	(33,580)	-33.06%
Syrinx and Echologics Monitoring	-	-	-	20,000	20,000	100.00%
QTD Recycle Pump Project BCE	-	-	-	25,000	25,000	100.00%
Residuals Management Study	-	-	-	175,000	175,000	100.00%
External Pipeline Corrosion Control Program	-	-	-	50,000	50,000	100.00%
Contingency	70,000	-	70,000	-	(70,000)	-100.00%
Total Research & Development Expense	\$ 2,127,000	\$ 968,868	\$ 1,158,132	\$ 1,226,000	\$ (901,000)	-42.36%

Hickory Log Creek Reservoir Division

The Hickory Log Creek Reservoir Division consists of a 411-acre reservoir and a 44 MGD intake/pumping system located in the City of Canton, in Cherokee County. The Hickory Log Creek management office is located adjacent to the reservoir. The project withdraws water from the Etowah River and impounds water from Hickory Log Creek to fill the 5.77 billion gallon reservoir. The project supplies water to the Wyckoff Water Treatment Plant by supplementing flow into Allatoona Lake through releases of water from the reservoir into the Etowah River. The project is jointly owned by CCMWA (75% ownership) and the City of Canton (25% ownership).

Budget Highlights

- Increase to Salaries & Wages, Employee Benefits, FICA, and Medicare expense due to promotions.
- Decrease to Biological Monitoring expense which is not required for fiscal year 2019.



	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Hickory Log Creek Reservoir Division						
Personnel Costs						
Salaries & Wages	\$ 103,398	\$ 100,692	\$ 2,706	\$ 111,448	\$ 8,050	7.79%
Overtime Wages	6,750	3,255	3,495	6,750	-	0.00%
Employee Benefits	31,005	35,230	(4,225)	34,125	3,120	10.06%
FICA - Employer Share	6,978	6,010	969	7,621	643	9.21%
Medicare - Employer Share	1,632	1,405	227	1,783	151	9.25%
Travel Expense	1,500	-	1,500	1,500	-	0.00%
Dues and Fees	1,650	1,100	550	1,650	-	0.00%
Education and Training	3,000	200	2,800	3,000	-	0.00%
Uniforms	900	700	200	900	-	0.00%
Total Personnel Costs	\$ 156,813	\$ 148,592	\$ 8,021	\$ 168,777	\$ 11,964	7.63%
Non-Personnel Costs						
Engineering Services - Dam	\$ 29,850	\$ 10,967	\$ 18,883	\$ 30,900	\$ 1,050	3.52%
Technical Services	12,375	2,754	9,621	11,100	(1,275)	-10.30%
Motor/Gear Inspections	1,125	563	563	1,125	-	0.00%
Biological Monitoring	22,875	22,875	-	-	(22,875)	-100.00%
USGS Monitoring	25,125	23,450	1,675	25,125	-	0.00%
General Maintenance & Repairs	28,568	15,000	13,568	25,632	(2,936)	-10.28%
Electrical Maintenance & Repairs	6,750	6,750	-	3,000	(3,750)	-55.56%
Coatings Maintenance & Repairs	7,500	-	7,500	7,500	-	0.00%
SCADA Maintenance & Repairs	9,023	3,000	6,023	6,000	(3,023)	-33.50%
Security Maintenance & Repairs	8,250	6,029	2,221	8,250	-	0.00%
Automotive Maintenance & Repairs	1,725	844	881	1,725	-	0.00%
Grounds Maintenance	17,775	13,538	4,237	18,000	225	1.27%
Rental of Equipment and Vehicles	375	-	375	375	-	0.00%
Liability Insurance	38,545	38,545	-	44,300	5,755	14.93%
Communications	7,500	7,500	-	5,595	(1,905)	-25.40%
Office Supplies	1,500	1,500	-	1,500	-	0.00%
Natural Gas	2,700	825	1,875	2,700	-	0.00%
Electricity	75,000	62,061	12,939	75,000	-	0.00%
Gas, Oil & Diesel	2,363	1,128	1,235	2,363	-	0.00%
Laboratory Supplies and Chemicals	450	200	250	450	-	0.00%
Food	375	250	125	375	-	0.00%
Water Purchases	3,600	336	3,264	1,875	(1,725)	-47.92%
Janitorial Supplies	525	400	125	525	-	0.00%
Small Equipment	1,950	1,075	875	2,325	375	19.23%
Safety Supplies & Equipment	7,500	3,000	4,500	7,500	-	0.00%
Contingency	4,055	-	4,055	9,375	5,320	131.20%
Total Non-Personnel Costs	\$ 317,379	\$ 222,590	\$ 94,789	\$ 292,615	\$ (24,764)	-7.80%
Total Hickory Log Creek Expense	\$ 474,192	\$ 371,182	\$ 102,810	\$ 461,392	\$ (12,800)	-2.70%

Goals and Objectives – Hickory Log Creek Reservoir

#1

Strategic Initiative: Preparedness/Security**Objective:** Maintain continuity of service

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Time since last update to Hickory Log Creek Dam's Emergency Action Plan	1 per year	1	1	1	1
Time since last exercise of Hickory Log Creek Dam's Emergency Action Plan	≤ 3 years	2.5	0	1	2

Hickory Log Creek Dam is classified by Georgia Safe Dam's as a high hazard dam. It is 170 feet tall and almost 1,000 feet wide. It is located upstream of a business district in the city of Canton, GA and interstate I-575. It is critical that all applicable contact information for interested parties in the Emergency Action Plan is kept up to date; therefore, the plan should be updated on a yearly basis. In addition, in order to maintain coordination between multiple government agencies, including local emergency responders, a table top exercise of the plan should be conducted at least every three years.

#2

Strategic Initiative: Workforce Development**Objective:** Improve employee engagement

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Number of employees that are cross-trained in operating procedures to provide on-call support	≤ 3	1	1	1	4

A cross-training program will give staff an opportunity to train for positions outside their normal job duties and Division. Only two full-time employees work at Hickory Log Creek Dam, Reservoir, and Pumping Station. As a result, it is critical that staff members from other operating divisions be cross-trained in operations at Hickory Log Creek. Management has selected a benchmark of at least three employees in this program to provide an adequate pool of employees to call upon in the event of an emergency.

#3

Strategic Initiative: Infrastructure Sustainability**Objective:** Maintain a sustainable capital infrastructure program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Develop, coordinate, and implement a rolling 5-year capital improvement plan jointly adopted by CCMWA and the City of Canton	1 per year	1	1	1	1

Hickory Log Creek Reservoir is a joint government project between CCMWA and the City of Canton. Sustainability of the project is dependent upon cooperation between both owners. CCMWA's staff at Hickory Log Creek play a vital role in coordination and maintenance of positive relations with the City of Canton. CCMWA's Hickory Log Creek staff are charged with communicating project needs with both the parties while being attentive to the individual needs of both organizations.

#4

Strategic Initiative: Water Resources**Objective:** Ensure availability of resources from Allatoona Lake

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Ensure reservoir is at full capacity on June 1st	1,060 msl	1,060	1,060	1,060	1,060

Hickory Log Creek Reservoir has a permit allocated yield of 44 MGD. Full pool is elevation 1,060 feet above mean sea level (msl). At full pool, the reservoir has enough capacity for 44 MGD of yield for six months. CCMWA is allocated 33 MGD of said yield and the City of Canton is allocated 11 MGD. Water released from Hickory Log Creek Reservoir for CCMWA is used to supplement water withdrawals from Allatoona Lake. Therefore, releases from Hickory Log Creek Reservoir help to ensure availability of 72 MGD of withdrawal capacity from Allatoona Lake through the Wyckoff Water Treatment Plant Intake, even during times of drought. November through March is generally considered the rainy season in north Georgia, while June through October are generally drier months. The annual rainy season gives Hickory Log Creek Reservoir an opportunity to “refill” both from natural inflows and via pumping from the Etowah River before the hot and dry months of summer.

Wyckoff Division

The Wyckoff Water Treatment Plant is located in the northwestern portion of Cobb County near the City of Acworth. The treatment plant withdraws water from Allatoona Lake, treats the water to potable standards, and pumps the water into CCMWA's transmission system. Allatoona Lake is an impoundment of the Etowah River operated by the U.S. Army Corps of Engineers. The Division consists of one water treatment facility and one intake/pumping station. The Division has a total permitted capacity of 72 million gallons per day.

2018 Achievements

- Received the Large (> 50 MGD) Surface Water Plant of the Year Award from the Georgia section of the American Water Works Association.
- Received the Water Platinum Award from the Georgia Association of Water Professionals (GAWP) for at least five consecutive years of operations without a permit violation. 2018 marked 10 years of the Wyckoff Water Treatment Plant receiving this award.
- Bennett Vaughan, Class I Water Treatment Operator, received the GAWP Top Operator of the Year Award.



Wyckoff Operators receiving the Platinum Award



Wyckoff Management receiving Plant of the Year Award



GAWP Top Operator of the Year

Budget Highlights

- Decrease to Employee Benefits expense due to a reduction in the cost of health insurance premiums paid by CCMWA.
- Increased estimate for Water Purchases expense in anticipation of costs associated with the operation of the dam at Allatoona Lake that are passed on to CCMWA by the United States Army Corps of Engineers.

Wyckoff Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,372,808	\$ 1,273,820	\$ 98,987	\$ 1,399,081	\$ 26,273	1.91%
Overtime Wages	200,000	190,000	10,000	200,000	-	0.00%
Employee Benefits	300,000	270,057	29,943	244,053	(55,947)	-18.65%
FICA - Employer Share	97,514	87,287	10,227	99,144	1,630	1.67%
Medicare - Employer Share	22,806	20,003	2,803	23,187	381	1.67%
Travel Expense	7,500	5,681	1,819	7,500	-	0.00%
Dues and Fees	2,800	2,000	800	2,000	(800)	-28.57%
Education and Training	19,000	10,873	8,127	15,000	(4,000)	-21.05%
Uniforms	8,800	5,000	3,800	7,500	(1,300)	-14.77%
Total Personnel Costs	\$ 2,031,228	\$ 1,864,722	\$ 166,506	\$ 1,997,465	\$ (33,763)	-1.66%
Non-Personnel Costs						
Motor / Gear Inspection	\$ 99,000	\$ 85,000	\$ 14,000	\$ 100,000	\$ 1,000	1.01%
Land Application Soil Scientist	50,000	47,317	2,683	50,000	-	0.00%
General Maintenance & Repairs	350,000	350,000	-	375,000	25,000	7.14%
Electrical Maintenance & Repairs	60,000	55,000	5,000	60,000	-	0.00%
Coatings Maintenance & Repairs	127,000	43,868	83,132	220,000	93,000	73.23%
SCADA Maintenance & Repairs	125,000	100,000	25,000	125,000	-	0.00%
Security Maintenance & Repairs	18,000	18,000	-	16,000	(2,000)	-11.11%
Residuals Management	275,000	334,993	(59,993)	275,000	-	0.00%
Automotive Maintenance & Repairs	4,000	1,500	2,500	4,000	-	0.00%
Grounds Maintenance	80,000	80,000	-	60,000	(20,000)	-25.00%
Rental of Equipment & Vehicles	2,000	1,500	500	3,000	1,000	50.00%
Communications	60,000	48,450	11,550	50,000	(10,000)	-16.67%
Office Supplies	10,000	5,000	5,000	7,000	(3,000)	-30.00%
Water Treatment Chemicals	1,720,000	1,577,548	142,452	1,755,000	35,000	2.03%
Natural Gas	10,000	10,000	-	10,000	-	0.00%
Electricity	2,600,000	2,494,456	105,544	2,600,000	-	0.00%
Gasoline, Oil & Diesel Fuel	10,000	10,000	-	10,000	-	0.00%
Laboratory Supplies & Chemicals	32,000	25,000	7,000	32,000	-	0.00%
Backup / Emergency Electric Power	96,000	96,000	-	100,000	4,000	4.17%
Food	4,000	4,000	-	5,000	1,000	25.00%
Water Purchases	250,000	302,500	(52,500)	350,000	100,000	40.00%
Sewer / Wastewater Handling	80,000	32,069	47,931	35,000	(45,000)	-56.25%
Janitorial Supplies	12,000	8,000	4,000	10,000	(2,000)	-16.67%
Small Equipment	70,000	30,119	39,881	30,000	(40,000)	-57.14%
Safety Supplies & Equipment	19,000	19,000	-	19,000	-	0.00%
Total Non-Personnel Costs	\$6,163,000	\$5,779,320	\$383,680	\$ 6,301,000	\$ 138,000	2.24%
Total Wyckoff Division Expense	\$ 8,194,228	\$ 7,644,042	\$ 550,186	\$ 8,298,465	\$ 104,237	1.27%

Goals and Objectives – Wyckoff Division

#1

Strategic Initiative: Water Quality**Objective:** Meet or exceed regulatory requirements for water treatment

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Georgia - American Water Works Association Plant of the Year inspection score (* indicates winning year)	> 90	91.5	95.7	98.6*	95.0
Number of years of total compliance with all water qualify, monitoring, and reporting requirements (GAWP Platinum Award)	> 5 years	8	9	10	11

Each year, both of CCMWA's water treatment plants are inspected by a GAWWA committee in the Surface Water Plants >50 MGD category of the Plant of the Year award program. The highest scoring plant in each category is named Plant of the Year in their category.

The Georgia Association of Water Professionals Platinum Award is given to water treatment plants after they achieve five years of full compliance with all water qualify, monitoring, and reporting requirements; then, it is awarded annually for each year that full compliance is maintained.

#2

Strategic Initiative: Water Resources**Objective:** Ensure availability of resources from Allatoona Lake

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of year in compliance with water production permits	100%	100%	100%	100%	100%

The Wyckoff Water Treatment Plant has a permitted capacity of 72 million gallons per day. Through proper plant operation and balancing of water demands with the Quarles Water Treatment Plant, Wyckoff can deliver the necessary amount of water without exceeding the permitted production capacity.

#3

Strategic Initiative: Workforce Development**Objective:** Develop a highly competent, committed & supported workforce

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of plant operations staff with Class I Water Treatment Operator license	> 50%	66.7%	66.7%	53.8%	> 50%

An employee must have three years of job experience as a water treatment operator, pass a written exam, and obtain 24 points of continuing education every two years to maintain a Class I Water Treatment Operator license. By ensuring that at least 50% of operations staff have this license, CCMWA can ensure a well-trained capable workforce that exceeds regulatory requirements.

Quarles Division

The Quarles Water Treatment Plant is located in eastern Cobb County. The treatment plant withdraws water from the Chattahoochee River, treats the water to potable standards, and pumps the water into CCMWA's transmission system. The Division consists of two water treatment facilities and two intakes/pumping stations. The Division has a total permitted capacity of 86 million gallons per day. CCMWA's original water treatment plant, known as Quarles Water Treatment Plant 1, is currently being replaced with a new plant as part of the Capital Improvement Plan. The new plant is being constructed on the footprint of the old building with a phased demolition of the original plant.

Budget Highlights

- Increase to Salaries & Wages expense to allow for merit increases.
- Decrease to Employee Benefits expense due to a reduction in the cost of health insurance premiums paid by CCMWA.
- Decrease to various expense line items based on historical spending.

