

2020

Adopted Budget

Cobb County-Marietta Water Authority

Marietta, GA

Adopted December 16, 2019

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BUDGET MESSAGE

The 2020 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 2020 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 2020. 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 review its needs annually 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.”

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. Under Allison Clements’ leadership of the Division, and with the collaboration of all other division leaders, the 2020 Budget continues to demonstrate the Authority’s commitment to stewardship in meeting its objectives.

Successful and sustainable financial management of a water utility requires vigilant attention to the day-to-day needs and issues affecting operations and maintenance, strict adherence to sound financial policies, and a “long view” approach to capital planning that prevents “rate shock,” periodic large rate increases needed primarily to address unplanned capital needs from infrastructure failure, regulatory changes or big shifts in the marketplace. The 2020 Operating and Capital Budget includes consideration that a year of higher water demands (such as 2019) is not a reliable predictor of higher demands in the future. It also contains planning to mitigate the significant reduction in water needs from CCMWA’s second largest customer beginning in 2020.

The 2020 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 adherence to a strategy to maintain system reliability, financial stability and organizational sustainability. The capital program continues our focus on a responsible plan for asset renewal that follows our policy of using accrued cash for all capital needs not driven by growth or regulatory changes.

The 2020 Budget includes the final 2% increase in the current 3-year rate program. This increase is slightly higher than the total Consumer Price Index (CPI) of 1.8%, and significantly less than the sector-specific CPI for Water and Sewerage Maintenance of 3.4% (October 2018 - October 2019). Through this modest wholesale rate increase, and following the detailed plan contained in this budget, the Authority will be able to excel in its mission “to provide sustainable and reliable drinking water that supports public health, public safety and the economic vitality of the region.”

Respectfully,

Glenn M. Page

Glenn M. Page, P.E.

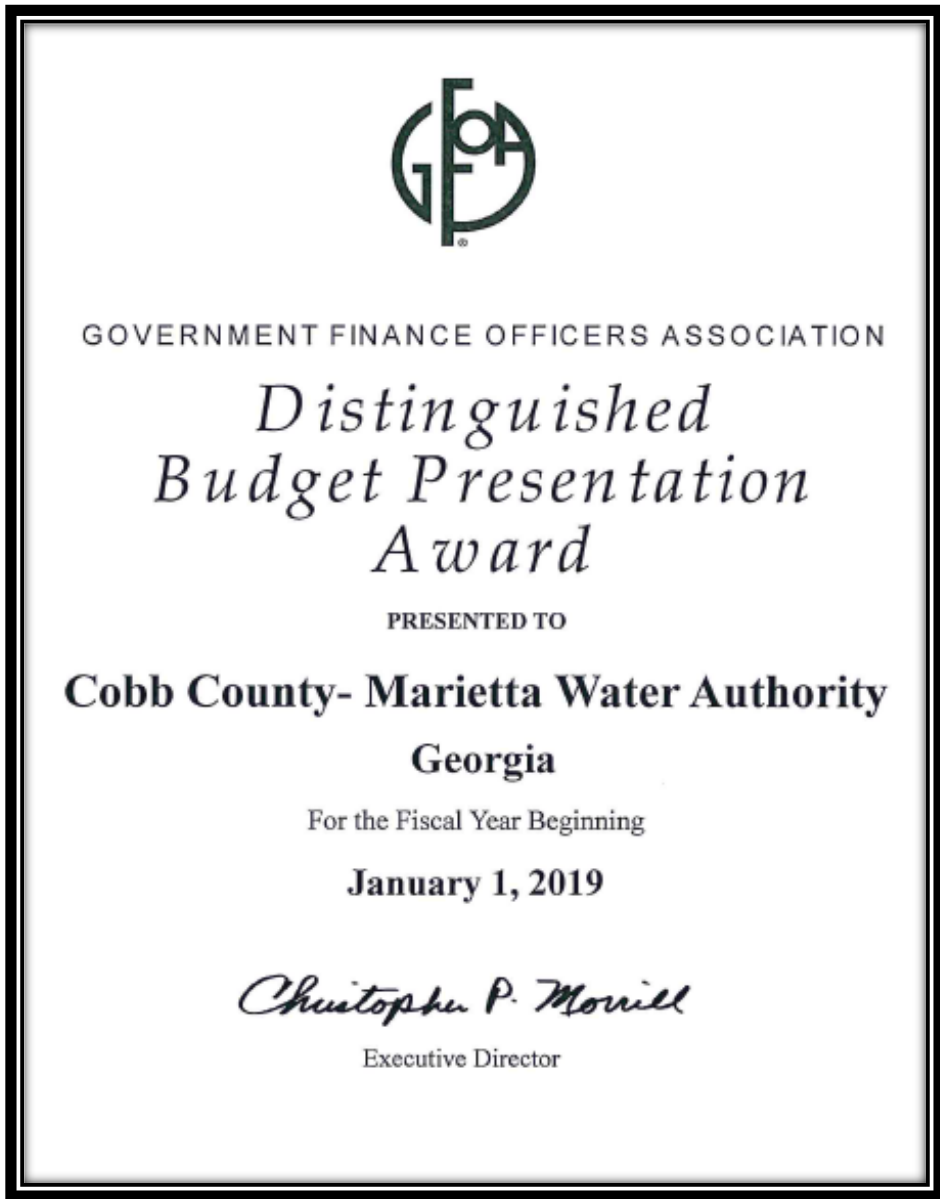
General Manager

Consolidated Budget – Fiscal Year 2020

	2019 Budget	2019 Projected Actual	Variance - Favorable (Unfavorable)	2020 Budget	Increase (Decrease) over 2019 Budget (\$)	Increase (Decrease) over 2019 Budget (%)
Operating Revenues	\$90,997,618	\$95,605,480	\$ 4,607,862	\$89,145,973	\$ (1,851,645)	-2.03%
Operating Expenses	49,787,243	48,169,940	1,617,302	49,679,994	(107,249)	-0.22%
Operating Income	41,210,375	47,435,540	6,225,164	39,465,979	(1,744,397)	-4.23%
Other Income	2,940,320	7,414,964	4,474,644	3,169,646	229,326	7.80%
Other Expenses	2,789,170	3,497,474	(708,304)	1,802,392	(986,778)	-35.38%
Extraordinary Items	150,000	46,160	103,840	150,000	-	0.00%
Net Income	\$41,211,525	\$51,306,870	\$10,095,345	\$40,683,233	\$ (528,292)	-1.28%
	2019 Budget	2019 Projected Actual	Variance - Favorable (Unfavorable)	2020 Budget	Increase (Decrease) over 2019 Budget (\$)	Increase (Decrease) over 2019 Budget (%)
Pipelines	\$19,584,000	\$10,147,147	\$ 9,436,853	\$19,528,000	\$ (56,000)	-0.29%
Water Treatment Plants	33,835,000	25,148,159	8,686,841	30,385,000	(3,450,000)	-10.20%
Water Storage Tanks	3,000,000	110,775	2,889,225	2,603,320	(396,680)	-13.22%
Asset Renewal & Replacement	9,896,298	5,772,330	4,123,968	13,313,582	3,417,284	34.53%
Total Capital Improvements	66,315,298	41,178,411	25,136,887	65,829,902	(485,396)	-0.73%
Reservation for DOT Projects	1,000,000	788	999,212	1,500,000	500,000	50.00%
Contingency	2,500,000	1,181,358	1,318,642	2,000,000	(500,000)	-20.00%
Total Capital Expenditures	\$69,815,298	\$42,360,557	\$27,454,741	\$69,329,902	\$ (485,396)	-0.70%

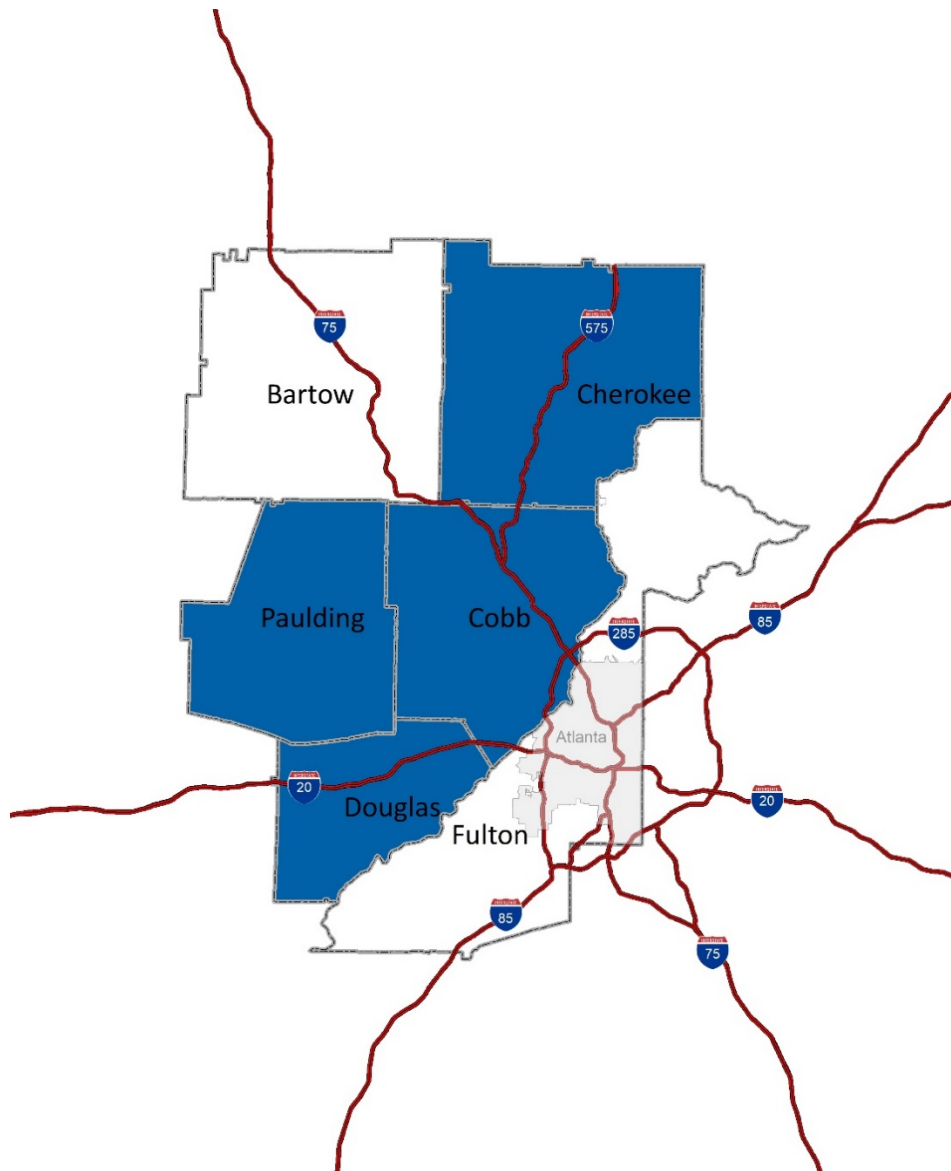
Distinguished Budget Presentation Award

Cobb County-Marietta Water Authority was presented the Distinguished Budget Presentation Award by the Government Finance Officers Association (GFOA) for the Fiscal Year 2019 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 7th year of submitting a budget document to GFOA for consideration and receiving the Distinguished Budget Presentation Award. The 2019 budget document also received a special recognition for Performance Measures, marking the 1st year that CCMWA has received outstanding reviewer scores for providing defined goals and objectives for each division and using output measures to track progress toward accomplishing our mission.