Digital rendering of
the new Quarles
Water Treatment
Plant 1



Quarles Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,476,923	\$ 1,438,766	\$ 38,157	\$ 1,551,408	\$ 74,485	5.04%
Overtime Wages	270,000	243,150	26,850	279,000	9,000	3.33%
Employee Benefits	392,000	389,367	2,633	376,491	(15,509)	-3.96%
FICA - Employer Share	108,309	100,863	7,446	113,486	5,177	4.78%
Medicare - Employer Share	25,331	23,590	1,741	26,541	1,210	4.78%
Travel Expense	6,550	4,479	2,071	6,500	(50)	-0.76%
Dues and Fees	5,265	1,020	4,245	3,000	(2,265)	-43.02%
Education and Training	17,350	7,047	10,303	15,000	(2,350)	-13.54%
Uniforms	8,800	5,000	3,800	7,500	(1,300)	-14.77%
Total Personnel Costs	\$ 2,310,528	\$ 2,213,282	\$ 97,246	\$ 2,378,926	\$ 68,397	2.96%
Non-Personnel Costs						
Motor / Gear Inspection	\$ 75,000	\$ 75,000	\$ -	\$ 75,000	\$ -	0.00%
Land Application Soil Scientist	55,000	47,317	7,683	50,000	(5,000)	-9.09%
Cleaning Services	50,000	38,496	11,504	40,000	(10,000)	-20.00%
General Maintenance & Repairs	350,000	350,000	-	350,000	-	0.00%
Electrical Maintenance & Repairs	50,000	50,000	-	75,000	25,000	50.00%
Coatings Maintenance & Repairs	100,000	13,727	86,273	100,000	-	0.00%
SCADA Maintenance & Repairs	125,000	100,000	25,000	150,000	25,000	20.00%
Security Maintenance & Repairs	16,000	5,000	11,000	18,000	2,000	12.50%
Residuals Management	300,000	257,997	42,003	275,000	(25,000)	-8.33%
Automotive Maintenance & Repairs	3,000	3,000	-	5,000	2,000	66.67%
Grounds Maintenance	85,000	57,376	27,624	60,000	(25,000)	-29.41%
Rental of Equipment & Vehicles	5,000	1,500	3,500	4,000	(1,000)	-20.00%
Communications	70,000	53,544	16,456	52,000	(18,000)	-25.71%
Office Supplies	8,800	5,911	2,889	8,000	(800)	-9.09%
Water Treatment Chemicals	780,000	780,000	-	803,400	23,400	3.00%
Natural Gas	50,000	34,326	15,674	38,000	(12,000)	-24.00%
Electricity	3,000,000	2,817,527	182,473	3,000,000	-	0.00%
Gasoline, Oil & Diesel Fuel	15,000	5,896	9,104	8,000	(7,000)	-46.67%
Laboratory Supplies & Chemicals	40,000	35,000	5,000	40,000	-	0.00%
Backup / Emergency Electric Power	25,000	12,000	13,000	20,000	(5,000)	-20.00%
Food	3,000	3,500	(500)	5,000	2,000	66.67%
Water Purchases	11,000	-	11,000	-	(11,000)	-100.00%
Sewer / Wastewater Handling	80,000	80,928	(928)	87,000	7,000	8.75%
Janitorial Supplies	6,000	2,000	4,000	4,000	(2,000)	-33.33%
Small Equipment	70,000	18,493	51,507	30,000	(40,000)	-57.14%
Safety Supplies & Equipment	19,000	15,000	4,000	19,000	-	0.00%
Total Non-Personnel Costs	\$ 5,391,800	\$ 4,863,538	\$ 528,262	\$ 5,316,400	\$ (75,400)	-1.40%
Total Quarles Division Expense	\$ 7,702,328	\$ 7,076,820	\$ 625,508	\$ 7,695,326	\$ (7,003)	-0.09%

Goals and Objectives – Quarles Division

#1

Strategic Initiative: Water Quality

Objective: Meet or exceed regulatory requirements for water treatment

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Georgia - American Water Works Association Plant of the Year inspection score (* indicates winning year)	> 90	92.8	97.1	97.3	95.0
Number of years of total compliance with all water qualify, monitoring, and reporting requirements (GAWP Platinum Award)	> 5 years	8	9	10	11

Each year, both of CCMWA’s water treatment plants are inspected by a GAWWA committee in the Surface Water Plants >50 MGD category of the Plant of the Year award program. The highest scoring plant in each category is named Plant of the Year in their category.

The Georgia Association of Water Professionals Platinum Award is given to water treatment plants after they achieve five years of full compliance with all water qualify, monitoring, and reporting requirements; then, awarded annually for each year that full compliance is maintained.

#2

Strategic Initiative: Water Resources

Objective: Ensure availability of resources from the Chattahoochee River

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of year in compliance with water production permits	100%	100%	100%	100%	100%

The Quarles Water Treatment Plant has a permitted capacity of 86 million gallons per day. Through proper plant operation and balancing of water demands with the Wyckoff Water Treatment Plant, Quarles can deliver the necessary amount of water without exceeding the permitted production capacity.

#3

Strategic Initiative: Workforce Development

Objective: Develop a highly competent, committed & supported workforce

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of plant operations staff with Class I Water Treatment Operator license	> 50%	80.0%	80.0%	78.6%	> 50%

An employee must have three years of job experience as a water treatment operator, pass a written exam, and obtain 24 points of continuing education every two years to maintain a Class I Water Treatment Operator license. By ensuring that at least 50% of operations staff have this license, CCMWA can ensure a well-trained capable workforce that exceeds regulatory requirements.

Maintenance Division

The Maintenance Division is responsible for maintaining the buildings and equipment at both of CCMWA's water treatment plants. The Division includes specialized maintenance technicians, industrial electricians, and instrumentation/controls technicians, analysts, and programmers. Maintenance staff work closely with plant operations staff and the Engineering Division to schedule, perform, and track preventative maintenance and work order requests for equipment repairs. The Division also maintains information related to CCMWA's assets in a computerized asset management system that is used for analyzing future capital needs.

Budget Highlights

- Increase to Salaries & Wages, FICA, and Medicare expense due to position that was unfunded in 2018 being funded and filled in 2019.
- Decrease to Employee Benefits expense due to a reduction in the cost of health insurance premiums paid by CCMWA.
- Changes to various expense line items based on historical spending. The Maintenance Division was created in mid-2017 and 2018 was the first full budget year for this division.

Maintenance Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,908,541	\$ 1,858,148	\$ 50,393	\$ 1,958,079	\$ 49,538	2.60%
Overtime Wages	36,000	36,000	-	36,000	-	0.00%
Employee Benefits	450,000	433,859	16,141	431,696	(18,304)	-4.07%
FICA - Employer Share	120,562	109,751	10,810	123,633	3,071	2.55%
Medicare - Employer Share	28,196	25,668	2,528	28,915	719	2.55%
Travel Expense	12,300	6,965	5,335	13,600	1,300	10.57%
Dues and Fees	5,500	2,500	3,000	5,500	-	0.00%
Education and Training	31,000	23,947	7,053	32,200	1,200	3.87%
Uniforms	16,900	10,035	6,865	10,500	(6,400)	-37.87%
Total Personnel Costs	\$ 2,608,998	\$ 2,506,874	\$ 102,124	\$ 2,640,123	\$ 31,124	1.19%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 21,400	\$ 21,400	\$ -	\$ 26,400	\$ 5,000	23.36%
Rental of Equipment and Vehicles	19,600	6,632	12,968	15,000	(4,600)	-23.47%
Communications	27,940	23,973	3,967	48,000	20,060	71.80%
Office Supplies	4,000	4,468	(468)	10,600	6,600	165.00%
Gas, Oil & Diesel	19,200	23,386	(4,186)	23,000	3,800	19.79%
Food	5,200	4,131	1,069	7,100	1,900	36.54%
Small Equipment	129,000	108,257	20,743	90,000	(39,000)	-30.23%
Safety Supplies & Equipment	20,500	22,404	(1,904)	42,400	21,900	106.83%
Total Non-Personnel Costs	\$ 246,840	\$ 214,651	\$ 32,189	\$ 262,500	\$ 15,660	6.34%
Total Maintenance Division Expense	\$ 2,855,838	\$ 2,721,525	\$ 134,314	\$ 2,902,623	\$ 46,784	1.64%

Goals and Objectives – Maintenance Division

#1

Strategic Initiative: Infrastructure Sustainability

Objective: React quickly when an unforeseeable event occurs

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
High priority work order request time to completion	< 1 day	N/A	N/A	< 1	< 1

Work orders are requested by various divisions for maintenance needs and are assigned a priority where the highest priority would be considered an urgent need. These high priority work orders must be addressed in a timely manner to ensure continuity of operations. The ability of the Maintenance Division to quickly and proficiently complete high priority work orders is essential as CCMWA’s drinking water treatment plants need to be in operation 24/7 to ensure adequate supply for drinking water to over 900,000 people in Metro Atlanta.

#2

Strategic Initiative: Infrastructure Sustainability

Objective: Implement a condition-based O&M program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Preventative/Predictive maintenance work orders vs. corrective work orders	> 80%	N/A	N/A	74%	> 80%

For CCMWA to fully utilize the life of its capital assets, we must perform preventative maintenance on all equipment to keep it running effectively and efficiently. Tracking preventative/predictive maintenance work orders as compared to corrective work orders gives an indication on the effectiveness of our preventative/predictive maintenance efforts. It is much easier to plan work and much cheaper to conduct work when it is not corrective. We believe that having an effective maintenance program will extend the life of our assets and increase uptime of the system. Continuity of operations is essential to our water treatment plants because drinking water is needed by those we serve every day.

#3

Strategic Initiative: Infrastructure Sustainability

Objective: Maintain a sustainable capital infrastructure program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
% of assigned AR&R projects assigned to the Maintenance Division that are completed on time	≥ 80%	N/A	N/A	75%	≥ 80%
% of assigned AR&R projects assigned to the Maintenance Division that are completed within the budgetary constraints	≥ 80%	N/A	N/A	100%	≥ 80%

CCMWA, like many other utilities, has historically struggled to complete capital improvement projects in a timely manner. In July 2017, CCMWA created a centralized Maintenance Division to ensure more effective delivery of maintenance and timely completion of small scale capital infrastructure projects (AR&R) across the Authority. In accordance with the American Water Works Association’s benchmarking information, management has set an internal benchmark for timely completion of AR&R projects. Management has also set an internal benchmark for AR&R projects completed within budgetary constraints, based up on past experience and a desire to enhance the budgeting process.

Laboratory Division

The Laboratory Division is responsible for water quality monitoring across CCMWA's transmission system. The Division is also accountable for bacteriological sampling and testing and water sampling and testing for CCMWA's sole-source customers. The Laboratory Division has historically operated out of two locations, the Calvin A. Simmons Microbiology Laboratory in Acworth, GA and the Chemical Laboratory located at the Quarles Water Treatment Plant. The two locations will be consolidated into the Simmons Microbiology Laboratory through a building expansion in the next two years in order to streamline processes and facilitate cross-training.

Budget Highlights

- Decrease to Wages & Salaries and Employee Benefits expense due to a retirement that occurred at the end of 2017 and the vacant position filled at a lower salary.

Laboratory Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 584,048	\$ 513,003	\$ 71,046	\$ 581,270	\$ (2,778)	-0.48%
Overtime Wages	10,000	9,811	189	10,000	-	0.00%
Employee Benefits	125,000	112,827	12,173	118,254	(6,746)	-5.40%
FICA - Employer Share	36,831	30,264	6,567	36,659	(172)	-0.47%
Medicare - Employer Share	8,614	7,072	1,542	8,574	(40)	-0.46%
Travel Expense	7,300	2,234	5,066	6,782	(518)	-7.10%
Dues and Fees	1,000	800	200	1,000	-	0.00%
Education and Training	6,200	5,152	1,048	7,200	1,000	16.13%
Uniforms	3,000	3,000	-	2,500	(500)	-16.67%
Total Personnel Costs	\$ 781,993	\$ 684,162	\$ 97,831	\$ 772,239	\$ (9,753)	-1.25%
Non-Personnel Costs						
EPD Compliance Sampling	\$ 39,000	\$ 39,000	\$ -	\$ 40,000	\$ 1,000	2.56%
Cleaning Services	9,000	8,328	672	9,000	-	0.00%
General Maintenance & Repairs	40,300	42,000	(1,700)	47,000	6,700	16.63%
SCADA Maintenance & Repairs	2,600	2,600	-	3,000	400	15.38%
Security Maintenance & Repairs	6,030	6,030	-	5,000	(1,030)	-17.08%
Automotive Maintenance & Repairs	5,500	6,202	(702)	3,000	(2,500)	-45.45%
Grounds Maintenance	11,900	11,900	-	12,000	100	0.84%
Rental Equipment and Vehicles	2,700	1,000	1,700	2,000	(700)	-25.93%
Communications	21,000	16,707	4,293	19,000	(2,000)	-9.52%
Office Supplies	5,500	5,500	-	5,500	-	0.00%
Natural Gas	1,150	1,150	-	1,300	150	13.04%
Electricity	26,070	18,948	7,122	22,000	(4,070)	-15.61%
Gas, Oil & Diesel	8,200	7,196	1,004	7,000	(1,200)	-14.63%
Laboratory Supplies	142,000	142,000	-	143,000	1,000	0.70%
Food	1,900	2,000	(100)	2,200	300	15.79%
Janitorial Supplies	1,300	1,000	300	1,350	50	3.85%
Small Equipment	6,500	3,651	2,849	6,500	-	0.00%
Safety Supplies & Equipment	2,500	2,000	500	2,500	-	0.00%
Total Non-Personnel Costs	\$ 333,150	\$ 317,211	\$ 15,939	\$ 331,350	\$ (1,800)	-0.54%
Total Laboratory Division Expense	\$ 1,115,143	\$ 1,001,373	\$ 113,769	\$ 1,103,589	\$ (11,553)	-1.04%

Goals and Objectives – Laboratory Division

- #1**
Strategic Initiative: Water Quality
Objective: Exceed laboratory quality assurance/quality control for drinking water analysis

KPI Metric	Benchmark	2013	2014	2018	Goal 2019
GAWP Laboratory Quality Assurance Award Score (* indicates winning year)	> 90%	97.6	99.4*	98.7	> 95%

Each year the Georgia Association of Water Professionals holds inspections for a competitive award for Laboratory Quality Assurance in various laboratory size categories. The lab with the highest score in each category receives the award and is not eligible to enter the competition in the following year. The CCMWA Laboratory won their category of the award in 2014, was not eligible in 2015, and chose not to enter the competition in 2016 and 2017 due to personnel changes related to retirements.

- #2**
Strategic Initiative: Water Quality
Objective: Provide valid TOC data to Operations to make treatment decisions

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Relative percent difference between CCMWA TOC samples to EPD results	< 20% diff. ±	N/A	N/A	14.3%	≤ 15%

Each month the CCMWA Laboratory collects Total Organic Compound (TOC) samples in duplicate with State compliance samples. By comparing CCMWA's analysis of these samples to samples analyzed by the Environmental Protection Division, we can assess how well the lab is maintaining analysis precision. The benchmark is to have all CCMWA results less than 20% different from the EPD results.

- #3**
Strategic Initiative: Water Quality
Objective: Provide Trihalomethane data to Operations to make treatment decisions

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent difference between CCMWA trihalomethane samples results to EPD Laboratory results	< 20% diff. ±	N/A	N/A	18.1%	≤ 15%

Each quarter the CCMWA Laboratory collects trihalomethane samples in duplicate with State Compliance Stage 2 disinfection byproducts samples. By comparing CCMWA's analysis of these samples to samples analyzed by the Environmental Protection Division, we can assess how well the lab is maintaining analysis precision. The benchmark is to have all CCMWA results less than 20% different from the EPD results.

Transmission Division

The Transmission Division is responsible for maintaining CCMWA's transmission pipeline system and storage tanks. The Division's primary functions include: monthly meter reading, providing utility locates of CCMWA's water mains, overseeing the Valve Maintenance Program, and coordination of repair and maintenance of the transmission system. The Division also works closely with the Engineering Division to maintain the GIS database and provide updates on buried infrastructure.

2018 Achievements

- Received the Georgia Association of Water Professionals (GAWP) Gold Award for scoring 95% or higher on its water system annual review in 2018.



Transmission Division accepting the Gold Award

Budget Highlights

- Decrease to Employee Benefits expense due to a reduction in the cost of health insurance premiums paid by CCMWA and changes in employee benefit elections.
- Decrease to Repair & Maintenance expense accounts to better reflect historical trends and recognize that pipeline repairs over \$10,000 will be capitalized instead of expensed.

Transmission Division	2018 Budget	2018 Projected Actual	Variance Favorable (Unfavorable)	2019 Budget	Increase (Decrease) Over 2018 Budget (\$)	Increase (Decrease) Over 2018 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 685,137	\$ 633,318	\$ 51,819	\$ 678,342	\$ (6,795)	-0.99%
Overtime Wages	25,000	25,000	-	28,000	3,000	12.00%
Employee Benefits	150,000	91,911	58,089	89,378	(60,622)	-40.41%
FICA - Employer Share	44,028	39,078	4,951	43,794	(234)	-0.53%
Medicare - Employer Share	10,297	9,134	1,163	10,242	(55)	-0.53%
Travel Expense	8,000	3,021	4,979	8,000	-	0.00%
Dues and Fees	1,000	1,000	-	1,000	-	0.00%
Education and Training	20,000	7,742	12,258	20,000	-	0.00%
Uniforms	6,000	3,000	3,000	6,000	-	0.00%
Total Personnel Costs	\$ 949,462	\$ 813,204	\$ 136,259	\$ 884,756	\$ (64,707)	-6.82%
Non-Personnel Costs						
Security Maintenance & Repairs	\$ 4,000	\$ 565	\$ 3,435	\$ 4,000	\$ -	0.00%
Pipeline Maintenance & Repairs	462,000	462,000	-	412,000	(50,000)	-10.82%
Tanks Maintenance & Repairs	88,000	47,463	40,537	65,000	(23,000)	-26.14%
Meters Maintenance & Repairs	47,450	47,450	-	48,000	550	1.16%
Emergency Pipeline Repairs	70,000	10,556	59,444	50,000	(20,000)	-28.57%
DOT Pipeline Modifications	130,000	26,532	103,468	75,000	(55,000)	-42.31%
Automotive Maintenance & Repairs	20,000	15,000	5,000	20,000	-	0.00%
Right of Way & Tank Grounds Maintenance	410,000	656,544	(246,544)	500,000	90,000	21.95%
Rental Equipment and Vehicles	2,500	-	2,500	2,500	-	0.00%
Communications	26,000	20,243	5,757	21,800	(4,200)	-16.15%
Office Supplies	2,000	2,000	-	2,000	-	0.00%
Gas, Oil & Diesel	30,000	21,828	8,172	25,000	(5,000)	-16.67%
Food	3,000	1,500	1,500	3,000	-	0.00%
Small Equipment	20,000	2,000	18,000	20,000	-	0.00%
Safety Supplies & Equipment	15,000	10,566	4,434	15,000	-	0.00%
Total Non-Personnel Costs	\$ 1,329,950	\$ 1,324,248	\$ 5,702	\$ 1,263,300	\$ (66,650)	-5.01%
Total Transmission Division Expense	\$ 2,279,412	\$ 2,137,452	\$ 141,961	\$ 2,148,056	\$ (131,357)	-5.76%

Goals and Objectives – Transmission Division

#1
Strategic Initiative: Water Quality
Objective: Meet or exceed regulatory requirements

KPI Metric	Benchmark	2013	2014	2018	Goal 2019
GAWP Water Distribution System annual review score	> 95%	N/A	N/A	99.9%	≥ 95%

Each year the Georgia Association of Water Professionals holds inspections of water distribution systems and systems scoring over 95% on the review are presented with the GAWP Water Distribution System Gold Award. The water distribution program focuses on the maintenance of water lines that deliver potable water to customers. The CCMWA Transmission Division submitted our system for review for the first time 2018 and received the Gold Award. CCMWA plans to continue efforts to be eligible for this award in future years.

#2
Strategic Initiative: Information Management
Objective: Reach full water system GIS mapping

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Number of locate points mapped into GIS system during the year	100	64	46	100	100

The GIS system is administered through the Engineering Division, but the system relies on input from the Transmission Division to ensure that all locate markers for water lines are recorded accurately. CCMWA's current goal is to have markers every 50-100 feet within our water system.

#3
Strategic Initiative: Infrastructure Sustainability
Objective: Proactively replace meters as they approach the end of their useful lives

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Number of meters changed out per year	≥ 5	3	3	5	4

CCMWA has approximately 100 meters in service throughout its transmission system. The typical lifespan of a meter is 20 years; therefore, CCMWA has implemented a meter replacement program in which approximately 5% of all transmission system meters are replaced on a yearly basis. Since CCMWA's transmission system meters are the "cash registers" of the organization it is essential that CCMWA's water meters be maintained.

#4
Strategic Initiative: Infrastructure Sustainability
Objective: Implement a condition-based O&M program

KPI Metric	Benchmark	2016	2017	2018	Goal 2019
Percent of transmission system valves exercised/evaluated on a yearly basis	≥ 33%	N/A	N/A	57%	> 33%

CCMWA has implemented a valve maintenance program and dedicated both staff and equipment to the program efforts. As valves are found in need of repair, work orders are issued, and the valve is repaired or replaced. It is essential that CCMWA's transmission system valves be in working order and that staff knows where valves are located. Through experience and input from peer utilities, CCMWA has found that a three-year cycle for valve maintenance is both attainable and effective.

CAPITAL BUDGET

Cobb County-Marietta Water Authority's capital budget is based on a 5-year Capital Improvement Plan, which includes projects planned to be started or completed between 2019 and 2023. This portion of the annual budget includes all capital expenditures planned during the year. A [capital expenditure](#) is the use of funds to acquire or maintain long-term assets that are used in the operation of the organization over a multi-year period. The presented 5-year plan does not include any capital expenditures after 2023, nor any costs incurred before 2019. All projects listed in CCMWA's capital budget will be financed with designated reserves and net income.

The projects defined in the 2019-2023 Capital Improvement Plan are classified into one of five categories:

- **Aged Pipe Replacements** - Projects in this category were identified by the Aged Pipe Replacement study and represent a portion of the projects designated as Aged Pipe Replacement projects for future planning periods.
- **CIP Projects** - Projects categorized as Construction in Progress (CIP) Projects are large, multi-year projects that are focused on addressing system performance and potential expansion.
- **Plant Improvements** - Projects in this category are focused on the replacement, renovation, or addition of infrastructure within CCMWA's water treatment plants.
- **Water Storage Tank Improvements** - Projects in this category are focused on the addition or replacement of water storage tanks within the transmission system.
- **Other Capital Projects** - Projects in this category include routine capital projects, referred to as Asset Renewal & Replacement (AR&R) projects, which involve the rehabilitation or renovation of capital equipment and buildings. This category also includes capital expenditures outside of CCMWA's planning ability, including possible land purchases at reservoir sites and pipeline relocation projects requested by the Department of Transportation.

5-Year Capital Improvement Plan

Cobb County-Marietta Water Authority 5-Year Capital Improvement Plan

Project Description	Estimated Project Timeline	Prior Year(s) Investments	2019 Budgeted Cost	2020 Estimated Cost	2021 Estimated Cost	2022 Estimated Cost	2023 Estimated Cost	Estimated 5-Year Cost
Aged Pipe Replacements								
Wyckoff 42" Finished Water Main	2017-2020	\$ 338,582	\$ 7,300,000	\$ 400,000	\$ -	\$ -	\$ -	\$ 7,700,000
Mableton Parkway 36" Water Main	2017-2019	4,002,819	1,200,000	-	-	-	-	1,200,000
U.S Highway 41 Parallel 20" Water Main	2017-2020	247,000	3,200,000	5,304,000	-	-	-	8,504,000
West Side Loop Section #2, 36" Water Main	2018-2021	308,688	7,000,000	12,480,000	6,489,600	-	-	25,969,600
Blackjack Tank Supply 36" Water Line	2019-2023	-	884,000	7,280,000	16,224,000	11,248,640	5,849,293	41,485,933
Factory Shoals 30" & Six Flags 24" Water Mains	2021-2023	-	-	-	459,680	6,714,623	3,270,544	10,444,847
Trickum Road 20" Water Main	2022-2023	-	-	-	-	337,459	4,481,787	4,819,246
Mars Hill to Pine Mountain 36" Water Main	2022-2025	-	-	-	-	528,686	12,113,550	12,642,236
Pine Mountain to Barrett Pkwy 42"/30" Water Main	2023-2026	-	-	-	-	-	573,231	573,231
CIP Projects								
Wyckoff 42" Raw Water Pipeline Improvements	2020-2022	-	-	445,120	10,293,587	4,577,072	-	15,315,779
Plant Improvements								
Quarles Water Treatment Plant 1 Replacement	2014-2021	30,702,110	31,000,000	17,000,000	2,000,000	-	-	50,000,000
Quarles Plant 2 SCADA Replacement	2018-2022	25,000	400,000	1,040,000	1,081,600	1,124,864	-	3,646,464
Quarles Power Voltage Regulation	2021-2022	-	-	-	108,160	977,507	-	1,085,667
Quarles Taste & Odor Process Improvements	2019-2021	-	285,000	2,667,600	2,163,200	-	-	5,115,800
Quarles Main Switchgear Replacement	2022-2024	-	-	-	-	292,465	1,368,735	1,661,200
Quarles Chemical Building Replacement	2023-2025	-	-	-	-	-	584,929	584,929
Quarles Reservoir Cleaning	2022	-	-	-	-	1,237,350	-	1,237,350
Quarles Chlorine Feed System	2023-2025	-	-	-	-	-	584,929	584,929
Wyckoff 6MG Clearwell Addition	2019-2021	-	2,100,000	6,240,000	6,489,600	-	-	14,829,600
Wyckoff Maintenance Building Renovation	2019-2021	-	50,000	468,000	540,800	-	-	1,058,800
Wyckoff Power Voltage Regulation	2021-2022	-	-	-	108,160	977,507	-	1,085,667
Wyckoff Thickener Refurbishment and Addition	2021-2023	-	-	-	313,664	1,467,948	1,526,665	3,308,277
Water Storage Tank Improvements								
Pete Shaw Tank No. 2 (5 MG)	2018-2020	97,212	3,000,000	312,000	-	-	-	3,312,000
Other Capital Projects								
Hickory Log Creek & Sharp Mtn. Creek Reservoirs			Contingency	Contingency	Contingency	Contingency	Contingency	Contingency
Reservation for Department of Transportation Projects			1,000,000	1,040,000	1,081,600	1,687,296	1,754,788	6,563,684
Asset Renewal & Replacement Projects (Routine)			9,952,348	7,280,000	7,571,200	7,874,048	8,189,010	40,866,606
General Contingency			2,500,000	3,120,000	3,244,800	3,374,592	3,509,576	15,748,968
Totals			69,871,348	65,076,720	58,169,651	42,420,057	43,807,037	279,344,813

Note:

Projects in **green font** will be under design as of December 31, 2018.

Projects in **purple font** will be under construction as of December 31, 2018.

Projects in **blue font** are ongoing land purchases made when land is available or as condemnations are resolved.

All other projects had not started as of December 31, 2018.

Capital Project Descriptions



Wyckoff 42" Finished Water Main Replacement

This project will replace 5,200 feet of 42" and 30" pre-stressed concrete cylinder pipe (installed in 1964) with new 42" zinc-coated ductile iron pipe. This project will extend from the Wyckoff plant to Mars Hill Church Road. Replacing this section of water main will improve reliability of the supply from the plant and will simplify the connections near the intersection of Mars Hill Road and U.S. Highway 41. The intent of this project is to eliminate critical, vulnerable infrastructure that has been prone to leaks in a main intersection of U.S. Highway 41.

Classification	Prior Year(s) Actual Spending	2018 Actual Spending (estimated)	2019 Estimated Spending	2020 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	88,852	110,421	14,518	-	213,791
Construction Engineering	-	-	104,578	34,860	139,438
Construction	-	-	6,955,672	365,140	7,320,812
Other Professional Services	-	2,768	111,773	-	114,541
Land & Easements	-	136,541	113,459	-	250,000
Totals	\$ 88,852	\$ 249,730	\$ 7,300,000	\$ 400,000	\$ 8,038,582

Project Justification and Operating Impact

This project was identified as one of the highest priority replacement water mains in the Aged Pipe Replacement (APR) Program study. By proactively replacing aged pipe, the Authority mitigates the risk of catastrophic failure and costly repair.

Electricity costs associated with pumping is expected to decrease, as the new pipeline will have improved hydraulic capabilities. Operational costs associated with emergency pipeline repairs are also expected to decrease as the average age of the transmission system decreases. Operational costs associated with these types of repairs are classified in the Transmission Division operating budget, while repairs over \$10,000 are capitalized as part of the annual AR&R budget.

Project Details

Project Manager:	Jacob Wilson		
Project Start Date:	Fiscal Year 2017	Engineering Contract:	\$353,228
Scheduled Completion Date:	Fiscal Year 2020	Construction Contract:	\$7,320,812

Mableton Parkway 36" Water Main Replacement

This project will replace 5,600 feet of 36" pre-stressed concrete cylinder pipe (installed in 1969) with new 36" zinc-coated ductile iron pipe. This project will extend from Dodgen Road to Orchard Lane along Mableton Parkway. The segment of pipe being replaced is the last section of pre-stressed concrete cylinder pipe along Mableton Parkway. In 2016, segments of this water main failed and the deteriorated segments were replaced during an emergency repair. The intent of this project is to replace the remaining segment that is at risk of failure due to its age.

Classification	Prior Year(s) Actual Spending	2018 Actual Spending (estimated)	2019 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	76,245	86,371	-	162,616
Construction Engineering	-	79,036	26,345	105,381
Construction	-	3,661,167	1,073,655	4,734,822
Other Professional Services	5,003	94,997	100,000	200,000
Land & Easements	-	-	-	-
Totals	\$ 81,248	\$ 3,921,571	\$ 1,200,000	\$ 5,202,819

Project Justification and Operating Impact

This project was identified as one of the highest priority replacement water mains in the Aged Pipe Replacement (APR) Program study. By proactively replacing aged pipe, the Authority mitigates the risk of catastrophic failure and costly repair.