GENERAL INFORMATION

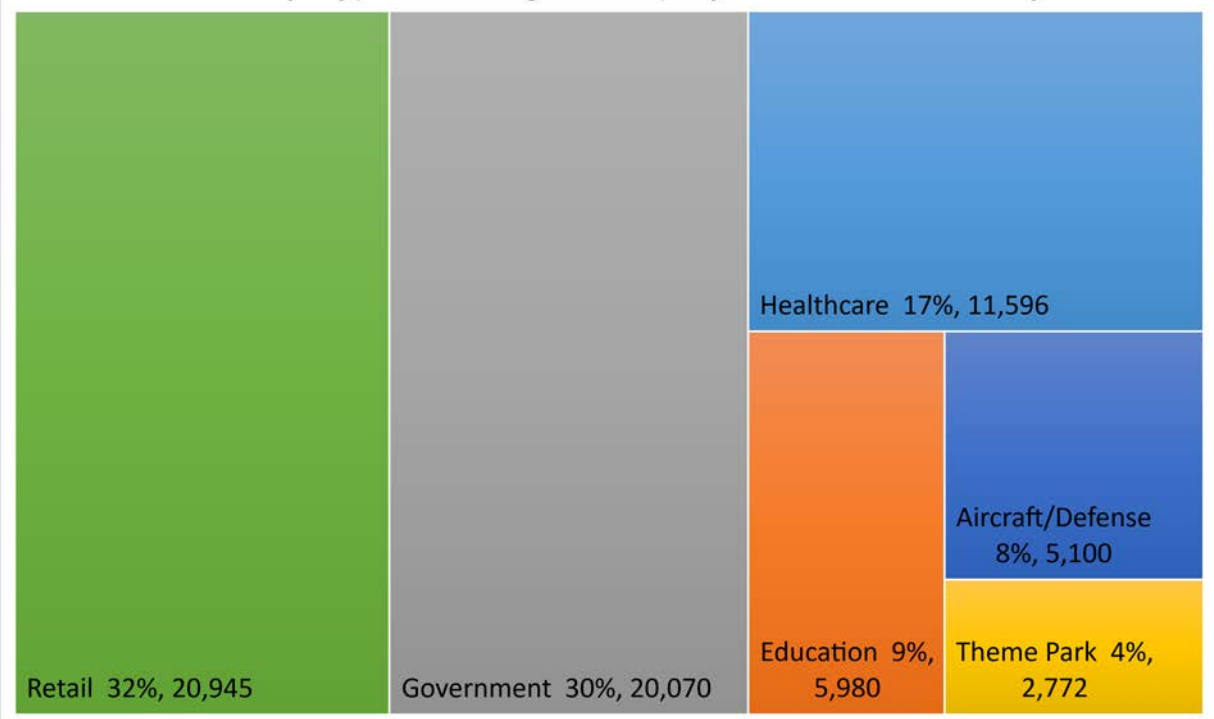
Cobb County-Marietta Water Authority (CCMWA) was created in 1951 by an act of the General Assembly of the State of Georgia as a political subdivision of the state with the sole function of supplying drinking water to wholesale customers. CCMWA serves wholesale customers north of Metro Atlanta, Georgia 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 773,930 according to Woods & Poole Economics 2018 Data Pamphlet and is the third most-populous county in Georgia.



Percent of 2019 Water Sales by Volume

Customer	% of Sales	Location
Cobb County Water System	67.59%	Cobb County, GA
Paulding County	14.48%	Paulding County, GA
City of Marietta	8.71%	Cobb County, GA
City of Smyrna	4.70%	Cobb County, GA
City of Woodstock	1.64%	Cherokee County, GA
Lockheed Martin	1.05%	Cobb County, GA
City of Austell	0.99%	Cobb County, GA
City of Powder Springs	0.76%	Cobb County, GA
City of Mountain Park	0.05%	Fulton County, GA
Cherokee County Water & Sewer Authority	0.02%	Cherokee County, GA
Douglasville Douglas County Water & Sewer	0.00%	Douglas County, GA
Fulton County	0.00%	Fulton County, GA

Industry Types of 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*

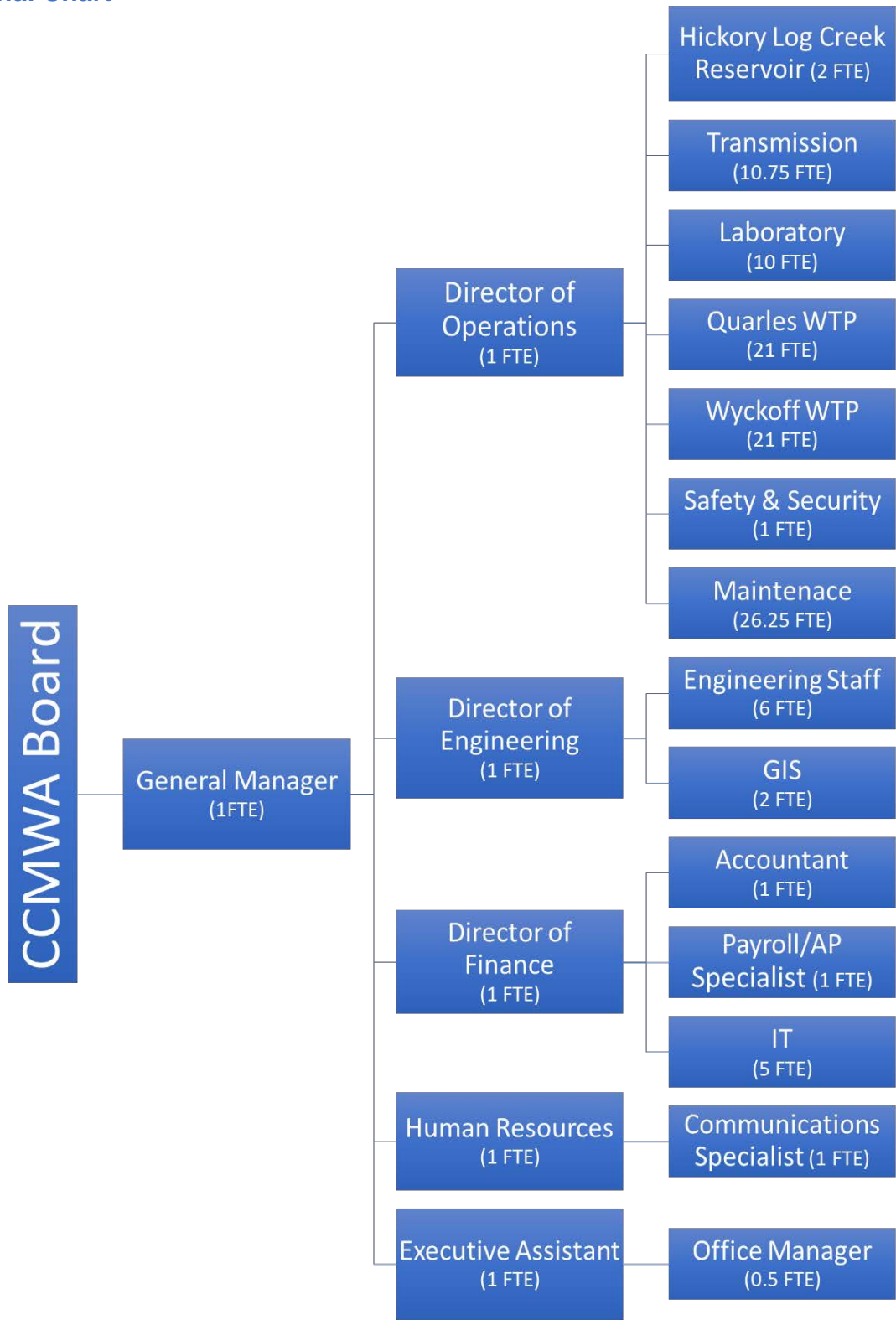


George Kaffezakis
Director of Engineering



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 86 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 2020 budget year and beyond are:

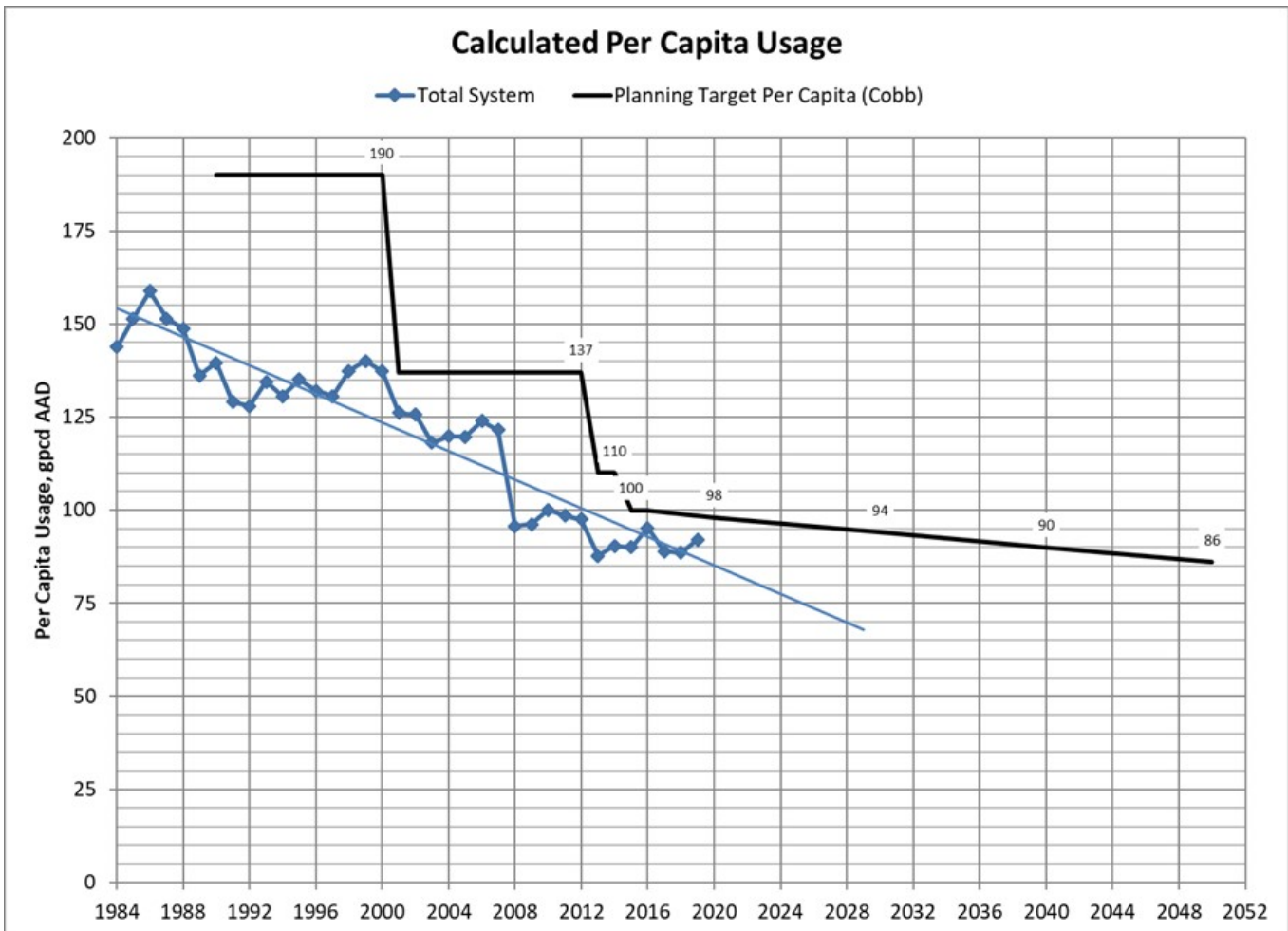
- Per capita demand changes
- Customer-driven changes
- Weather conditions
- Workforce continuity and development
- Aging infrastructure

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.