Electricity costs associated with pumping is expected to decrease, as the new pipeline will have improved hydraulic capabilities. Operational costs associated with emergency pipeline repairs are also expected to decrease as the average age of the transmission system decreases. Operational costs associated with these types of repairs are classified in the Transmission Division operating budget, while repairs over \$10,000 are capitalized as part of the annual AR&R budget.

Project Details

Project Manager:	Chris Dillard		
Project Start Date:	Fiscal Year 2017	Engineering Contract:	\$267,997
Scheduled Completion Date:	Fiscal Year 2019	Construction Contract:	\$4,734,822

U.S. Highway 41 Parallel 20" Water Main Replacement

This project will install 12,000 feet of 20" zinc-coated ductile iron pipe parallel to the existing 24" pre-stressed concrete cylinder pipe, which was installed in 1977 and crosses under Allatoona Lake. This project will extend from Mars Hill Church Road to State Route 92 along U.S. Highway 41. Installing this section of water main will improve reliability of the supply to the northwest section of Cobb County near Allatoona Lake, which includes the WellStar Acworth Health Park, Allatoona High School, and significant commercial and residential development. A failure of the existing water main, especially under Allatoona Lake, could result in customers being without water for several days. The North West Land Vulnerability Study, prepared by Cobb County in 2014, identified the need for additional redundancy to meet demand in this area in the event of a major water main break. The intent of this project is to provide redundancy for the existing, vulnerable infrastructure which would be difficult to repair due to its location.

Classification	Prior Year(s) Actual Spending	2018 Actual Spending (estimated)	2019 Estimated Spending	2020 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	221,560	63,990	-	285,550
Construction Engineering	-	-	46,280	138,842	185,122
Construction	-	-	3,040,170	5,165,158	8,205,328
Other Professional Services	40	400	24,560	-	25,000
Land & Easements	-	25,000	25,000	-	50,000
Totals	\$ 40	\$246,960	\$ 3,200,000	\$5,304,000	\$8,751,000

Project Justification and Operating Impact

This project was identified as one of the highest priority replacement water mains in the Aged Pipe Replacement (APR) Program study. By proactively replacing aged pipe, the Authority mitigates the risk of catastrophic failure and costly repair.

Operational costs associated with emergency pipeline repairs are expected to decrease as the average age of the transmission system decreases. Operational costs associated with these types of repairs are classified in the Transmission Division operating budget, while repairs over \$10,000 are capitalized as part of the annual AR&R budget.

Project Details

Project Manager:	Jacob Wilson	Engineering Contract:	\$470,672
Project Start Date:	Fiscal Year 2017	Construction Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2020		

West Side Loop, Section #2, 36" Water Main Replacement

This project will replace 20,500 feet of 36" pre-stressed concrete cylinder pipe (installed in 1967) with new 36" zinc-coated ductile iron pipe and 1,000 feet of 20" pre-stressed concrete cylinder pipe with new 30" zinc-coated ductile iron pipe. This project will extend from Old Alabama Road to Mableton Parkway along Cardell Road/South Gordon Road and partially down Factory Shoals Road. Replacing this section of water main will improve reliability of the supply from the plant and will simplify the connections near the intersection of Mars Hill Road and Highway 41. The intent of this project is to eliminate critical, vulnerable infrastructure that is prone to leaks, with the last failure in 2016 that required emergency repairs.

Classification	2018 Actual Spending (estimated)	2019 Estimated Spending	2020 Estimated Spending	2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	307,688	287,958	-	-	595,646
Construction Engineering	-	88,722	177,444	88,721	354,887
Construction	-	6,399,320	12,077,556	6,400,879	24,877,755
Other Professional Services	1,000	149,000	150,000	-	300,000
Land & Easements	-	75,000	75,000	-	150,000
Totals	\$ 308,688	\$ 7,000,000	\$ 12,480,000	\$ 6,489,600	\$ 26,278,288

Project Justification and Operating Impact

This project was identified as one of the highest priority replacement water mains in the Aged Pipe Replacement (APR) Program study. By proactively replacing aged pipe, the Authority mitigates the risk of catastrophic failure and costly repair.

Electricity costs associated with pumping is expected to decrease, as the new pipeline will have improved hydraulic capabilities. Operational costs associated with emergency pipeline repairs are also expected to decrease as the average age of the transmission system decreases. Operational costs associated with these types of repairs are classified in the Transmission Division operating budget, while repairs over \$10,000 are capitalized as part of the annual AR&R budget.

Project Details

Project Manager:	Chris Dillard		
Project Start Date:	Fiscal Year 2018	Engineering Contract:	\$950,533
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	TBD

Blackjack Tank Supply 36" Water Line Replacement

This project will replace 32,000 feet of 30" pre-stressed concrete cylinder pipe with new 30"/36" zinc-coated ductile iron pipe. The water line being replaced was installed in the early 1950's as the first water supply line for the City of Marietta. This project will extend from the Quarles Water Treatment Plant on Lower Roswell Road to the Blackjack Mountain storage tank and from the Blackjack Mountain storage tank to U.S. Highway 41. Most of the original pipeline lies within a 60-foot wide permanent easement through several residential neighborhoods, including the Indian Hills Country Club. The intent of this project is to eliminate critical, vulnerable infrastructure that is prone to leaks, with the last failure in 2016 that required emergency repairs.

Classification	2019 Estimated Spending	2020 Estimated Spending	2021 Estimated Spending	2022 - 2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	850,000	-	-	-	850,000
Construction Engineering	-	145,260	145,260	145,269	437,789
Construction	-	7,014,740	15,982,740	16,902,664	39,898,144
Other Professional Services	10,000	20,000	20,000	-	50,000
Land & Easements	24,000	100,000	76,000	50,000	250,000
Totals	\$ 884,000	\$ 7,280,000	\$ 16,224,000	\$ 17,097,933	\$ 41,485,933

Project Justification and Operating Impact

This project was identified as one of the highest priority replacement water mains in the Aged Pipe Replacement (APR) Program study. By proactively replacing aged pipe, the Authority mitigates the risk of catastrophic failure and costly repair.

Electricity costs associated with pumping is expected to decrease, as the new pipeline will have improved hydraulic capabilities. Operational costs associated with emergency pipeline repairs are also expected to decrease as the average age of the transmission system decreases. Operational costs associated with these types of repairs are classified in the Transmission Division operating budget, while repairs over \$10,000 are capitalized as part of the annual AR&R budget.

Project Details

Project Manager:	Jacob Wilson		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	\$1,287,789
Scheduled Completion Date:	Fiscal Year 2023	Construction Contract:	TBD

Quarles Water Treatment Plant 1 Replacement

This project will demolish all structures associated with Quarles Plant 1, which is nearly 60 years old, and rebuild a new water treatment facility in its place. The engineering on this project started in 2014 with a three-year construction schedule beginning in 2017. The new plant will have a treatment capacity of 33 million gallons per day, which is less than the original plant's 42 million gallon per day capacity. This reduction in treatment capacity will not change the permitted capacity from Quarles and is in response to the reduction in per capita demand of CCMWA's service area over the last decade. If additional treatment capacity is needed from Quarles in the future, the new water treatment plant can be expanded to add another 33 million gallons per day of treatment capacity. The new plant will increase the reliability of water production from the Quarles campus.

Classification	Prior Year(s) Actual Spending	2018 Actual Spending (estimated)	2019 Estimated Spending	2020 - 2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	2,777,276	-	-	-	2,777,276
Construction Engineering	244,653	949,912	1,328,510	2,611,571	5,134,646
Construction	4,672,840	22,043,247	29,342,857	15,731,165	71,790,109
Materials	-	8,359	63,907	127,813	200,079
Other Professional Services	4,515	1,308	264,726	529,451	800,000
Totals	\$ 7,699,284	\$ 23,002,826	\$ 31,000,000	\$ 19,000,000	\$ 80,702,110

Project Justification and Operating Impact

CCMWA's original water treatment plant, built in the 1950's and now referred to as the Quarles Water Treatment Plant 1, has reached the end of its useful life and is in constant need of repairs. However, demolishing the entire plant to rebuild a new plant would decrease the total treatment capacity of the Quarles campus. Instead of demolishing the entire building, the original water treatment plant will be partially demolished, and the remaining section will remain operational until the new section is completed. This phased construction will allow for operational flexibility from Quarles and prevent loss of treatment capacity during peak times.

The new Quarles Water Treatment Plant 1 should not have a major impact on the operating budget because it will have a similar treatment capacity as the old plant. Electricity and water treatment chemical costs should remain constant after the new plant is completed, but repair and maintenance expenses related to Plant 1 should decrease due to the replacement of old equipment with new equipment.

Project Details

Project Manager:	Lance Buchanan		
Project Start Date:	Fiscal Year 2014	Engineering Contract:	\$7,911,922
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	\$71,790,109

Quarles Plant 2 SCADA Replacement

This project is intended to overhaul and upgrade the Supervisory Control and Data Acquisition (SCADA) system at Quarles Plant 2. The current system was installed in 2002 and has reached the end of its useful life due to hardware and software obsolescence. The project scope includes replacement of SCADA hardware and software, sever equipment, programmable logic controls (PLCs), panels, and field instruments. The project will also include installation of new conduit and fiber between the Quarles Water Treatment Plant and the Quarles Raw Water Pump Station, modifications to the Plant 2 operators' station, a new server room on the second level, and removal of control panels. The first year of this project will involve Operations and Engineering staff to develop a workplan for the complete overhaul the redesign of CCMWA's SCADA systems with a new architecture reflecting the interconnectedness of all CCMWA locations and various information systems.

Classification	2018 Actual Spending (estimated)	2019 Estimated Spending	2020 Estimated Spending	2021 - 2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	25,000	175,000	-	-	200,000
Construction Engineering	-	100,000	200,000	100,000	400,000
Construction	-	100,000	740,000	1,860,000	2,700,000
Materials	-	-	-	246,464	246,464
Other Professional Services	-	25,000	100,000	-	125,000
Totals	\$ 25,000	\$ 400,000	\$ 1,040,000	\$ 2,206,464	\$ 3,671,464

Project Justification and Operating Impact

The SCADA system has become an integral part of the water treatment process since its installation 16 years ago; however, due to the age of the system it is becoming difficult to locate replacement parts for the existing equipment. Older PLCs are slower to respond to system changes and have been failing at an increasing rate over the last two years.

Replacement of the existing SCADA system should minimize the likelihood of potential downtime which would impact operation of the plant and should decrease the cost of maintaining aging equipment. The 2019 Quarles Division budget has an additional allocation of \$25,000 for SCADA maintenance and repairs in response to failing equipment. Until the system is fully replaced, similar costs are expected. After the SCADA system is upgraded, maintenance costs for SCADA should decrease in the operating budget.

Project Details

Project Manager:	Lance Buchanan		
Project Start Date:	Fiscal Year 2018	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2022	Construction Contract:	TBD

Quarles Taste & Odor Process Improvements

This project will involve the addition of a new treatment process located at the Quarles Raw Water Pump Station site to address intermittent taste and odor problems. The actual pretreatment process will be selected during the design process of this project but will most likely involve the use of powdered activated carbon, which is already effectively in use at the Wyckoff Raw Water Pump Station to address taste and odor concerns.

Classification	2019 Estimated Spending	2020 Estimated Spending	2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	242,500	-	-	242,500
Construction Engineering	-	121,250	121,250	242,500
Construction	-	2,467,600	1,963,200	4,430,800
Other Professional Services	42,500	78,750	78,750	200,000
Totals	\$ 285,000	\$ 2,667,600	\$ 2,163,200	\$ 5,115,800

Project Justification and Operating Impact

The existing treatment process at the Quarles Water Treatment Plant does not include any specific processes to address intermittent taste and odor events which might occur.

If powdered activated carbon is chosen as the pretreatment process for this project, the annual cost of procuring the product is estimated to be less than \$20,000 and would be charged to the Quarles Division budget under water treatment chemicals.

Project Details

Project Managers:	Patrick Pherson & Jacob Wilson		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	TBD

Wyckoff 6MG Clearwell Addition

This project will provide approximately 6 million gallons (MG) of additional clearwell storage for the Wyckoff Water Treatment Plant. Water stored in clearwells has been fully treated but is being detained for the required contact time with chlorine disinfectant prior to being pumped into the transmission system. The two existing 3 MG clearwells at the Wyckoff Plant were constructed in 1964 and 1984. Both clearwells are in good structural condition and should have more than 25 years of useful life remaining. A facilities assessment conducted in 2014 determined that the existing clearwell storage capacity was inadequate for a 72 MGD plant, providing a storage to treatment ratio of only 8.33% compared to the industry standard of 15%. The addition of a 6 MG clearwell will increase the storage to treatment ratio at Wyckoff to 15% for an 82 MGD plant, which covers the existing plant plus 10 MGD to allow for future plant expansion.

Classification	2019 Estimated Spending	2020 Estimated Spending	2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	300,000	-	-	300,000
Construction Engineering	100,000	100,000	100,000	300,000
Construction	1,400,000	5,740,000	6,089,600	13,229,600
Other Professional Services	300,000	400,000	300,000	1,000,000
Totals	\$ 2,100,000	\$ 6,240,000	\$ 6,489,600	\$ 14,829,600

Project Justification and Operating Impact

Although CCMWA can take one clearwell out of service for maintenance, the remaining clearwell does not provide enough storage for adequate contact time with chlorine disinfectant. To accommodate the decreased storage capacity, the plant must chlorinate raw water instead of finished water to provide the necessary contact time, which can increase disinfection byproducts. By adding an additional clearwell, the Wyckoff plant would be able to take clearwells out of service for necessary maintenance without sacrificing treatment standards.

This project will not have an annual impact on the operating budget; however, every five years the Wyckoff Division will budget approximately \$75,000 in general maintenance and repairs for cleaning and inspection of the additional clearwell.

Project Details

Project Manager:	Chris Dillard		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	TBD

Wyckoff Maintenance Building Renovation

This project will involve the renovation of the Maintenance Building at the Wyckoff Water Treatment Plant campus and possibly the finishing of the second floor of the Wyckoff Water Treatment Plant to provide additional space. The Maintenance Building was designed and built in the 1996 – 1997 timeframe for a smaller staff than is currently housed in the building and was not designed to contain communication hub equipment. Initially, a consultant will be engaged to perform a space needs analysis, which will result in a detailed scope of work. Any decision related to staffing and space needs will be made in conjunction with other space relocations across the Authority.

Classification	2019 Estimated Spending	2020 Estimated Spending	2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	50,000	50,000	-	100,000
Construction Engineering	-	25,000	25,000	50,000
Construction	-	393,000	515,800	908,800
Totals	\$ 50,000	\$ 468,000	\$ 540,800	\$ 1,058,800

Project Justification and Operating Impact

The current Maintenance Building on the Wyckoff Water Treatment Plant property cannot provide enough workspace for the employees assigned to the building and many employees share offices. In addition, there have been ongoing roof condensation issues in the building resulting in damage to stored electronics equipment. By renovating the space and possibly utilizing space elsewhere on the Wyckoff property, enough workspace can be provided to meet the needs of current staff and allow for adequate storage of climate sensitive, computerized equipment.

The operating impact of this project is difficult to estimate because the scope of the project is not clearly defined. If unused space in the Treatment Plant is finished to provide additional workspace, there could be an impact to electricity and natural gas expenses because the unused space is not currently climate controlled. As this project moves further along in the design phase, operational costs will be estimated based on the selected design.