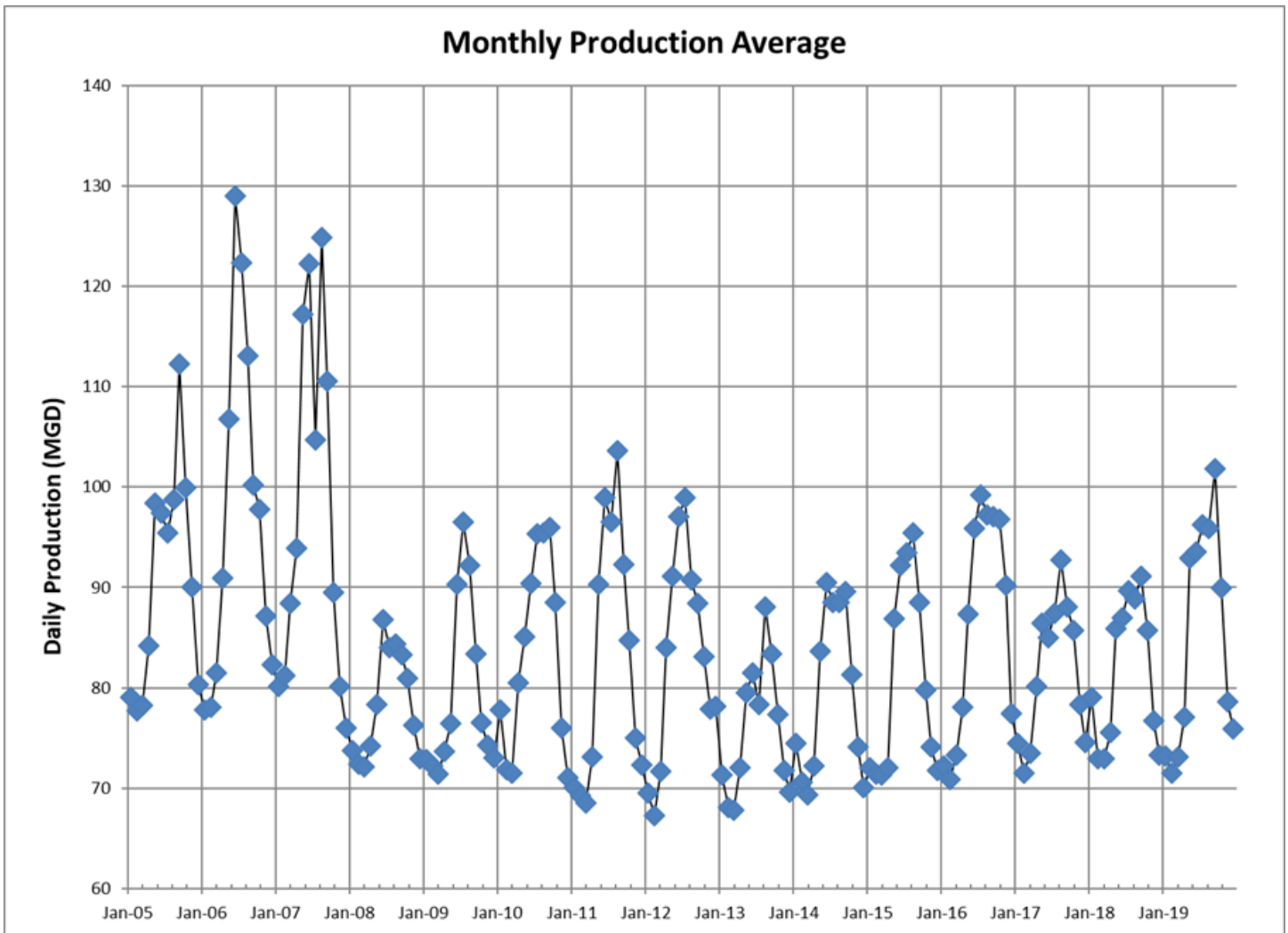
Per Capita Demand

The population of Cobb County, the largest area served by CCMWA, has grown by more than 84,000 residents since 2010. The Atlanta Regional Commission estimates Cobb County’s population grew by 8,100 people between 2018 and 2019 and the county is ranked third in the 10-county Atlanta region for population growth between 2010 and 2019. 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 nearly 125 gallons per capita per day to approximately 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, manufacturers develop more water efficient products and processes, and plumbing codes and water pricing structures promote less water use.

The Calculated Per Capita Usage graph shows total system demand from 1984 to 2019, 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 98 gallons per capita per day for the 2020 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 experienced only two months in the last ten years (July 2011 & September 2019) with average production over 100 million gallons per day, both due to hot, dry weather conditions. Water efficiency and conservation efforts made over the last decade are now ingrained in water use habits of consumers and are expected to continue into future years. As a result, there are no capital improvements included 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

In June 2019, the City of Powder Springs sold its water system to Cobb County Water System, thus reducing Cobb County-Marietta Water Authority's customer count by one. As the wholesale water provider to Cobb County Water System, the sale did not impact CCMWA's projected water demands, but resulted in Cobb County Water System representing a larger percentage of water sales in 2019 compared to prior years.

CCMWA does anticipate a reduction in water demand beginning in 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, along with a related water treatment facility, transmission pipelines, and pump stations. This project is scheduled for completion in early 2020. CCMWA expects a slight reduction in water purchases when Paulding County's new water treatment facility is completed in the second quarter of 2020, with a gradual downward step in water purchases over the remainder of the 2020 fiscal year, followed by a significant reduction in the amount of water purchased in the 2021 fiscal year. CCMWA has included this reduction in its water sales projections and has removed future capital projects in the Capital Improvement Plan related solely to delivering water to Paulding County.

During 2019, CCMWA negotiated and finalized a new contract with Paulding County in response to Paulding County's change from a sole-source to a non-sole-source customer. The contract provides Paulding County flexibility for one year after their new water treatment facility becomes operational. This interim period will allow Paulding County to estimate the amount of water needed from CCMWA before transitioning to the non-sole-source rate structure. CCMWA's demand forecast for 2020 assumes that Paulding County will continue purchasing water at their current out-of-county volumetric rate during 2020 and move to the non-sole-source rate structure in mid-2021.

The terms of Paulding County's contract are based on the non-sole-source rate structure developed in 2017 and first used with Douglasville-Douglas County Water and Sewer Authority. Non-sole-source customers are those that operate their own water treatment and transmission system and purchase water from CCMWA on an as-needed, secondary basis. The contract terms include a base infrastructure charge and a variable delivery charge, designed to recognize and compensate CCMWA for investments in infrastructure to serve a non-sole-source customer. The base infrastructure charge is a uniform monthly charge based on the amount of water (referred to as the reserved daily allocation) the customer has requested to be made available every month. When water is purchased from CCMWA, the customer pays a variable delivery charge, which is a volumetric charge for actual water purchases. The effective total rate, between the base infrastructure charge and the variable delivery charge, is equal to CCMWA's current in-county sole-source rate.

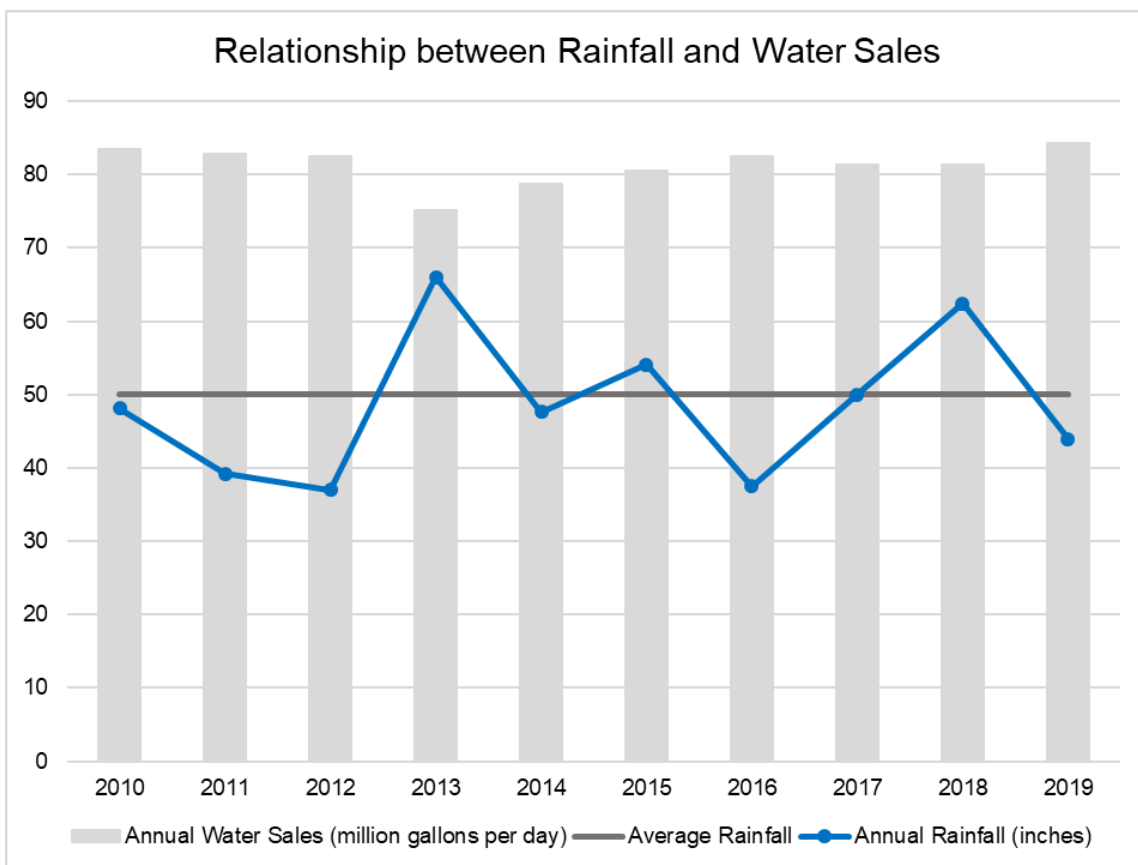
CCMWA will use this type of contract structure for future contract negotiations with non-sole-source customers, as customer contracts expire or become eligible for renegotiation. By recognizing infrastructure investments

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.

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. On October 18, 2019, the Georgia Environmental Protection District ([EPD](#)) declared a Level 1 drought response for CCMWA’s service area in response to the federal government’s U.S. Drought Monitor indicating a flash drought had affected the entire state with conditions ranging from abnormally dry to extreme drought. 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 experienced below average rainfall and warm temperatures throughout the summer and fall of 2019. The Level 1 drought response was subsequently lifted on December 27, 2019 after conditions improved over much of the affected area.

CCMWA’s service area is projected to receive approximately 44 inches of rainfall in 2019, however, the average annual rainfall of CCMWA’s service area is 50 inches. When annual rainfall is below average, higher demand for water occurs. This relationship can be seen in the graph below, where increased rainfall in 2013 drove water sales below 75 MGD and below average rainfall in 2019 drove water sales up above 84 MGD.



Temperature and timing of rainfall can also impact water sales, with above or below average rainfall in warmer months having a greater impact than at other times of year. Water sales for 2019 are projected to be 84.3 MGD and exceed the budget projection of 80.9 MGD due to below average rainfall occurring during the warmest months of the year. Water sales for 2020 are projected to decrease to 77.7 MGD, primarily due to reduced water purchases from Paulding County. However, unexpected weather conditions could still 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. Despite an increased number of retirements in recent years, 31% of the current workforce will reach normal retirement age in the next 10 years. These statistics highlight the need for ongoing 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 2020 in the following ways:

- Employees in supervisory roles and those interested in supervisory roles in the future will be offered training through a series of skill development workshops and the Carl Vinson Management Development Program.
- Employees will be offered training on the topics of verbal and non-verbal communication, including the development of internal interview skills, as part of an ongoing career conversations communications series.
- Developing employees will be paired with leaders as part of an ongoing mentoring program.

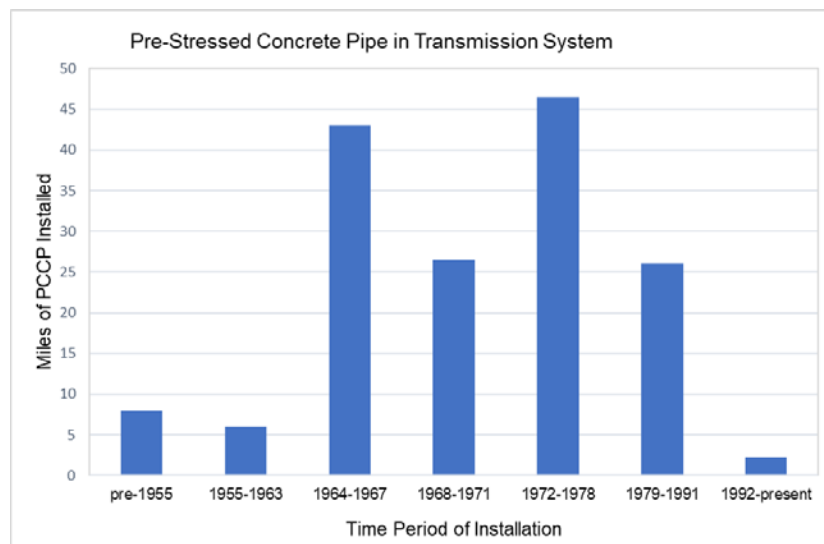
The 2019 communications series focused on written and verbal communication skills. Employees that participated in this training ended the course by giving a work-related presentation to a group of peers and supervisors. Since it was first offered in 2019, 17 employees across all levels of the organization have completed the course to practice their written and verbal communication.



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 continue to 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, which replaced 5,600 feet of PCCP with 36" ductile iron pipe along Mableton Parkway, was completed during 2019. Five projects from this program will be under design or in construction during 2020 with a combined length of 14.5 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.

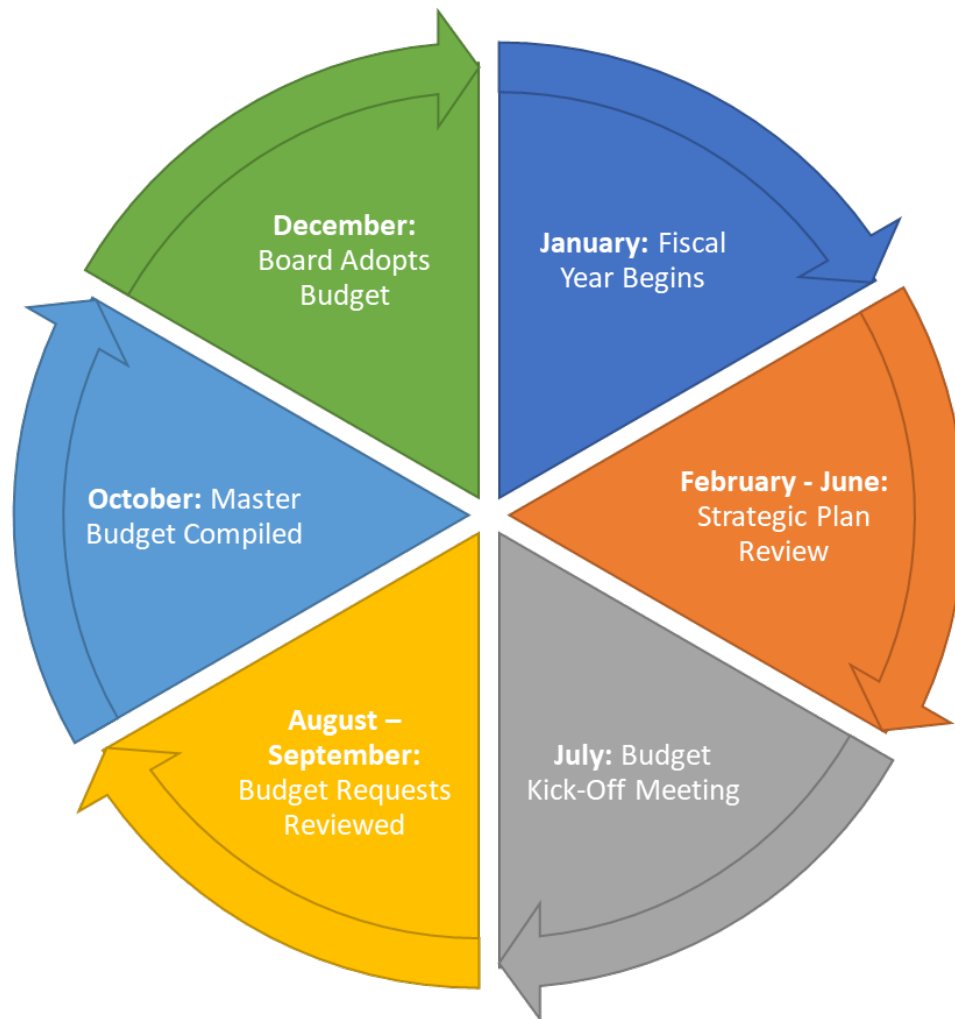
To facilitate the Capital Improvement Program (CIP), the CCMWA Board has implemented a plan for stabilized rate increases that span a set number of years instead of assessing rate increases based on the needs of a single year. The current rate plan was set in 2018 as a 3-year plan with annual 2% increases which would be reviewed annually by the Board. The rate plan was reviewed during the planning and development of the 2020-2024 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 2020 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.

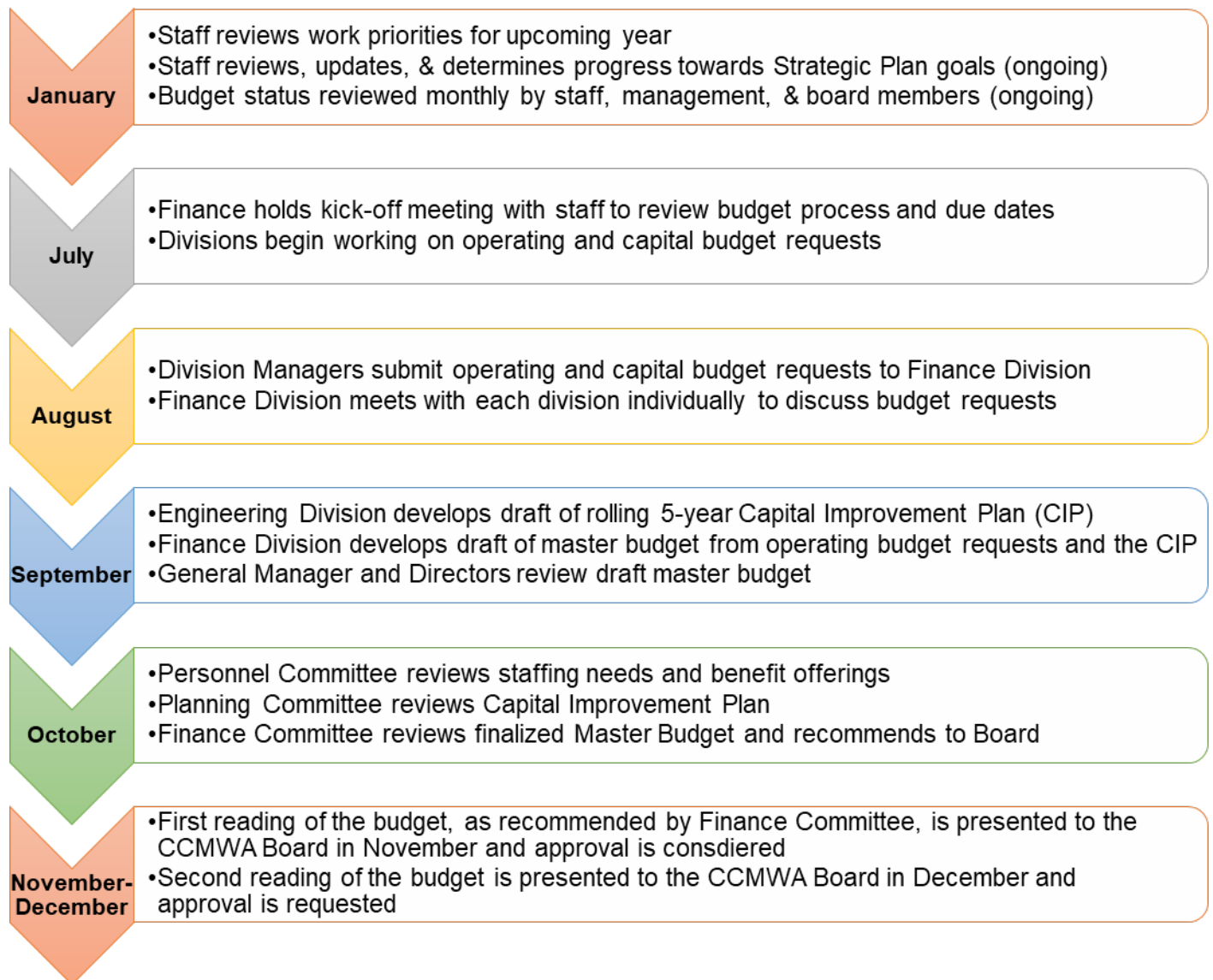
Budget Process

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.