Project Details

Project Manager:	Ken Janney		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	TBD

Pete Shaw Tank No. 2

This project will add a second 5-million-gallon finished water storage tank at the Pete Shaw location and will enhance the transmission system's ability to adequately serve higher elevation areas of northeast Cobb County during periods of high water demand. By strategically placing finished water storage tanks throughout Cobb County, CCMWA can work to mitigate transient pressures in the transmission system.

Classification	2018 Actual Spending (estimated)	2019 Estimated Spending	2020 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	97,212	46,688	-	143,900
Construction Engineering	-	39,159	13,053	52,212
Construction	-	2,814,153	198,947	3,013,100
Other Professional Services	-	100,000	100,000	200,000
Totals	\$ 97,212	\$ 3,000,000	\$ 312,000	\$ 3,409,212

Project Justification and Operating Impact

By adding a second storage tank at the Pete Shaw location, CCMWA will gain operational flexibility when one of the tanks must be taken out of service for maintenance. The area served by the current Pete Shawn tank is also at risk

Operating costs related to an additional storage tank include general tank maintenance, regular cleanings, and inspections. These costs are estimated to be approximately \$40,000 per year for the new storage tank and will be included in the Transmission Division budget after the tank is constructed.

Project Details

Project Manager:	Ken Janney		
Project Start Date:	Fiscal Year 2018	Engineering Contract:	\$197,212
Scheduled Completion Date:	Fiscal Year 2020	Construction Contract:	TBD

Asset Renewal & Replacement Projects

	Prior Year Allocations Carried Over	2019 Additional Allocation	2019 Total Allocation	Estimated Prior Year Investments	2019 Budgeted Project Spending
General and Administration					
Remodeling of 1190 Atlanta Industrial Drive	250,000	66,389	316,389	46,389	270,000
	250,000	66,389	316,389	46,389	270,000
Engineering					
Replace 2010 Ford Explorer (10-02)	-	42,000	42,000	-	42,000
Real Time Flow Meter Data to SCADA	-	50,000	50,000	-	50,000
CORS-GNSS Reference Station	-	16,000	16,000	-	16,000
	-	108,000	108,000	-	108,000
Information Technology					
Replace 2009 Ford Explorer (09-03)	-	38,000	38,000	-	38,000
Document Management System	-	25,000	25,000	-	25,000
AV Upgrades for Quarles Large Conference Room	-	58,100	58,100	-	58,100
Replace VMWare Server Hosts & Switches	-	82,000	82,000	-	82,000
SCADA Backup Solution	-	50,000	50,000	-	50,000
	-	253,100	253,100	-	253,100
Safety & Security					
Upgrade Access Control Panels and Cards to Encrypted System	-	36,000	36,000	-	36,000
Install Lower Gate Operators at Lost Mountain Tank Site	-	66,000	66,000	-	66,000
Groover Mountain Tank Site Fence Replacement	-	23,000	23,000	-	23,000
Pine Mountain Tank Site Fence Replacement	-	35,000	35,000	-	35,000
Upgrade Quarles Remaining Analog Cameras to IP Cameras	-	55,000	55,000	-	55,000
Relocate Wyckoff Main Gate Camera and Install New Tag Camera	-	17,000	17,000	-	17,000
Access Control Install for 2 Exterior Doors at Admin Building	-	10,000	10,000	-	10,000
	-	242,000	242,000	-	242,000
Hickory Log Creek					
Replace 2008 Ford F150 (08-07)	-	31,500	31,500	-	31,500
Loading Dock at Pump Station	-	27,300	27,300	-	27,300
Add Restroom to Pump Station Building	-	10,500	10,500	-	10,500
	-	69,300	69,300	-	69,300
Wyckoff Treatment Division					
Replace 2007 Ford Escape (07-03)	-	35,000	35,000	-	35,000
Relocate Sedimentation Basin Drain Valves	-	60,000	60,000	-	60,000
Residuals Management Filter Press VFD replacements	-	83,600	83,600	-	83,600
Filter Console Panelview Upgrade	-	66,500	66,500	-	66,500
HS Westside Header 36" Gate Valve Replacement	-	50,000	50,000	-	50,000
Particle Counter and Turbidimeters Communication Upgrades	-	35,000	35,000	-	35,000
Wyckoff Clearwell Repairs	100,000	-	100,000	43,950	56,050
Raw Water Intake Tower Structure Repairs	150,000	-	150,000	57,290	92,710
Liquid Lime System for WTD Residuals	550,000	550,000	1,100,000	72,809	1,027,191
SSEQ Decant System	490,000	200,000	690,000	46,309	643,691
Residuals Filter Press and Lime Silo PLC	40,000	-	40,000	34,759	5,241
Raw Water Pump and Motor #5 Replacement	558,625	891,375	1,450,000	69,199	1,380,801
	1,888,625	1,971,475	3,860,100	324,316	3,535,784

	Prior Year Allocations Carried Over	2019 Additional Allocation	2019 Total Allocation	Estimated Prior Year Investments	2019 Budgeted Project Spending
<u>Quarles Treatment Division</u>					
Hypo Building HVAC Improvements		100,000	100,000	-	100,000
Liquid Lime System for QTD Residuals		100,000	100,000		100,000
Q2 Filter Bldg & RWPS #2 Beck Actuator Replacements		500,000	500,000		500,000
Quarles RWPS #1 Beck Actuator Installation	78,000	-	78,000	-	78,000
Quarles RWPS #2 Exhaust System Improvements	30,000	170,000	200,000	20,000	180,000
Quarles Plant 2 Effluent Valve Beck Actuator Replacements	282,245	(96,669)	185,576	111,710	73,866
	390,245	773,331	1,163,576	131,710	1,031,866
<u>Maintenance</u>					
Replace 1991 International Boom Truck (90-01)	-	70,000	70,000	-	70,000
Replace 2008 Ford Sport-Trac (08-02)	-	38,000	38,000	-	38,000
Replace 2006 Ford F150 (06-01)	-	38,000	38,000	-	38,000
Groover Pump Station Refurbishment	-	78,000	78,000	-	78,000
	-	224,000	224,000	-	224,000
<u>Laboratory</u>					
Replace 2010 Ford Explorer (10-04)	-	38,000	38,000	-	38,000
Replacement of 2 YSI Sondes with accessories	-	35,000	35,000	-	35,000
Simmons Lab Expansion	700,000	500,000	1,200,000	122,995	1,077,005
	700,000	573,000	1,273,000	122,995	1,150,005
<u>Transmission</u>					
Reservation for Purchase of Pipe Yard Replacement Inventory	-	125,000	125,000	-	125,000
Meter Replacements (4 meters, 2 locations)	-	150,000	150,000	-	150,000
Reservation for Unplanned Pipe & Valve Replacements	-	515,000	515,000	-	515,000
Replace 2013 Ford F150 (13-02)	-	40,000	40,000	-	40,000
Replace 2013 Ford F150 (13-03)	-	40,000	40,000	-	40,000
Wyckoff Wash Water Tank Painting	-	375,000	375,000	-	375,000
Planned Blow-Off Replacements	300,000	1,545,158	1,845,158	41,865	1,803,293
Connections for AMI System	50,000	(30,000)	20,000	-	20,000
	350,000	2,760,158	3,110,158	41,865	3,068,293
<u>Totals</u>	<u>\$ 3,578,870</u>	<u>\$ 7,040,753</u>	<u>\$ 10,619,623</u>	<u>\$ 667,275</u>	<u>\$ 9,952,348</u>

*Note: Red font indicates project carrying over from prior year(s)

DEBT OBLIGATIONS

Cobb County-Marietta Water Authority utilizes the following standards when considering the use of debt as a funding source:

- Debt should be utilized only for construction of capital projects which are new additions to CCMWA's assets and which will provide benefit to future generations.
- CCMWA strives to maintain AAA bond ratings from the three bond rating agencies in order to obtain the lowest possible rates when financing projects through debt issuance.
- CCMWA will consider the expected useful life of any capital project financed through issuance of debt and will not secure debt with a term longer than the expected useful life of the capital project.
- In addition to issuance of revenue bonds, CCMWA considers the use of loans through the Georgia Environmental Finance Authority (GEFA) when considering sources for financing capital projects through debt issuance.
- When it is fiscally responsible, CCMWA will consider financing capital projects with cash to avoid the issuance of debt.
- Bond premiums, discounts, and issuance costs are deferred and amortized over the term of issued bonds using the effective interest method.
- Deferred charges on refunding are amortized over the shorter of the life of the original bond or the refunding bonds, using the effective interest method.
- Bond premiums, discounts, and deferred charges on refunding are presented as additions and reductions to the face amount of bonds payable, whereas issuance costs are recorded as deferred charges.

Legal Debt Limit

Cobb County-Marietta Water Authority has a legal debt limit of \$400 million as established by the Georgia General Assembly. CCMWA had total liabilities (debt) of \$78,177,648 as of January 1, 2018, with \$13,247,977 classified as current liabilities (due in less than one year) and \$64,929,671 classified as long-term liabilities. Compensated absences payable, both current and long-term, contributed to \$2,017,244 of total liabilities. CCMWA estimates a debt ratio of 10.1% at January 1, 2019 and a debt service coverage ratio of 7.1x for fiscal year 2019.

No additional debt was issued in 2018 to finance capital projects, general operations, or to refinance existing debt. CCMWA also does not intend to issue debt in the current 5-year plan; however, if interest rates become favorable, refinancing of existing debt could occur. Only the interest payments on outstanding debt are included in the calculation of net income; however, principal payments are considered when planning annual net income and capital spending.

Principal and Interest Payments – 2018 through 2023

Series 2009 Revenue Bonds - Maturity 2021

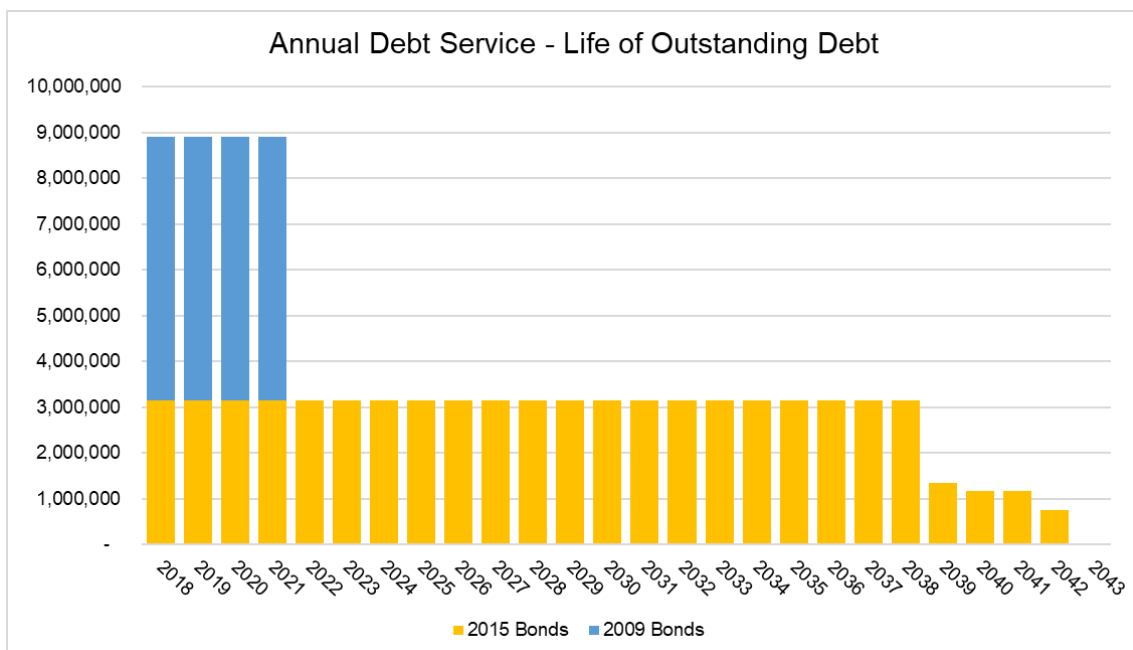
Fiscal Year Ending December 31,	Principal	Interest	Total
2018	\$ 4,870,000	\$ 894,438	\$ 5,764,438
2019	5,010,000	748,338	5,758,338
2020	5,210,000	547,938	5,757,938
2021	5,475,000	287,438	5,762,438
2022	-	-	-
2023	-	-	-

Series 2015 Revenue Bonds - Maturity 2042

Fiscal Year Ending December 31,	Principal	Interest	Total
2018	\$ 1,215,000	\$ 1,918,425	\$ 3,133,425
2019	1,280,000	1,857,675	3,137,675
2020	1,330,000	1,806,475	3,136,475
2021	1,395,000	1,739,975	3,134,975
2022	1,435,000	1,698,125	3,133,125
2023	1,510,000	1,626,375	3,136,375

Total Long-Term Debts Payable

Fiscal Year Ending December 31,	Principal	Interest	Total
2018	\$ 6,085,000	\$ 2,812,863	\$ 8,897,863
2019	6,290,000	2,606,013	8,896,013
2020	6,540,000	2,354,413	8,894,413
2021	6,870,000	2,027,413	8,897,413
2022	1,435,000	1,698,125	3,133,125
2023	1,510,000	1,626,375	3,136,375



FINANCIAL POLICIES

The financial management policies adopted by CCMWA are intended to provide guidelines for staff to use in making financial decisions related to daily operations and strategic long-term planning. These policies were established to ensure a shared understanding of financial practices across the Authority and to promote stability and continuity in financial reporting. CCMWA's financial policies are considered a living document and are reviewed by staff and the Board on an annual basis to accommodate change in the Authority's needs and structure. The following financial policies have been adopted by the CCMWA Board:

- Financial Management Policy
- Capitalization Policy
- Investment Policy
- Procurement Policy

Financial Management Policy

CCMWA has adopted a Financial Management Policy to provide regulatory guidelines in all areas of the Authority's financial reporting. This policy also addresses internal controls and the proper application of State and Federal accounting standards. Board adopted guidelines regarding financial management include, but are not limited to, the following:

Debt Issuance

- Debt issuance for capital improvements and equipment shall be considered when at least one of the following conditions exist:
 - When one-time, non-continuous projects are required
 - When CCMWA determines that future users will receive a benefit from the capital improvement financed by the debt
 - When the project is necessary to provide basic services to CCMWA rate payers
 - When total debt does not constitute an unreasonable burden to the rate payers
 - When exhaustion of the use of all other possible revenue sources provides no alternative funding for capital projects
- When CCMWA utilizes debt financing, the following will occur to assure that the debt is soundly financed:
 - Analysis of the financial impact, both short-term and long-term, of issuing debt
 - Conservative projection of the revenue sources that CCMWA will use to repay the debt
 - Assurance that the term of any long-term debt CCMWA incurs shall not exceed the expected useful life of the asset the debt financed
 - Maintaining a debt service coverage ratio that assure that revenues pledged for repaying of outstanding debt will be adequate to make required debt service payments

- Borrowings by CCMWA should be for a duration that does not exceed the economic life of the capital improvement that it financed and, when feasible, should be shorter than the projected economic life.