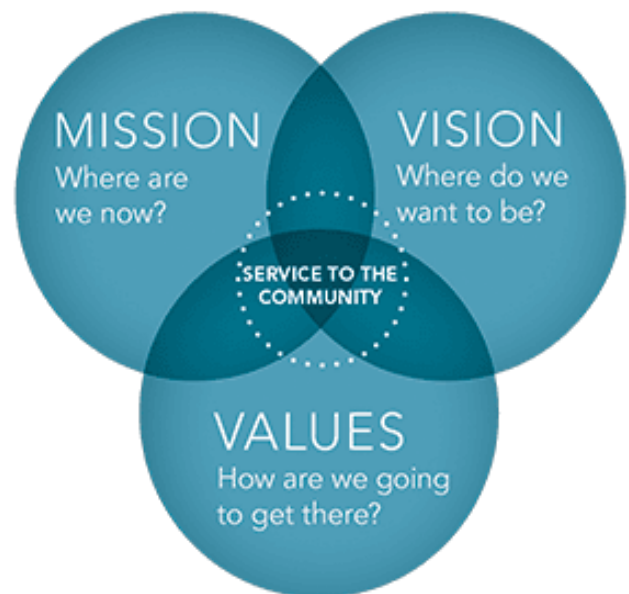


Strategic Plan Implementation

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 2019, the Information Management team worked to develop policies and procedures related to data management, the Water Quality team developed operating procedures for responding to customer water quality concerns, and the Preparedness/Security team worked with an outside consultant to develop a risk and resiliency assessment required by the U.S. Environmental Protection Agency (EPA).



In 2020, the Safety Culture team will work to improve the Safety Manual and implement a formal incident review panel, the Water Quality team will work to refine the Crisis Communication plan by ongoing conversations with our customers, and the Preparedness/Security team will finalize the risk and resiliency assessment required by the U.S. Environmental Protection

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.

2019 Entity-Wide Financial and Non-Financial Goals

Review of 2019 Short Term Financial Goals

- The Authority will plan for, develop, and adhere to a balanced budget for calendar year 2019. **Completed**
- 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. **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 90 days of budgeted operating expenses throughout 2019. **Completed**

Review of 2019 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 2019 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 updated and used for projections through 2049**
- 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 2019 and is planned to continue for 2020.**

Review of 2019 Short-Term Non-Financial Goals

- The Authority will continue to use drone technology to enhance GIS records related to easements and buried assets. *Completed*
- The Authority will evaluate its water treatment strategy to optimize for lead and copper corrosion control. *Completed*
- 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. *In progress – on schedule for completion in January 2020*
- 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 internal training programs focused on computer skills, communication skills, and supervisory training. *Completed*

Review of 2019 Long-Term Non-Financial Goals

- CCMWA will meet or exceed all drinking water quality regulations, including monitoring and reporting requirements. *Both water treatment plants received the Platinum Award from GAWP in 2019 for exceeding 10 consecutive years in meeting this goal.*
- CCMWA will continuously prepare for future regulatory changes through internal evaluation and participation in research opportunities. *Through continuous participation as a subscriber to the Water Research Foundation since the 1980s, and through direct sponsorship of current research projects conducted at our water treatment plants by graduate students at the Georgia Institute of Technology, CCMWA actively met this goal in 2019. In addition, the lead and copper corrosion evaluation mentioned above serves to meet this goal as well.*
- CCMWA will secure sufficient water resources for current and future customers of the Authority. *Active litigation in one federal court case (CCMWA v. U.S. Army Corps of Engineers) is hoped to meet this goal, as well an ongoing Reallocation Study for Allatoona Lake ordered by a federal judge in a separate case with CCMWA as a plaintiff. In addition, participation (including a Board seat) in the recently chartered National Water Supply Alliance is allowing direct input on the National Water Supply Rule currently proposed by the United States Army Corps of Engineers.*
- CCMWA will gain United States Army Corps of Engineers approval for the accounting methodology proposed for the use of releases from Hickory Log Creek Reservoir and place the project into useful service. *Progress was made through conditions of a mediated stay agreement in CCMWA v. U.S. Army Corps of Engineers on this issue. CCMWA's proposed accounting methodology is one of the alternatives being considered in the ongoing Allatoona Lake Reallocation Study, anticipated to be completed in 2021. In 2019, a new Joint Project Agreement was executed between CCMWA and the City of Canton for the Hickory Log Creek Project which clarifies CCMWA's ownership of*

water rights acknowledged by the State of Georgia needed to strengthen our argument to use reservoir releases as intended.

- 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. *This goal is included in the proposed accounting methodology mentioned previously.*
- The Authority will gain additional allocation of water from Allatoona Lake sufficient to meet the needs of future Authority customers. *The draft Allatoona Lake Reallocation Study includes a recommendation to reallocate enough water for CCMWA's use through 2050.*
- 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. *A recent report from the Special Master appointed by the U.S. Supreme Court recommends denial of the State of Florida's request for equitable apportionment of the Chattahoochee River which would limit future water use by the State of Georgia, the metropolitan region, and CCMWA. A final decision by the Supreme Court is expected in 2021.*
- The Authority will develop a sustainable workforce of qualified and capable operators, technicians, scientists, engineers, managers, and leaders. *CCMWA's broad training opportunities available to all employees include in-house technical and leadership training, certification-related schools, mentorship, conference attendance, and formal post-secondary education, including advanced degrees. These opportunities were accessed by CCMWA employees in 2019, leading to an increased number of internal job candidates being selected for higher positions.*



Staff participating in The Great Lake Allatoona Clean Up



CCMWA volunteers to keep the shoreline of Lake Allatoona clean

2020 Entity-Wide Financial and Non-Financial Goals

2020 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.

2020 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.

2020 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 complete 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 complete a comprehensive Emergency Response Plan in 2020 in accordance with requirements in the 2018 America’s Water Infrastructure Act.
- 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.

2020 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 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 develop a sustainable workforce of qualified and capable operators, technicians, scientists, engineers, managers, and leaders.

EXECUTIVE SUMMARY

The 2020 annual operating budget for Cobb County-Marietta Water Authority is a balanced budget with operating revenues exceeding operating expenses. Operating income is expected to decrease by \$1.7 million in 2020 due to a 2% decrease in anticipated operating revenues. Projected net income for 2020 is \$40.7 million, a 1.3% decrease over the 2019 budget. Actual net income for 2019 is expected to be \$51.3 million, \$10 million higher than expected, due to increased water sales revenue driven by weather conditions with relatively level operating costs.

	2019 Budget	2019 Projected Actual	Variance - Favorable (Unfavorable)	2020 Budget	Increase (Decrease) over 2019 Budget (\$)	Increase (Decrease) over 2019 Budget (%)
Operating Revenues	\$90,997,618	\$95,605,480	\$ 4,607,862	\$89,145,973	\$ (1,851,645)	-2.03%
Operating Expenses	49,787,243	48,169,940	1,617,302	49,679,994	(107,249)	-0.22%
Operating Income	41,210,375	47,435,540	6,225,164	39,465,979	(1,744,397)	-4.23%
Other Income	2,940,320	7,414,964	4,474,644	3,169,646	229,326	7.80%
Other Expenses	2,789,170	3,497,474	(708,304)	1,802,392	(986,778)	-35.38%
Extraordinary Items	150,000	46,160	103,840	150,000	-	0.00%
Net Income	\$41,211,525	\$51,306,870	\$10,095,345	\$40,683,233	\$ (528,292)	-1.28%

The total 2020 capital budget is \$69.3 million, which includes \$52.5 million in capital improvements, \$13.3 million in asset renewal and replacement projects, a \$1.5 million reservation for Department of Transportation (DOT) required projects, and a \$2 million contingency. The overall capital budget for 2020 less than 1% different from the 2019 capital budget due to project delays during the year that pushed spending into the next budget year.

	2019 Budget	2019 Projected Actual	Variance - Favorable (Unfavorable)	2020 Budget	Increase (Decrease) over 2019 Budget (\$)	Increase (Decrease) over 2019 Budget (%)
Pipelines	\$19,584,000	\$10,147,147	\$ 9,436,853	\$19,528,000	\$ (56,000)	-0.29%
Water Treatment Plants	33,835,000	25,148,159	8,686,841	30,385,000	(3,450,000)	-10.20%
Water Storage Tanks	3,000,000	110,775	2,889,225	2,603,320	(396,680)	-13.22%
Asset Renewal & Replacement	9,896,298	5,772,330	4,123,968	13,313,582	3,417,284	34.53%
Total Capital Improvements	66,315,298	41,178,411	25,136,887	65,829,902	(485,396)	-0.73%
Reservation for DOT Projects	1,000,000	788	999,212	1,500,000	500,000	50.00%
Contingency	2,500,000	1,181,358	1,318,642	2,000,000	(500,000)	-20.00%
Total Capital Expenditures	\$69,815,298	\$42,360,557	\$27,454,741	\$69,329,902	\$ (485,396)	-0.70%

Summary of Factors Influencing the 2020 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 2020, which is the third year of the current three-year rate program which began in 2018.
- In-county customer rate: \$3.06; out-of-county customer rate: \$3.37
- Water sales estimated at 77.7 MGD
- Operating expenses for 2020 expected to mirror 2019 budgeted operating expenses with no major changes.
- 4% average allocation for merit-based salary increases, based on the midpoint of each positions' salary grade.
- Capital budget totaling \$69.3 million for 2020, 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 (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 and cannot be projected.

	2016 Audited	2017 Audited	2018 Audited	2019 Budget	2019 Projected	2020 Budget
Water Sales	\$89,354,831	\$86,534,937	\$88,956,343	\$89,484,990	\$93,538,313	\$87,601,689
Base Charges	-	-	1,445,400	1,472,628	1,472,628	1,502,784
Summer Surcharges	261,333	2,186	32,359	-	551,289	-
Water Testing	39,300	45,100	44,150	40,000	43,250	41,500
<i>Total Operating Revenue</i>	<i>\$89,655,464</i>	<i>\$86,582,223</i>	<i>\$90,478,252</i>	<i>\$90,997,618</i>	<i>\$95,605,480</i>	<i>\$89,145,973</i>
% of Total Operating Revenue	100%	100%	100%	100%	100%	100%
Gallons Sold (in millions)	31,500	29,613	29,842	29,533	30,751	28,435
MGD (average)	86.3	81.4	81.3	80.9	84.3	77.7

Water sales revenue for 2019 is projected to be \$93.5 million with demand of 84.3 MGD compared to a budget of \$89.5 million with water demand of 80.9 MGD. Base charge revenue is projected to be \$1.5 million in 2019 and meet the budget expectation. Summer surcharges in the months of May through September provided \$551,289 in unbudgeted revenue for 2019. Water testing revenue for 2019 is projected to be \$43,250 compared to a budget of \$40,000. The 2019 budget assumed that 800 billable samples would be processed by the CCMWA laboratory; however, the laboratory is projected to process 865 samples due to increased sampling requests from customers.

Operating revenue for 2020 is forecasted at \$89.1 million, a 2% decrease over the 2019 budget. This forecast assumes \$87.6 million in revenue from water sales, \$1.5 million from base charges, and \$41,500 from water testing. The forecast for water sales revenue assumes 77.7 MGD in water sales, with 90% of water sales to in-county customers at \$3.06 per thousand gallons and 10% of sales to out-of-county customers at \$3.37 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 830 billable samples, a 3.8% increase over the 2019 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 CCMWA's 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. In 2019, depreciation expense is expected to account for 40.4% of the operating expense budget, salaries and benefits for 25.2%, electricity and natural gas for 11.7%, repairs and maintenance for 6.3%, and water treatment chemicals for 5.7% of operating expenses. These proportions are in line with historical trends, with a slight increase for electricity and natural gas, chemicals, and repair and maintenance costs due to increased water sales and equipment maintenance.

Operating Expenses by Type

	<u>2016 Audited</u>	<u>2017 Audited</u>	<u>2018 Audited</u>	<u>2019 Budget</u>	<u>2019 Projected</u>	<u>2020 Budget</u>
Depreciation	\$ 20,126,666	\$ 20,976,444	\$ 20,820,906	\$ 19,500,000	\$ 19,439,143	\$ 19,500,000
Salaries, Benefits, & Pension	11,277,715	11,305,408	12,500,348	12,733,156	12,157,487	12,921,060
Electricity & Natural Gas	5,441,784	5,023,004	5,272,921	5,850,900	5,636,624	5,543,575
Repairs & Maintenance	2,365,081	2,441,221	2,766,505	2,999,582	3,039,265	3,410,174
Chemicals	2,136,214	2,473,835	2,437,846	2,772,950	2,767,460	2,388,250
Research & Development	1,413,167	905,015	939,966	1,226,000	1,185,354	1,380,800
Residuals Management	572,174	510,543	664,929	830,000	830,000	800,000
Information Technology	493,245	502,242	542,456	769,625	698,622	916,473
General Insurance	552,911	562,006	513,738	604,700	539,140	574,300
Miscellaneous	1,845,211	1,394,117	2,504,458	2,500,330	1,876,844	2,245,363
	<u>\$ 46,224,169</u>	<u>\$ 46,093,835</u>	<u>\$ 48,964,073</u>	<u>\$ 49,787,243</u>	<u>\$ 48,169,940</u>	<u>\$ 49,679,994</u>

Operating Expenses by Percent of Total

	<u>2016 Audited</u>	<u>2017 Audited</u>	<u>2018 Audited</u>	<u>2019 Budget</u>	<u>2019 Projected</u>	<u>2020 Budget</u>
Depreciation	43.5%	45.5%	42.5%	39.2%	40.4%	39.3%
Salaries, Benefits, & Pension	24.4%	24.5%	25.5%	25.6%	25.2%	26.0%
Electricity & Natural Gas	11.8%	10.9%	10.8%	11.8%	11.7%	11.2%
Repairs & Maintenance	5.1%	5.3%	5.7%	6.0%	6.3%	6.9%
Chemicals	4.6%	5.4%	5.0%	5.6%	5.7%	4.8%
Research & Development	3.1%	2.0%	1.9%	2.5%	2.5%	2.8%
Residuals Management	1.2%	1.1%	1.4%	1.7%	1.7%	1.6%
Information Technology	1.1%	1.1%	1.1%	1.5%	1.5%	1.8%
General Insurance	1.2%	1.2%	1.0%	1.2%	1.1%	1.2%
Miscellaneous	4.0%	3.0%	5.1%	5.0%	3.9%	4.5%
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The 2020 budget anticipates depreciation expense of \$19.5 million, in line with the 2019 budget estimate. No major changes are anticipated to the depreciation schedule in 2020, because no capital projects will be completed until the second half of the year.

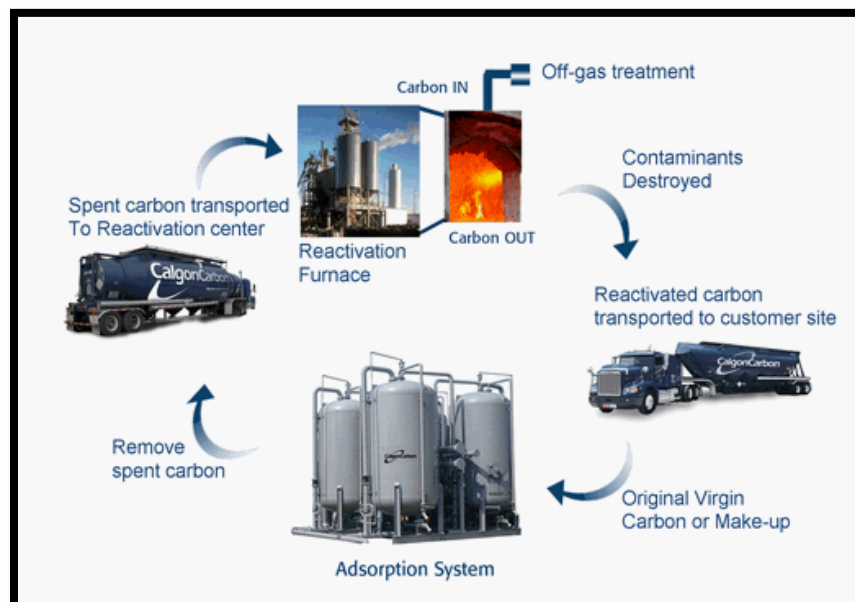
The budgets for salaries, benefits, and pension expenses are estimated to increase by only 1.5% in 2020 due to positions vacated by retirements being filled at lower salaries. Each division's salaries, overtime, and payroll tax expenses were estimated based on the assumption that all full-time positions will be filled for the entire year. The budgets for salaries, overtime, and payroll taxes also include an allocation for merit increases of 4.0% of the midpoint of each position's salary grade. The overall budget for employee benefits is expected to increase by

2.5% in 2020 despite a 4.9% increase in premiums due to positions vacated by retirements being filled by employees electing single coverage plans instead of family plans chosen by longer tenured employees. Pension expense for 2020 is estimated to increase by 1.0% and is budgeted as a percentage of salaries expense.

The budget for electricity and natural gas expense is expected to decrease by 5.5% in 2020 due to lower projected water demand. Actual electricity and natural gas expenses are projected to total \$5.6 million for 2019, compared to a budget of \$5.9 million, and are estimated to total \$5.5 million in 2020.

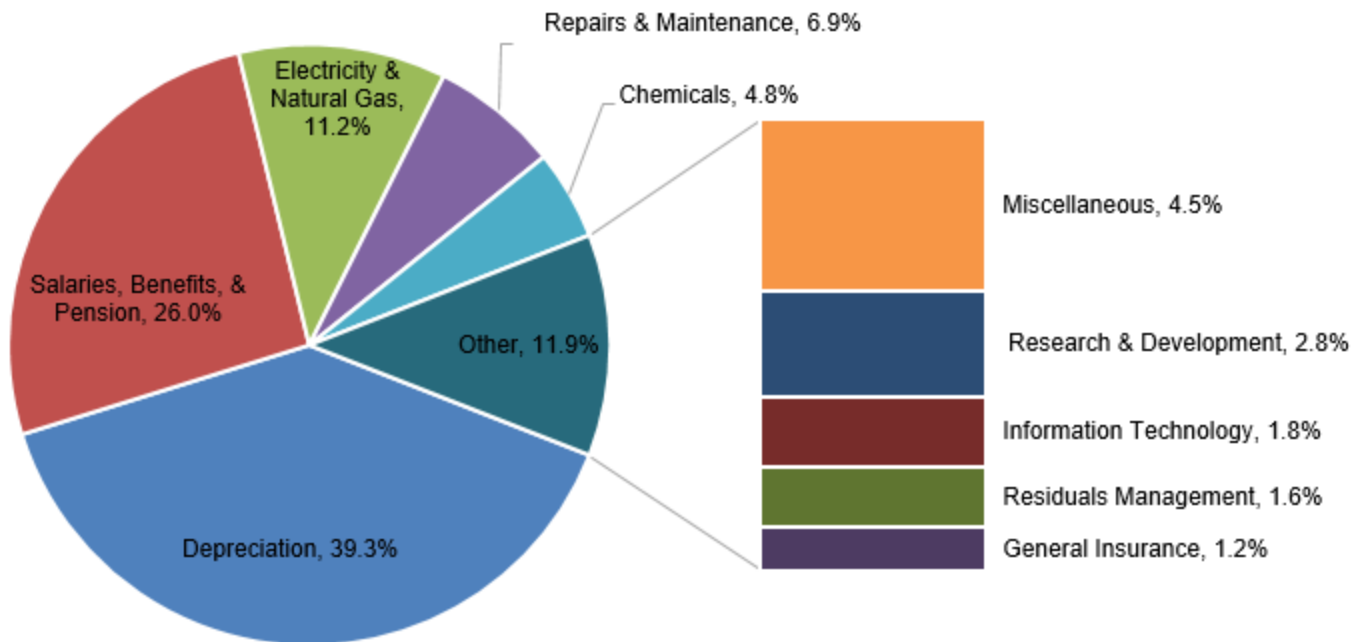
Repair and maintenance expenses include costs related to the maintenance of general equipment, electrical systems, SCADA system, security systems, vehicles, asset coating, pipelines, meters, water storage tanks, and easement clearing. Estimated repairs and maintenance expenses for 2019 are projected to total \$3 million and meet the budget expectation. The total budget for these expenses is expected to increase by 12% in 2020 to \$3.4 million. This increase is mainly due to an increase in meter maintenance and repair costs, to allow for the removal of unused water meters due to customer changes 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 2020 is expected to decrease by 16.1% over the 2019 budget to \$2.4 million due to lower projected water demand. Actual chemicals expense in 2019 is projected to total \$2.7 million, meeting the budget expectation. During 2019, water treatment chemicals expense included the reactivation of the media in 13 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. The 2020 water treatment chemicals budget includes the reactivation of the media in 14 GAC vessels.



Granular Activated Carbon reactivation process

2020 Budgeted Operating Expenses by Type



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 2019 is projected to be \$7.4 million, which will exceed the budget expectation of \$2.9 million by \$4.5 million. Rising interest rates in late 2018 and early 2019 caused interest income to outpace expectations and unrealized gains on the market value of investments are estimated to total \$2.3 million in 2019 due to strong market conditions. Both items led to higher than anticipated other income for the year. In 2020, other income is forecasted to total \$3.2 million, including a 15.3% increase in anticipated interest income.

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 one outstanding debt issuance that contribute to expenses in this category.