Accounting

- CCMWA shall maintain a system of financial monitoring, control, and reporting for all operations and funds to provide an effective means of assuring that financial integrity is not compromised.
- CCMWA shall establish and maintain a high standard of accounting practices that conform to [Generally Accepted Accounting Principles \(GAAP\)](#). These principles will be updated when required by the [Governmental Accounting Standards Board \(GASB\)](#), which is the authority charged with defining and developing GAAP.
- CCMWA shall maintain a minimum number of funds consistent with legal compliance and sound financial administration. The Authority shall adhere to the mandatory fund structure included in the Georgia [Department of Community Affairs' \(DCA\)](#) chart of accounts.
- An independent audit will be performed annually by a qualified, independent auditor, in compliance with [Generally Accepted Audit Standards \(GAAS\)](#).

Internal Controls

- CCMWA's internal control system is intended to:
 - Promote orderly, economical, efficient, and effective operations
 - Safeguard resources against loss due to waste, abuse, mismanagement, errors, and fraud
 - Promote adherence to statutes, regulations, bulletins, and procedures
 - Develop and maintain reliable financial data
 - Accurately report financial data in a timely manner

Budgeting

- CCMWA shall annually adopt a [balanced budget](#) where operating revenues are equal to or greater than operating expenditures.
- CCMWA shall prepare and publish an annual budget document in accordance with the budget policy and will strive to prepare the budget to meet the standards of the GFOA Distinguished Budget Award Program.
- The operating budget will be prepared utilizing the [modified accrual basis of accounting](#) as a means of estimating the flow of financial resources on an annual basis.
- Expenditures shall be budgeted on a "line-item" basis. This type of budget focuses on categories of expenditures such as personnel services, contractual services, supplies, equipment, etc. within each Division.
- Revenue estimates made for the budget process shall be done through an analytical process to ensure that revenues are estimated conservatively, prudently, and realistically.

- CCMWA shall establish a cash reserve to cover the cost of expenditures caused by unforeseen emergencies, shortfalls caused by revenue declines, and eliminate the need for any short-term borrowing for cash flow purposes. This reserve shall accumulate and be maintained at an amount which represents no less than two months of operating and debt expenditures.
- The budget document shall include goals and objectives for each Division that measure Division effectiveness on a historical basis and for the upcoming year. Goals and objectives should be linked to the Authority wide goals outlined in the current Strategic Plan.
- The Finance Division shall prepare and distribute timely, monthly financial reports that compare actual revenues, outstanding encumbrances, and expenditures with budgeted amounts.
- Budget amendments that increase the operations budget and/or increase the number of authorized positions must be approved by the CCMWA Board. Budget reallocations, which do not increase the overall operations budget and/or do not increase the number of positions, must be approved by the General Manager.
- CCMWA's capital budget will consist of the following:
 - [Asset Renewal and Replacement \(AR&R\)](#) – a capital budget for renewal or replacement of capital assets in which individual projects are valued at less than \$3,000,000
 - [Capital Improvement Plan \(CIP\)](#) – a rolling five-year capital budget for construction projects valued at more than \$3,000,000. A project budget is adopted for each capital project and adopted allocations do not lapse at the end of the fiscal year, instead they remain in effect until the project is complete or a reallocation is made by the CCMWA Board.

Financial Reporting

- In conjunction with the annual independent audit, the Authority shall prepare a [Comprehensive Annual Financial Report \(CAFR\)](#) in accordance with GAAP and will strive to prepare the CAFR to meet the standards of the GFOA Certificate of Achievement for Excellence in Financial Reporting Program.
- The Finance Division will prepare and present a summarized monthly and year to date unaudited, financial report to the Board. This financial report will include a Statement of Revenue and Expenditures, a comparative schedule of water sales in both dollars and gallons, and a capital improvement plan report.
- The Finance Division will prepare and distribute monthly reports to each division within the Authority to provide staff with adequate financial information to make sound business decisions. This financial report will include expenses, personnel costs, and recommended budget line-item reallocations for accounts in excess of budget.
- A copy of the Authority's annual independent audit will be submitted to the Georgia Division of Audits and Accounts in accordance with OCGA 36-81-7.

Investment Policy

CCMWA has adopted an Investment Policy to guide financial decisions related to long term planning. This policy dictates how funds are to be invested by CCMWA in order to ensure adequate liquidity to fund current operations and planned capital projects. The investment strategy outlined in this policy focuses on maximizing return on investment and mitigating risk. Board adopted guidelines regarding investments include, but are not limited to, the following:

- CCMWA shall delegate authority to manage the investment portfolio to an external Investment Advisor, selected through a [request for proposals \(RFP\)](#) process and subject to Board review and evaluation.
- Only financial institutions, brokers, and dealers that have been pre-qualified and formally approved by the CCMWA Board are eligible to provide investment services as a designated qualified bidder.
- All financial institutions on the qualified bidder list shall be monitored on an ongoing basis to ensure compliance with applicable laws and CCMWA policies.
- Any financial institution that holds investment funds for CCMWA is required to abide by a “Suitability of Collateral” agreement which corresponds to the Georgia state statute regarding the collateralization of public funds.
- Maturity of investments shall be staggered to provide a stable income and should be structured to mature at specific times to meet expected cash requirements, limiting the need to sell securities prior to maturity.
- No more than 20% of the entire portfolio value may be deposited with a single bank or invested in securities of one issuer, excluding investments guaranteed by the U.S. Government and investment pools such as Georgia Fund 1.
- A minimum of 15% of the entire portfolio value shall be held in U.S. Treasury bills, overnight purchase agreements, the [Local Government Investment Pool \(LGIP\)](#), or money market accounts to ensure sufficient liquidity to meet current obligations.
- A third party shall be obtained for safekeeping of investment securities to protect CCMWA from potential fraud and embezzlement.
- Competitive bidding shall be the primary method of soliciting investment opportunities to ensure the best rate of return on investment.
- CCMWA’s investment portfolio shall be updated monthly and included in the financial report to the Board at every monthly board meeting.
- CCMWA’s investment advisor shall submit quarterly reports to the Board that summarize recent market conditions, economic developments, and anticipated investment conditions, as well as the investment strategies employed in the most recent quarter, the quarter’s total investment return, and a summary of all purchase transactions made in the last quarter.

Capitalization Policy

CCMWA has adopted a Capitalization Policy to set dollar thresholds for capitalization of assets and define depreciation methodologies based on asset categories. Capital assets are financial resources that are tangible or intangible in nature, with a useful life expectancy greater than three years. These resources provide the Authority services in the normal course of operations and are not for resale. The capitalization policy outlines the following thresholds, which are used to determine if an asset qualifies for capitalization:

<u>Capital Asset Class</u>	<u>Threshold</u>	<u>Useful Life</u>
Construction in Progress	> \$1	Various
Land and Land Improvements	> \$1	Various
Computer Hardware and Software	> \$5,000	3 Years
Furniture, Fixtures and Other Equipment	> \$5,000	5-7 Years
Laboratory and Monitoring Equipment	> \$5,000	10 Years
Building and Building Improvements	> \$10,000	25-50 Years
Infrastructure	> \$10,000	10 50 Years
Machinery and Equipment	> \$10,000	5-25 Years
Vehicles	> \$10,000	5 Years
Intangible Assets	> \$25,000	3-50 Years

Board adopted guidelines regarding capitalization include, but are not limited to, the following:

- Useful life of a capital asset is determined based on the asset's present condition, past experience with similar assets, physical environment of the asset, maintenance requirements of the asset, and expected service levels.
- The Authority shall periodically evaluate actual experiences with capital assets to be included in future useful life determinations and to determine if adjustments are needed.
- Capital assets are included the annual budget process and categorized, budgeted, and reported by account code.
- Significant costs related to a capital asset that are incurred in periods after the original acquisition will be included in the assets value and capitalized over the remaining estimated useful life of the asset, if one of the following apply:
 - Improvements provide additional value to the asset by extending the asset's original estimated useful life by another three years.
 - Improvements provide additional value to the asset by increasing the asset's ability to provide a specific service level.
- Repair and maintenance costs incurred to maintain an asset's original level of service shall be treated as operating expenses and not capitalized.

- Land is considered to be non-expendable, real property with an indefinite useful life and is not depreciated. The cost of land includes the purchase price plus legal fees, appraisal fees, and site preparation fees incurred to put the land in condition for its intended use.
- Land Improvements are considered non-building assets that enhance the quality or facilities the use of land. Land Improvements with limited lives, such as driveways, walkways, fences, parking lots, and landscaping are recorded separately and depreciated over their estimated lives. Land improvements such as fill, grading, and excavation that provide permanent benefits and incur limited deterioration with use or the passage of time are considered Land and are non-depreciable.
- Easements are considered a right to use land owned by another entity for a specific purpose and may be granted on a permanent or temporary basis. Permanent easements are recorded as Land and are non-depreciable. Temporary easements granted during a construction project are included in the cost of the project.
- The CCMWA Board or General Manager must directly authorize the donation, disposal, or transfer of any capital assets.

Procurement Policy

CCMWA has adopted a Procurement Policy to guide staff when making purchasing decisions and ensure the best products and services are obtained at the lowest total cost. This policy also outlines methods for obtaining competitive pricing to provide an equitable and fair method for acquiring goods and services. Board adopted guidelines regarding procurement include, but are not limited to, the following:

- **Purchase orders** shall be issued for all purchases made by the Authority to ensure proper budget allocation and division level approval.
- A purchase requisition is required for the purchase of budgeted goods and services between \$2,000 and \$9,999. The requisition shall include three verbal or emailed quotes, excluding purchases of replacement parts/service required for repair and maintenance of existing equipment and infrastructure, and must be approved by the Division Manager or Assistant Division Manager before a purchase order will be issued.
- A purchase requisition is required for the purchase of budgeted goods and services between \$10,000 and \$49,999. The requisition shall include three written quotes and must be approved by the Division Manager or a Director before a purchase order will be issued.
- Non-budgeted purchases of goods and services under \$50,000 must be approved by both the Division Manager and the General Manager or in their absence, a Director before a purchase order will be issued.
- Competitive quotes are not required for purchases of goods and services over \$2,000 and for purchases of replacement parts/service required for repair and maintenance of existing equipment and infrastructure over \$10,000 when accompanied by a **Sole Source request** form that has been approved by the Director of Operations and the General Manager. Sole source procurement shall be used only when a situation

warrants and must be supported by documentation that identifies why foregoing the competitive quote process is in the Authority's best interest.

- Purchases of goods and services over \$50,000 shall be made through a formal sealed bidding process. In compliance with the Official Code of Georgia Annotated (OCGA) 36-91-20, the sealed bidding process for purchases in this threshold shall be advertised two times with the first advertisement at least four weeks prior to the opening of the sealed bids or proposals. The second advertisement shall follow no earlier than two weeks after the publication date of the first advertisement.
- Sole source procurement of goods, services, and construction [contracts](#) over \$50,000 shall be presented to the Board for consideration and must include documentation to support the request.
- Construction contracts of \$100,000 or more shall be made through a formal sealed bidding process, in compliance with OCGA 36-91-20.
- Contracts adopted within a line item of the annual budget under \$100,000 and task authorizations under an approved Demand Services Contract under \$200,000 may be signed by the General Manager or a Director and do not require further action by the Board.
- Contracts in excess of \$100,000 and task authorizations under an approved Demand Services Contract in excess of \$200,000 must be presented to the Board for approval. The Board may authorize the Chairman, General Manager, or any other delegated authority to sign the contract.

STATISTICAL SECTION

The primary purpose of the Statistical Section in this document is to provide detailed information in tabular and graphical form that gives the reader a context for understanding the budgetary decisions and operational background of Cobb County-Marietta Water Authority. The data contained in this section includes information related to both revenues and expenses, and when possible, presents results for the most recent 10-year period.

Information about CCMWA's customers, rates, and production capacity are intended to assist the reader in understanding significant revenue trends that impacted current budgetary decisions. Information about operating costs per million gallons produced and electricity used per million gallons produced are provided to assist the reader in understanding trends related to operating expenses.

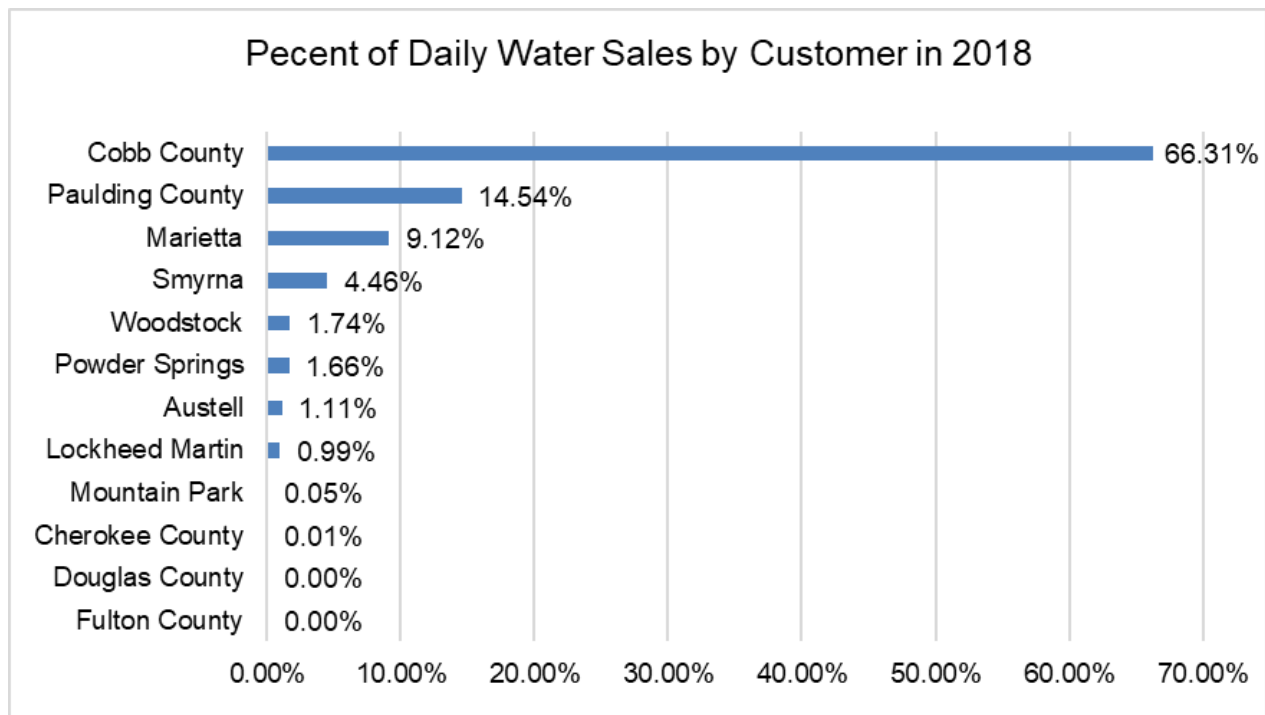
Demographic and economic measures of CCMWA's service area are presented to provide context for CCMWA's business environment. All demographic information is taken directly from the CCMWA's most recent Comprehensive Annual Financial Report and is reported on a fiscal year basis (as of December 31st). Information related to water quality is presented to represent CCMWA's commitment to providing safe, reliable drinking water to our customers. Finally, performance indicators of CCMWA are compared to the America Water Works Association's (AWWA) Industry Benchmark to highlight CCMWA's operational efficiency.