Other expenses for 2019 are expected to total \$3.5 million, exceeding the budget expectation of \$2.8 million due to expenses associated with the Series 2009 bond defeasance. This transaction was not planned for 2019 or included in the budget; however, interest rates provided an opportunity to recognize savings on the repayment of outstanding debt. Other expenses for 2020 are expected to decrease by 35% due to this prepayment of interest on the Series 2009 bonds.

Capital Improvement Plan Assumptions

The 2020-2024 Capital Improvement Plan is focused on sustaining the ability to provide our customers' expected level of service by maintaining and reinvesting in CCMWA's infrastructure. The projects outlined in the 5-year CIP are aged pipe replacements, projects related to the replacement, rehabilitation, or reliability of plant assets and equipment, or regulatory improvements. In 2020, capital project spending is budgeted at \$69.3 million and the overall value of the 5-year CIP is estimated to be \$304.4 million.

	2019 Budget	2019 Projected Actual	Variance - Favorable (Unfavorable)	2020 Budget	Increase (Decrease) over 2019 Budget (\$)	Increase (Decrease) over 2019 Budget (%)
Pipelines	\$19,584,000	\$10,147,147	\$ 9,436,853	\$19,528,000	\$ (56,000)	-0.29%
Water Treatment Plants	33,835,000	25,148,159	8,686,841	30,385,000	(3,450,000)	-10.20%
Water Storage Tanks	3,000,000	110,775	2,889,225	2,603,320	(396,680)	-13.22%
Asset Renewal & Replacement	9,896,298	5,772,330	4,123,968	13,313,582	3,417,284	34.53%
Total Capital Improvements	66,315,298	41,178,411	25,136,887	65,829,902	(485,396)	-0.73%
Reservation for DOT Projects	1,000,000	788	999,212	1,500,000	500,000	50.00%
Contingency	2,500,000	1,181,358	1,318,642	2,000,000	(500,000)	-20.00%
Total Capital Expenditures	\$69,815,298	\$42,360,557	\$27,454,741	\$69,329,902	\$ (485,396)	-0.70%

Actual capital expenses for 2019 are estimated to be \$42.3 million, with \$35.4 million from capital improvement projects, \$5.7 million from asset renewal and replacement projects, and \$1.2 million from 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. Contingency funded the purchase of land near the potential site of a future reservoir. CCMWA's planning target is to spend at least 70-80% of the annual CIP budget; however, CIP spending in 2019 amounted to only 60% of the annual CIP budget. The planning target was not reached because of delays on the Quarles Water Treatment Plant 1 Replacement project, which accounted for 44% of the annual capital budget, and the West Side Loop, Section #2 water main replacement project. Spending on these projects did not progress as quickly as expected in 2019, but as these projects move further into the construction phase during 2020, spending should progress at a faster pace. The 2019 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 projected and 2020 proposed operating and capital budgets
- 3.5% inflation factor for operating expenses in future years

- Anticipated water demand of 84.3 MGD in 2019 and lower demand of 77.7 MGD in 2020 due to reduced water purchases from Paulding County beginning in May.
- Average annual water demand of 77.2 MGD from 2021 through 2030 and average annual water demand of 80.4 MGD from 2031 to 2040.

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 possible, but unplanned, projects could include land purchases or settlements related to future reservoir sites, 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				
		2020	2021	2022	2023	2024
Wyckoff 42" Finished Water Main	D	80,386	160,772	160,772	160,772	160,772
U.S. Highway 41 Parallel 20" Water Main	D	54,907	109,814	109,814	109,814	109,814
West Side Loop Section #2 36" Water Main	D	-	-	234,750	469,501	469,501
Blackjack Tank Supply 36" Water Line	D	-	-	-	207,430	829,719
Wyckoff 42" Raw Water Pipeline Improvements	D	-	-	-	148,107	296,215
Maner Road 36" Water Main Replacement	D	-	-	-	114,320	228,641
Quarles Water Treatment Plant 1 Replacement	D	-	-	1,614,042	1,614,042	1,614,042
Quarles Plant 2 SCADA Replacement	D	-	-	-	293,141	586,281
Quarles Taste & Odor Process Improvements	C/D	-	-	147,895	275,790	275,790
Quarles Power Voltage Regulation	D	-	-	-	143,659	143,659
Quarles Reservoir Cleaning	D	-	-	-	30,934	123,735
Wyckoff 6MG Clearwell Addition	D	-	-	-	437,356	437,356
Wyckoff Maintenance Building Renovation	D	-	-	26,783	107,132	107,132
Wyckoff Press Filtrate Discharge Pre-Treatment	C/D	-	-	135,915	171,829	171,829
Wyckoff Power Voltage Regulation	D	-	-	-	72,378	72,378
Wyckoff Thickener Refurbishment and Addition	D	-	-	-	-	212,069
Pete Shaw Tank No. 2 (5 MG)	M/D	-	75,753	111,505	111,505	111,505
2020 AR&R Projects *	D	950,970	1,901,940	1,901,940	1,901,940	1,901,940
Total Operating Impact from CIP and AR&R Projects		1,086,263	2,248,279	4,443,417	6,369,650	7,852,378
Cost Category		2020	2021	2022	2023	2024
Chemicals (C)			-	120,000	120,000	120,000
Maintenance (M)			40,000	40,000	40,000	40,000
Depreciation (D)		1,086,263	2,208,279	4,283,417	6,209,650	7,692,378
		1,086,263	2,248,279	4,443,417	6,369,650	7,852,378

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

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 and included in the AR&R category above.

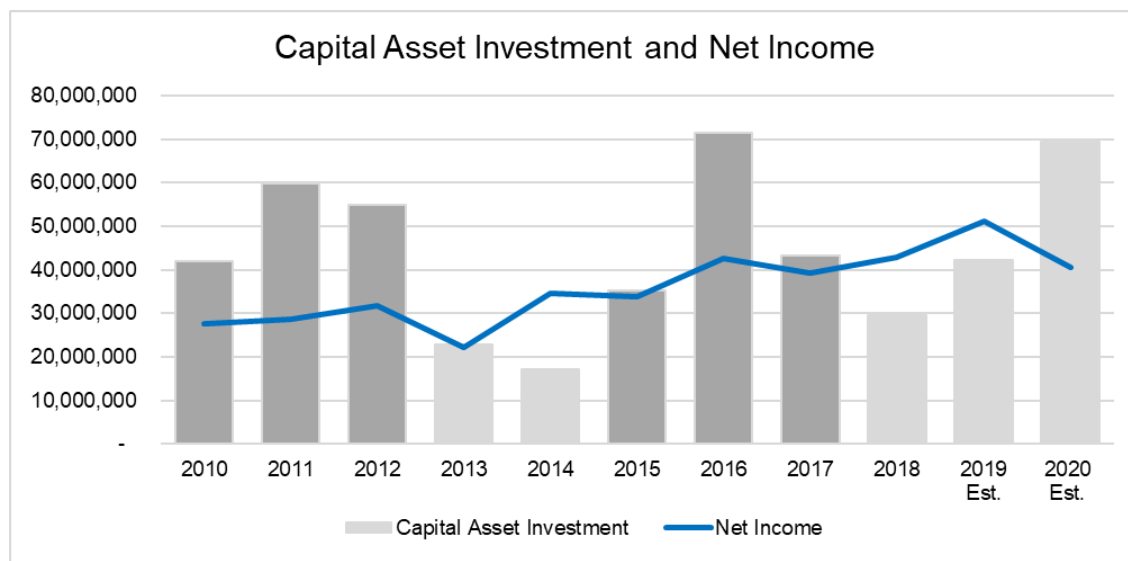
Fund Equity

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.

	2016 Audited	2017 Audited	2018 Audited	2019 Projected	2020 Budget
Operating Revenues	\$ 89,655,464	\$ 86,582,223	\$ 90,478,252	\$ 95,605,480	\$ 89,145,973
Operating Expenses	46,224,169	46,093,835	48,964,073	48,169,940	49,679,994
Operating Income	43,431,295	40,488,388	41,514,179	47,435,540	39,465,979
Non-Operating Revenue (Expense)	(661,803)	(1,098,169)	1,367,539	3,871,330	1,217,254
Change in Net Position	42,769,492	39,390,219	42,881,718	51,306,870	40,683,233
Net Position - Beginning	509,954,650	552,724,142	592,114,361	634,996,079	686,302,949
Net Position - Ending	\$ 552,724,142	\$ 592,114,361	\$ 634,996,079	\$ 686,302,949	\$ 726,986,182

Total net position as of December 31, 2018 was \$634,996,079. Total net position is projected to be \$686,302,949 by December 31, 2019 and \$726,986,182 by December 31, 2020. 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 2020 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 2020, capital reserves are expected to decrease by \$10.8 million. However, if CCMWA meets its net income expectation and spends 80% of the capital budget, capital reserves will be increased by \$3 million in 2020.



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 90 days 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 Cash Reserved for Future Capital Spending

	2019 Projected	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate
Projected Water Demand (MGD)	84.3	77.7	77.0	76.7	76.5	76.3
Projected Rate Increase	2.00%	2.00%	2.50%	2.50%	2.50%	2.50%
Operating Revenue	\$ 95,605,480	\$ 89,145,973	\$ 88,270,710	\$ 90,257,527	\$ 92,242,908	\$ 94,203,044
Operating Expenses	(48,169,940)	(49,679,994)	(51,610,114)	(53,357,479)	(55,063,288)	(56,648,167)
Interest and Other Income	7,414,964	3,169,646	2,328,879	2,165,065	2,086,510	2,171,698
Other Expenses	(3,543,634)	(1,952,392)	(1,652,316)	(1,617,338)	(1,556,078)	(1,491,607)
Net Income	<u>51,306,870</u>	<u>40,683,233</u>	<u>37,337,159</u>	<u>37,447,775</u>	<u>37,710,052</u>	<u>38,234,968</u>
Annual Cash Available for Construction	51,072,867	58,427,825	55,749,127	56,561,355	57,430,116	58,384,553
Annual CIP Spending	42,360,557	69,309,902	72,806,846	65,109,974	49,621,914	47,519,807
Ending Cash Reserved for Capital	<u>\$216,717,628</u>	<u>\$ 205,835,551</u>	<u>\$188,777,832</u>	<u>\$180,229,213</u>	<u>\$188,037,415</u>	<u>\$198,902,160</u>
Increase/(Decrease) in Cash for Capital	\$ 8,712,310	\$ (10,882,077)	\$ (17,057,719)	\$ (8,548,619)	\$ 7,808,202	\$ 10,864,746

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 eligible to retire 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.

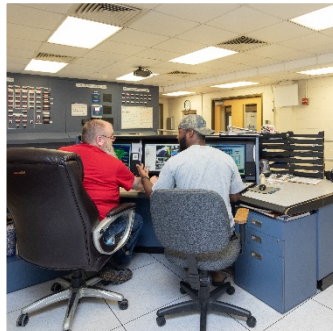
Position reallocations for 2020

- The Security Technician position has been reallocated from the Safety & Security Division to the Information Technology Division. This reallocation is intended to recognize the position's focus on computerized security systems that operate on CCMWA's business network, managed by the Information Technology Division.