Cobb County-Marietta Water Authority's Customers

Cobb County-Marietta Water Authority currently has active contracts with the following customers:

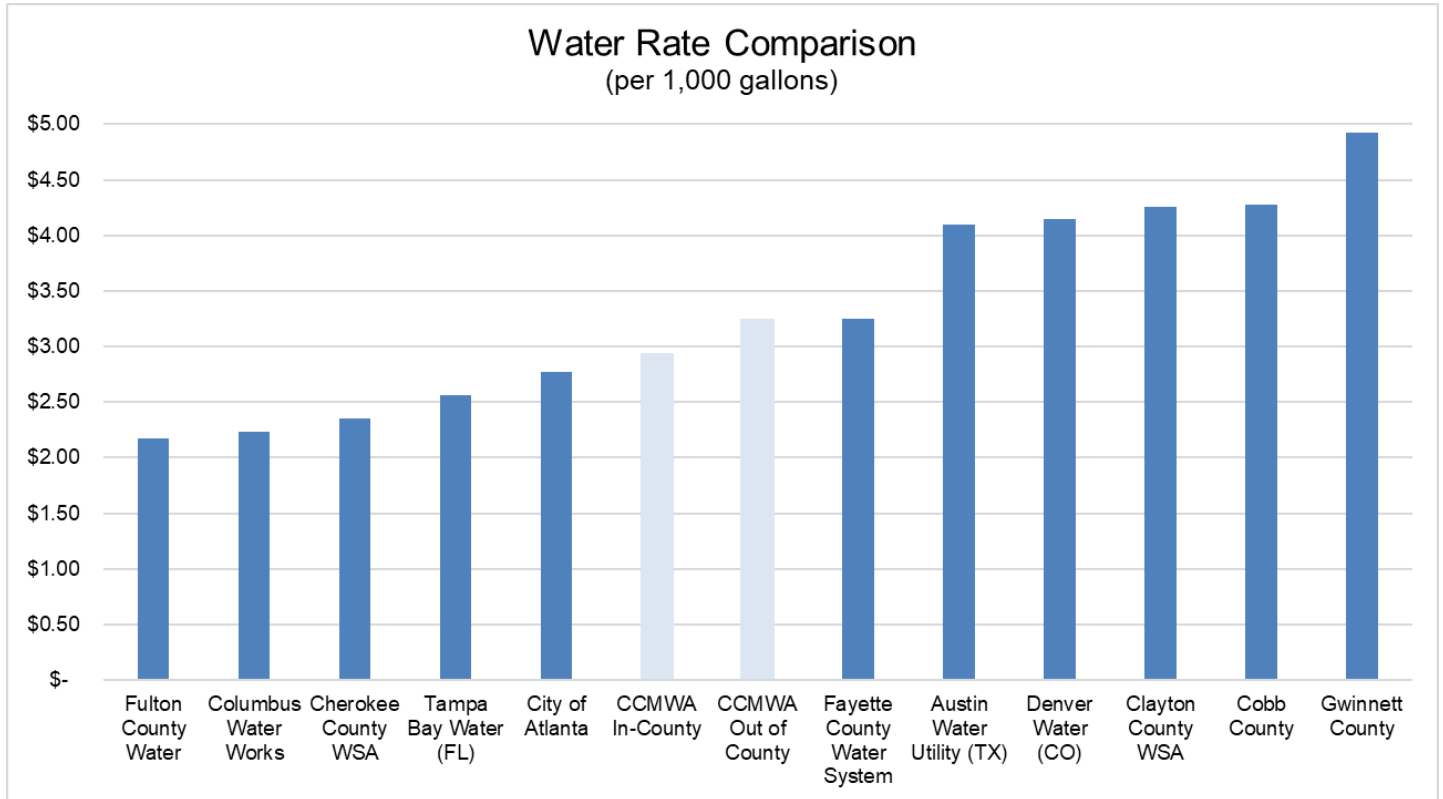
- Cherokee County Water and Sewer Authority (CCWSA)
- City of Austell
- City of Mountain Park
- City of Powder Springs
- City of Smyrna
- City of Woodstock
- Cobb County Water System
- Douglasville/Douglas County Water and Sewer Authority (DDCWSA)
- Lockheed Martin Aerospace and Defense Company
- Marietta Board of Lights and Water
- Paulding County Water System

Cobb County-Marietta Water Authority also has an inactive contract with Fulton County Public Works. The terms of this contract are still in effect, but there are no active connections between Fulton County's system and CCMWA's system. All contracted customers of CCMWA are shown below, listed by percentage of water sales.



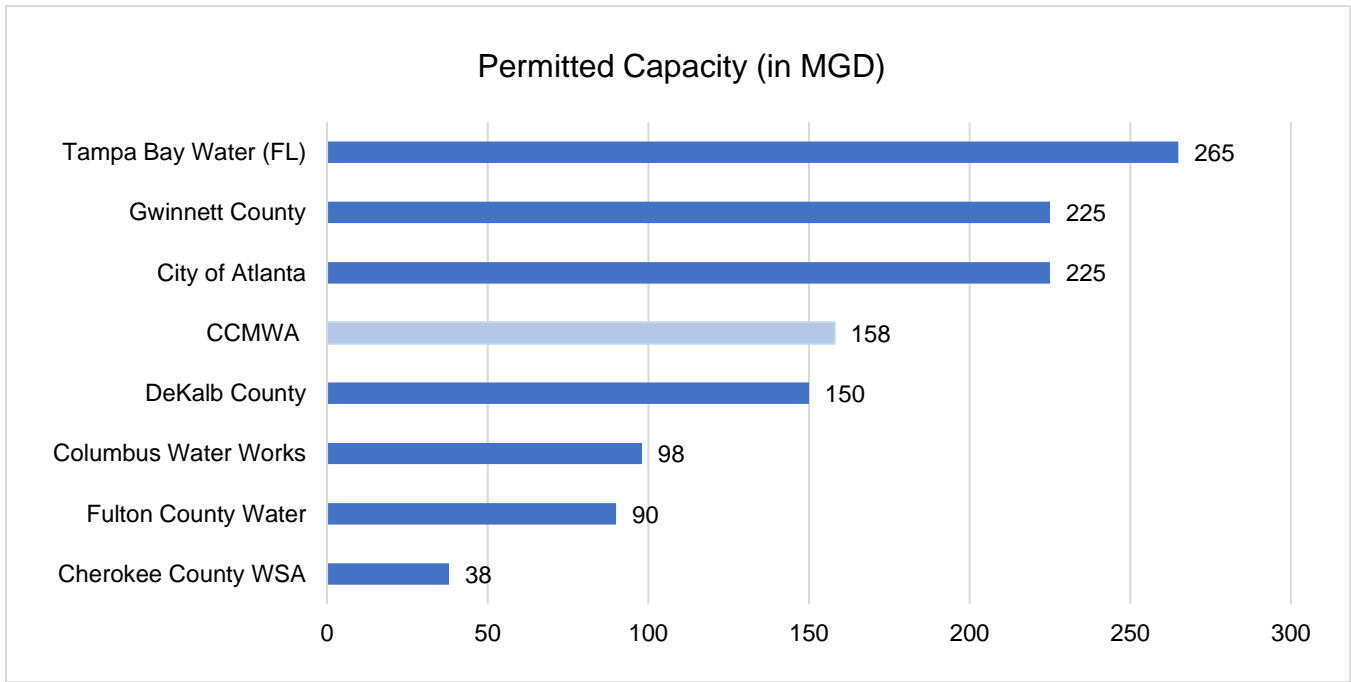
Rate Comparison Information

The following table represents select peer water purveyors of Cobb County-Marietta Water Authority in the Atlanta metropolitan area and similarly sized peer water purveyors outside of Georgia.

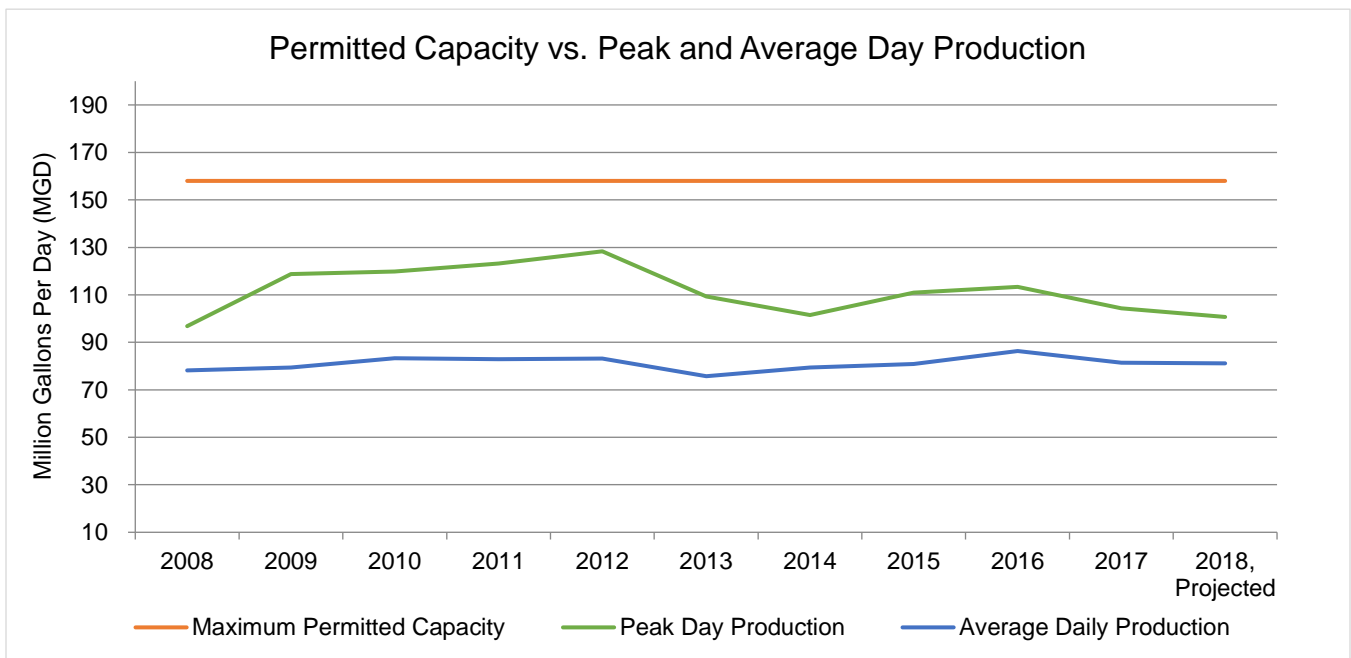


Permitted Production Capacity Comparison Information

The chart below represents total daily potable water production capacity of major peer water purveyors of Cobb County-Marietta Water Authority in the Atlanta metropolitan area and similarly sized peer water purveyors outside of Georgia.



The chart below compares CCMWA’s permitted capacity to average daily production. During the last ten years, average daily production has not exceeded 54% of production capacity and peak day production has not exceeded 81% of production capacity.



Costs per Million Gallons of Water Produced

Operational Cost per Million Gallons Produced & Thousand Gallons				
(Operating Expense / Million Gallons Produced) **Includes Depreciation				
Fiscal Year	MG Produced	Operating Expense	\$/MG	\$/K-Gal
2012	30,272	38,673,588	1,277.54	1.28
2013	27,451	40,152,408	1,462.69	1.46
2014	28,728	44,701,985	1,556.04	1.56
2015	29,445	45,099,147	1,531.64	1.53
2016	31,500	46,224,169	1,467.43	1.47
2017	29,612	46,093,835	1,556.59	1.56
2018, Projected	29,781	48,455,414	1,627.06	1.63

Kilowatt Hours of Electricity Used per Million Gallons of Water			
(KWH Used/ MG Produced)			
Fiscal Year	MG Produced	Kilowatts Used	KW/MG
2012	30,272	74,616,139	2,465
2013	27,451	70,321,147	2,562
2014	28,728	71,318,540	2,483
2015	29,445	72,424,851	2,460
2016	31,500	76,901,520	2,441
2017	29,612	73,595,318	2,485
2018, Projected	29,781	73,321,894	2,462

Demographic Information

Cobb County-Marietta Water Authority Cobb County, Georgia Demographic and Economic Statistics

Unaudited

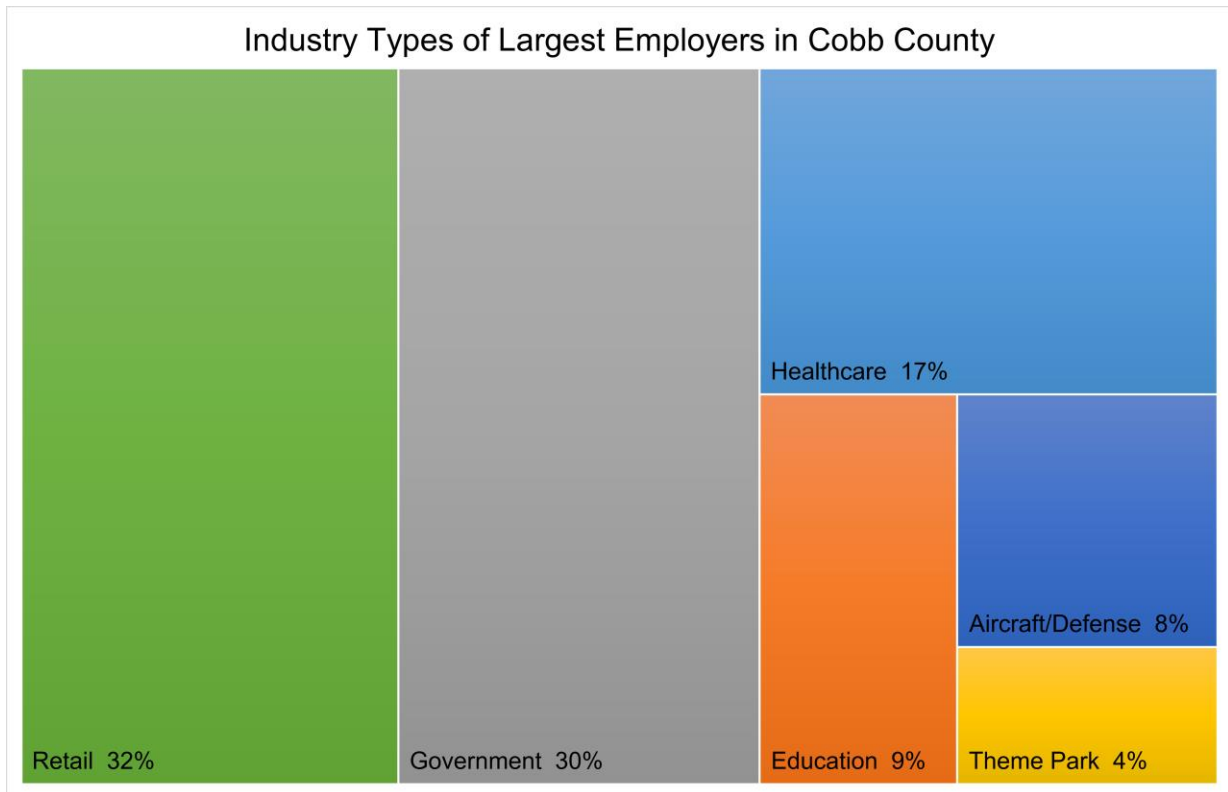
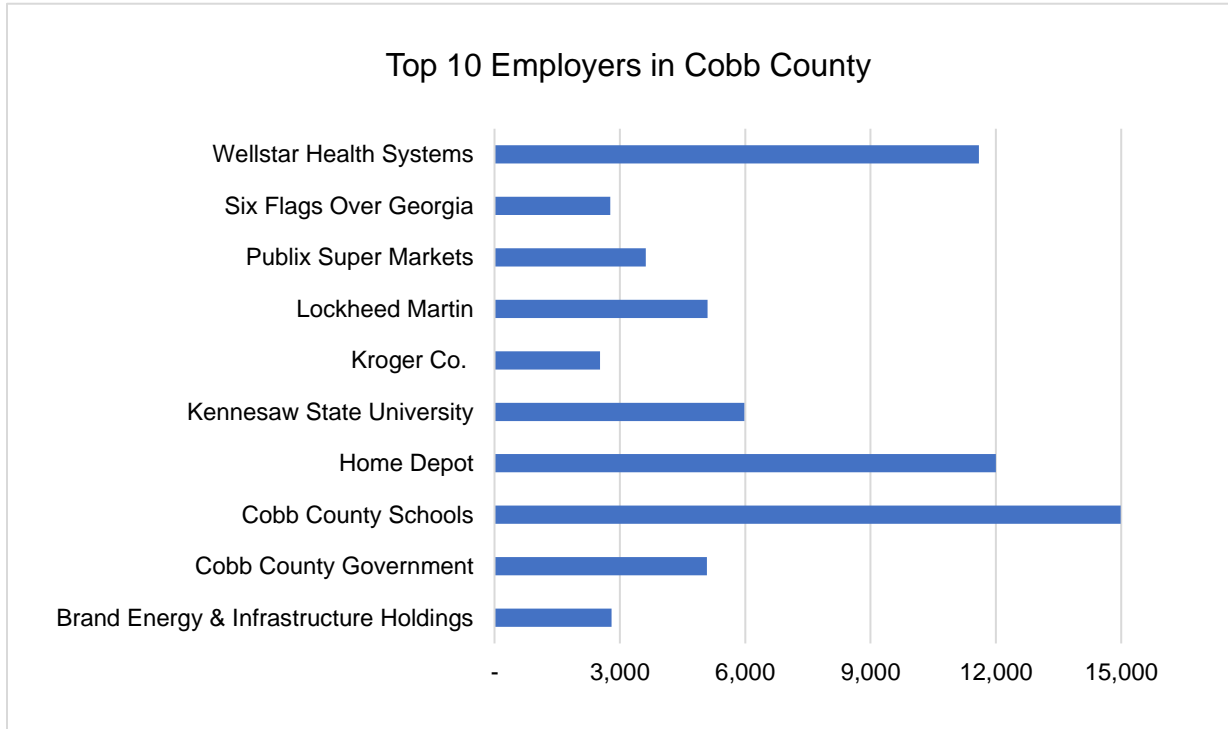
Fiscal Year	Population (1)	Personal Income (1)	Per Capita Personal Income (1)	County Unemployment Rate (2)
2008	679,820	31,744,830,000	46,696	6.20%
2009	684,780	29,643,900,000	43,290	9.60%
2010	689,750	30,144,950,000	43,704	9.50%
2011	697,550	30,776,120,000	44,120	8.40%
2012	707,170	31,338,650,000	44,316	7.30%
2013	716,950	32,029,550,000	44,675	7.10%
2014	726,850	32,765,870,000	45,079	6.00%
2015	733,860	33,827,430,000	46,095	4.90%
2016	741,334	35,410,880,000	47,766	4.50%
2017	753,860	35,656,700,000	47,299	3.60%

City	Population
Acworth	22,131
Marietta	59,067
Powder Springs	14,826
Smyrna	56,146
	<u>152,170</u>

***Sources:**

- (1) Woods and Poole Economics Data Pamphlet
- (2) Cobb County Office of Finance and Economic Development

Employer Demographics in the Cobb County Area



Water Quality Information

Water Treatment Process

The process begins by pumping untreated water from the Chattahoochee River or Allatoona Lake to the Quarles or Wyckoff Plant, respectively. A primary coagulant, alum, is added along with other chemicals to begin removal of particulate and dissolved organic matter from the raw water. The water is then directed to a process called flocculation, in which a gentle mixing of the water with coagulant produces larger particles, called floc, to form. The next process, sedimentation, occurs in a large, still basin, where the floc particles can settle to the bottom, clarifying the water. Next, the water flows through filters composed of anthracite coal and silica sand, trapping particles too small to settle in the sedimentation basins. After filtration, chlorine is added to maintain disinfection of the water all the way to the consumer, along with lime to provide protection from corrosion of copper and lead in home plumbing systems, and fluoride as required by the State of Georgia to provide protection from dental carries in consumers. At the Wyckoff Plant, an additional step of adsorption using granular activated carbon is used during the warmer months to ensure compliance with the Disinfection By-Product Rule.

Why are there contaminants?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- a) **Microbial Contaminants** such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- b) **Inorganic Contaminants** such as salts and metals which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- c) **Pesticides and herbicides** which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- d) **Organic chemical contaminants**, including synthetic (man-made) and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, and septic systems.
- e) **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Water Testing and EPA Results

The U.S. Environmental Protection Agency (EPA) has established treatment methods to reduce contaminants to levels that protect human health. CCMWA’s laboratory continuously monitors water quality to be sure it is properly treated to EPA standards. To ensure tap water is safe to drink, EPA prescribes limits on the number of certain contaminants in water provided by public water systems. The tables below show the results of our water quality analysis, as published in Cobb County Water System’s Consumer Confidence Report. The information presented in this report is representative of 2/3 of our produced drinking water. Every contaminant regulated by the EPA that was detected in our water, even in the minutest traces, is listed here. The following definitions are important for understanding the information presented within the tables.

- Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water.
- Maximum Contaminant Level Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Action Level (AL) is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must implement.
- Treatment Technique (TT) is a required process intended to reduce the level of a contaminant in drinking water.

EPA Regulated Inorganic Substances or Contaminants							
Substance (Unit)	Date Tested	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Fluoride ¹ (ppm)	2017	4	4	0.95	0.54 – 0.95	Erosion of natural deposits; water additive which promotes strong teeth	NO
Lead ² (ppb)	2017	AL =15	0	2.1	n/a	Corrosion of household plumbing systems	NO
Copper ³ (ppm)	2017	AL =1.3	0	0.053	n/a	Corrosion of household plumbing systems	NO
Nitrate/Nitrite ⁴ (ppm)	2017	10	10	1.2	BDL – 1.2	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	NO
Notes: ¹ Fluoride is added to water to help in the prevention of dental cavities (caries) in children. ² Of the 50 sites tested, 1 exceeded the action level. The next round of testing is due in 2020. ³ Of the 50 sites tested none exceeded the action level. The next round of testing is due in 2020. ⁴ Nitrate and Nitrite are measured together.							

Disinfection By-Products, By-Product Precursors and Disinfectant Residuals

TTHMs (Total Trihalomethanes) (ppb)	2017	80	n/a	59.0 ¹	16.0 – 96.0	By-products of drinking water disinfection	NO
TTHMs (Total Trihalomethanes) (ppb) - Stage 2	2017	80	0	44.0 ¹	35.0 – 44.0	By-products of drinking water disinfection	NO
HAA5 (Haloacetic Acids) (ppb)	2017	60	n/a	29.0 ²	13.0 – 37.0	By-products of drinking water disinfection	NO
HAA5s (Haloacetic Acids) (ppb) - Stage 2	2017	60	0	23.0 ¹	18.0 – 23.0	By-products of drinking water disinfection	NO
TOC (Total Organic Carbon) (ppm)	2017	TT	n/a	1.8	1.00 – 1.80	Decay of organic matter in the water withdrawn from sources such as lakes and streams	NO
Chlorite (ppm)	2017	1.0	0.8	0.33	0.09 – 0.33	By-product of drinking water disinfection	NO
Chlorine _{Free} (ppm)	2017	MRDL=4	MRDLG= 4	2.20	0.11 – 2.20	Drinking water disinfectant	NO

Notes: ¹ The highest detected LRAA at site 501
² The highest detected LRAA at site 506

Turbidity

Substance	Date Tested	MCL	MCLG	Level Found	Range	Typical Source	Violation
Turbidity ¹	2017	TT = 1 NTU	0	0.12	n/a	Soil runoff	NO
		TT = percentage of samples <0.3 NTU		100%	n/a		

Note: ¹Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Microbiological Contaminants

(Data presented in this table were from Systems that collected *more* than 40 Total coliform samples per month)

Substance	Date Tested Positive	MCL	MCLG	TT Level 1 Assessment Trigger	Level Detected	Likely Sources	Violation
Total coliform	07/2017 12/2017	TT	n/a	Exceeds 5.0% TC+ samples in a month	0.45% ² 0.45% ²	Naturally present in the environment	NO
E. coli	None	One Positive Sample ¹	0	n/a	0.0%	Human or animal fecal waste	NO

¹ A PWS will receive an E. coli MCL violation when there is any combination of an EC+ sample result with a routine/repeat TC+ or EC+ sample result.

² One positive sample out of 223 samples tested during the month.

Performance Indicators

Return on Assets			
(Net Income/Total Assets)			
Fiscal Year	Net Income	Total Assets	Return on Assets
2012	31,785,122	529,716,913	6.00%
2013	22,153,944	544,443,645	4.07%
2014	34,521,599	567,377,950	6.08%
2015	33,921,068	603,441,449	5.62%
2016	42,769,492	642,946,957	6.65%
2017	39,390,219	670,815,017	5.87%
2018, Projected	41,909,323	702,350,401	5.97%
AWWA Benchmark (Median Quartile, 2012)			2.20%

Debt Ratio	
(Total Liabilities/Total Assets)	
2012, Audited	21.6%
2013, Audited	19.3%
2014, Audited	16.3%
2015, Audited	16.0%
2016, Audited	14.0%
2017, Audited	11.7%
2018, Projected	10.1%
AWWA Industry Benchmark	34.0%

Million Gallons per Day of Water Delivered per Full Time Equivalent			
(Average MGD Delivered/Number of FTEs)			
Fiscal Year	MGD	FTEs	MGD per FTE
2012	83.0	113.0	0.73
2013	75.2	114.5	0.66
2014	78.7	114.5	0.69
2015	80.8	114.5	0.71
2016	86.3	116.0	0.74
2017	81.4	116.0	0.70
2018, Projected	81.1	116.0	0.70

BUDGET TERMINOLOGY

Glossary

AL-Action Level: the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must implement.

Asset Management: a management paradigm and a body of management practices that is applied to the entire portfolio of assets at all levels of the organization, seeking to minimize the total cost of acquiring, operating, maintaining and renewing the assets within an environment of limited resources; while continuously delivering the service level customers desire and regulators require, at an acceptable level of business risk to the organization.

Balanced Budget: a budget in which estimated revenues and other financing sources equal estimated expenditures.

Budget Message: a general discussion of the proposed budget in writing often referred to as the transmittal letter explaining any known forthcoming budgetary issues of the future and recommendations of how the Authority will handle those issues.

Capital Asset: assets with a useful life of more than a year and is not intended for resale in the regular course of operations, also known as fixed assets. Examples include: land and improvements, Computers, Equipment, Furniture and Fixtures, Machinery, Buildings, Infrastructure, vehicles, and intangibles.

Capital Expenditure: the use of funds to acquire or maintain long-term assets that are used in the operation of the organization over a multi-year period.

Comprehensive Annual Financial Report (CAFR): set of U.S. government financial statements comprising the financial report of the state, municipal or other governmental entity that complies with the accounting requirements promulgated by the GASB.

Contingency: money set aside to cover unexpected costs during the fiscal year.

Contract: an agreement entered into only by the CCMWA Board (Board) (or General Manager, Director of Operations, Director of Engineering or other authorized agent) on behalf of CCMWA with one or more parties for the doing of some specified act. The term "Contract" shall be synonymous with "Agreement."

Depreciation: a reduction in the value of an asset over its useful life.

Enterprise Fund: government owned fund that sells goods and services. They must abide by GAAP just like private companies.

Flow of Economic Resources Measurement Focus: measures all assets that are available to the entity, not only cash or soon to be cash assets. Both long-term assets and long-term liabilities are measured.

Full Accrual Basis of Accounting: recognizes financial transactions based upon when the event will impact the entity regardless of whether cash was received or spent.

Geographic Information System (GIS): a computerized mapping system that captures, stores, analyzes, manages, and presents data that is linked to location.

MCL- Maximum Contaminant Level: the highest level of contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG- Maximum Contaminant Level Goal: the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Modified Accrual Basis of Accounting: the method of accounting in which revenue is recognized when it becomes available and expenditures are recognized when the liability is incurred.

Operating Budget: authorized expenditures for on-going day-to-day services including, but not limited to, maintenance, supplies, materials and personnel.

PPB - parts per billion: or micrograms per liter (i.e. penny per \$10,000,000.00)

PPM - parts per million: or milligrams per liter (i.e. penny per \$10,000.00)

Proprietary Fund: in government, a business-like fund of a state or local government. An enterprise fund is a type of proprietary fund.

Purchase Order: an official document with a unique reference number issued by the CCMWA to a seller stipulating types, quantities, and agreed upon prices for products or services the seller will provide to the CCMWA.

Request for Proposal: a document that solicits proposal through the bidding process of goods or services to potential suppliers/contractors.

Single Enterprise Fund: a government owned fund that sells goods and services. They must abide by the same generally accepted accounting principles that private companies do.

Sole Source Request: a contract made after determination by the Board, or by the General Manager, if authorized, by this policy, that there is only one viable source for the required supply, service, or construction item.

Supervisory Control and Data Acquisition (SCADA): equipment and computer technology used to monitor and control water distribution.

Total Net Assets: total assets minus total liabilities.

Transmission System: network of pipelines and water tanks whereby potable water is distributed to CCMWA customers.

Treatment Plant: plant where raw water / source water is treated through various processes to potable water quality standards and pumped into CCMWA's transmission system.

TC+: Total Coliform Positive

TT-Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.

Acronyms

A

ACF	Apalachicola-Chattahoochee-Flint River Basin
ACH	Automated Clearing House
ACT	Alabama-Coosa-Tallapoosa River Basin
AR&R	Asset Renewal and Replacement
AWWA	American Water Works Association

B

BCP	Business Continuity Plan
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C

CAFR	Comprehensive Annual Financial Report
CIP	Capital Improvement Plan
CMP	Communication Management Plan

E

EPA	United States Environmental Protection Agency
EPD	Georgia's Environmental Protection Division

F

FASB	Financial Accounting Standards Board
FINRA	Financial Industry Regulatory Authority
FTE	Full Time Equivalent

G

GAC	Granular Activated Carbon
GAAP	Generally Accepted Accounting Principles
GAAS	Generally Accepted Auditing Standards
GASB	Governmental Accounting Standards Board
GEFA	Georgia Environmental Finance Authority

GFOA Governmental Finance Officers Association

GIS Geographic Information System

L

LGIP Local Government Investment Pool

M

MGD Million Gallons per Day

MSL Mean Sea Level

O

OCSA Official Code of Georgia Annotated

P

PCCP Pre-Stressed Concrete Cylinder Pipe

R

RFP Request for Proposal

S

SCADA Supervisory Control and Data Acquisition

SEC Security and Exchange Commission

W

WA Water Authority

WSA Water and Sewer Authority

WTP Water Treatment Plant