Full Time Equivalent Positions by Division

Division	2018	2019	2020
Administration	6.50	5.50	5.50
Finance	3.00	3.00	3.00
Engineering	9.00	9.00	9.00
Information Technology	2.00	4.00	5.00
Safety & Security	2.00	2.00	1.00
Hickory Log Creek Reservoir	2.00	2.00	2.00
Wyckoff	21.00	21.00	21.00
Quarles	21.00	21.00	21.00
Maintenance	27.25	26.25	26.25
Laboratory	10.00	10.00	10.00
Transmission	10.75	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	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Revenue						
Water Sales & Base Charges	\$ 90,957,618	\$ 95,562,230	\$ 4,604,612	\$ 89,104,473	\$ (1,853,145)	-2.04%
Water Testing	40,000	43,250	3,250	41,500	1,500	3.75%
Total Revenue	\$ 90,997,618	\$ 95,605,480	\$ 4,607,862	\$ 89,145,973	\$ (1,851,645)	-2.03%
Division Expense						
General Operations	\$ 2,485,100	\$ 2,090,943	\$ 394,157	\$ 2,024,260	\$ (460,840)	-18.54%
Depreciation Expense	19,500,000	19,439,143	60,857	19,500,000	-	0.00%
Administration Division	918,954	874,703	44,251	955,799	36,845	4.01%
Administration & Rental Buildings	161,600	123,648	37,952	156,100	(5,500)	-3.40%
Finance Division	345,999	325,130	20,868	359,126	13,127	3.79%
Engineering Division	1,360,104	1,315,646	44,459	1,389,812	29,708	2.18%
Information Technology Division	947,242	861,200	86,042	1,232,667	285,425	30.13%
Safety and Security Division	232,794	177,952	54,842	100,000	(132,794)	-57.04%
Research & Development	1,226,000	1,185,354	40,646	1,380,800	154,800	12.63%
Hickory Log Creek Reservoir Division	461,392	405,879	55,513	536,471	75,079	16.27%
Wyckoff Treatment Plant Division	8,298,465	7,981,494	316,970	7,989,023	(309,442)	-3.73%
Quarles Treatment Plant Division	7,695,326	7,019,371	675,955	7,468,753	(226,572)	-2.94%
Maintenance Division	2,902,623	2,771,132	131,491	2,889,872	(12,751)	-0.44%
Laboratory Division	1,103,589	1,081,026	22,564	1,171,158	67,569	6.12%
Transmission Division	2,148,056	2,517,319	(369,263)	2,526,152	378,096	17.60%
Total Division Expense	\$ 49,787,243	\$ 48,169,940	\$ 1,617,302	\$ 49,679,994	\$ (107,249)	-0.22%
Total Income from Operations	\$ 41,210,375	\$ 47,435,540	\$ 6,225,164	\$ 39,465,979	\$ (1,744,397)	-4.23%
Other Income						
Interest Income	\$ 2,300,000	\$ 4,172,776	\$ 1,872,776	\$ 2,652,000	\$ 352,000	15.30%
Rental Income	69,220	69,220	-	113,925	44,705	64.58%
Gain (Loss) on Asset Disposal	-	(88,753)	(88,753)	-	-	0.00%
Gain (Loss) on Market Value of Investments	-	2,300,000	2,300,000	-	-	0.00%
Reimbursements & Settlements	-	-	-	-	-	0.00%
Sales Tax Refund	-	54,262	54,262	-	-	0.00%
Timber Sales	-	31,500	31,500	144,000	144,000	0.00%
Amortized Bond Premium	561,100	873,090	311,990	253,722	(307,379)	-54.78%
Miscellaneous Income	10,000	2,870	(7,130)	6,000	(4,000)	-40.00%
Total Other Income	\$ 2,940,320	\$ 7,414,964	\$ 4,474,644	\$ 3,169,646	\$ 229,326	7.80%
Other Expense						
Bond Interest - 2009 Revenue Bonds	\$ 714,939	\$ 623,615	\$ 91,324	\$ -	\$ (714,939)	-100.00%
Bond Interest - 2015 Revenue Bonds	1,849,142	1,849,142	-	1,795,392	(53,750)	-2.91%
Deferred Loss on Defeasance of Debt	-	571,790	(571,790)	-	-	n/a
2009 Bond Deferred Charge Amortization	219,089	447,100	(228,011)	-	(219,089)	-100.00%
Fiscal Agent Fees	6,000	5,827	173	7,000	1,000	16.67%
Total Other Expense	\$ 2,789,170	\$ 3,497,474	\$ (708,304)	\$ 1,802,392	\$ (986,778)	-35.38%
Net Income Before Extraordinary Items	\$ 41,361,525	\$ 51,353,030	\$ 9,991,505	\$ 40,833,233	\$ (528,292)	-1.28%
Extraordinary Items	150,000	46,160	103,840	150,000	-	0.00%
Net Income after Extraordinary Items	\$ 41,211,525	\$ 51,306,870	\$ 10,095,345	\$ 40,683,233	\$ (528,292)	-1.28%
Water Production						
Million Gallons Per Day Average	80.9	84.3	3.4	77.7	-3.2	-3.99%

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 the employee wellness program.

Highlights

- Increased allocation for Health Reimbursement Account based on experience in 2019, which was the second year this type of benefit was offered as part of the health insurance package.
- Decreased Worker's Compensation and Liability Insurance expense due to policy renewals.
- Decreased Long Term Water Supply Litigation expense 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.
- Increased Public Education & Outreach expense due to increased efforts to educate our community about the water treatment process.

General Operations	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Pension Plan Contributions & Fees	\$ 975,100	\$ 975,100	\$ -	\$ 985,000	\$ 9,900	1.02%
Health Reimbursement Account	75,000	75,000	-	90,000	15,000	20.00%
Workers' Compensation Insurance	150,000	105,271	44,729	125,000	(25,000)	-16.67%
Liability Insurance	320,000	304,291	15,709	310,000	(10,000)	-3.13%
Boiler/Machinery Insurance	30,000	26,718	3,282	30,000	-	0.00%
Umbrella & Crime Insurance	65,000	63,160	1,840	65,000	-	0.00%
Risk Reduction / Safety Initiative	10,000	8,588	1,412	10,000	-	0.00%
Employee Incentive	20,000	13,048	6,952	20,000	-	0.00%
Fees - Board Members	34,800	34,800	-	34,800	-	0.00%
Fees - Accounting	1,000	660	340	660	(340)	-34.00%
Fees - Audit	25,000	23,335	1,665	20,000	(5,000)	-20.00%
Fees - Long Term Water Supply Litigation	534,000	250,875	283,125	50,000	(484,000)	100.00%
Fees - Legal	50,000	50,000	-	50,000	-	0.00%
Fees - Drug Testing & Background Checks	8,000	8,000	-	8,000	-	0.00%
Fees - Timber Tax	2,000	995	1,005	5,000	3,000	100.00%
Technical Services	17,000	17,000	-	18,000	1,000	5.88%
Travel Expenses	12,200	12,200	-	11,000	(1,200)	-9.84%
Dues and Fees	45,000	45,000	-	45,000	-	0.00%
Education and Training	14,300	6,266	8,034	6,800	(7,500)	-52.45%
Public Education & Outreach	21,000	4,637	16,363	75,300	54,300	258.57%
Bank Fees	1,500	1,500	-	1,500	-	0.00%
Office Supplies	5,000	5,000	-	5,000	-	0.00%
Investment Advisor	35,000	35,000	-	32,000	(3,000)	-8.57%
Food	6,000	4,500	1,500	6,000	-	0.00%
Books and Periodicals	200	-	200	200	-	0.00%
Employee Wellness Program	28,000	20,000	8,000	20,000	(8,000)	-28.57%
General Operating Expense:	\$ 2,485,100	\$ 2,090,943	\$ 394,157	\$ 2,024,260	\$ (460,840)	-18.54%
Depreciation Expense	19,500,000	19,439,143	60,857	19,500,000	-	0.00%
Total Operating Expense	\$ 21,985,100	\$ 21,530,086	\$ 455,014	\$ 21,524,260	\$ (460,840)	-2.10%

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.

Budget Highlights

- Increased Salaries & Wages expense due to merit increases and professional education achievements.
- Decreased Employee Benefits expense due to changes in coverage levels selected by employees.

Administration Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 693,617	\$ 693,617	\$ -	\$ 755,278	\$ 61,661	8.89%
Overtime Wages	-	-	-	-	-	0.00%
Employee Benefits	112,564	77,695	34,868	81,346	(31,218)	-27.73%
FICA - Employer Share	43,005	37,570	5,435	46,828	3,823	8.89%
Medicare - Employer Share	10,058	10,058	-	10,952	894	8.89%
Travel Expense	15,860	15,860	-	19,200	3,340	21.06%
Dues and Fees	3,200	1,922	1,278	1,550	(1,650)	-51.56%
Education and Training	15,100	15,100	-	16,345	1,245	8.25%
Uniforms	800	267	533	1,200	400	50.00%
Total Personnel Costs	\$ 894,204	\$ 852,090	\$ 42,114	\$ 932,699	\$ 38,495	4.30%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 500	\$ 200	\$ 300	\$ 1,500	\$ 1,000	200.00%
Communications	13,500	12,277	1,223	11,000	(2,500)	-18.52%
Office Supplies	4,900	4,900	-	4,900	-	0.00%
Gasoline, Oil, & Diesel Fuel	300	300	-	400	100	33.33%
Food	3,800	3,800	-	3,800	-	0.00%
Small Equipment	1,000	385	615	1,000	-	0.00%
Safety Supplies & Equipment	750	750	-	500	(250)	-33.33%
Total Non-Personnel Costs	\$ 24,750	\$ 22,613	\$ 2,137	\$ 23,100	\$ (1,650)	-6.67%
Total Administration Expense	\$ 918,954	\$ 874,703	\$ 44,251	\$ 955,799	\$ 36,845	4.01%

Goals and Objectives – Administration Division

#1

Strategic Initiative: Communication Enhancements

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Number of public outreach speaking engagements	≥ 4	> 3	> 3	47	>10
Number of presentations at water conferences	≥ 2	N/A	N/A	7	4
Months since last update to CCMWA website	≤ 6	< 12	< 12	0	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 was 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 as part of the website's relaunch.

#2

Strategic Initiative: Workforce Development

Objective: Attract top-talented personnel

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Number of days to fill open positions	50	N/A	79	65	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 35 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	2017	2018	2019	Goal 2020
Average training hours per employee	47	N/A	N/A	21	30

CCMWA started utilizing a new learning management system through Paycor, our payroll and timekeeping software provider. This effort was 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	2017	2018	2019	Goal 2020
Annualized voluntary turnover rate	< 2.0%	2.7%	0.9%	0.8%	< 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	2017	2018	2019	Goal 2020
Time since last Vulnerability Assessment update	< 5 years	14	15	0	0
Time since last Business Continuity Plan update	< 5 years	1	0	1	1
Time since last Business Continuity Plan exercise	≤ 1 year	1	0	1	0
Time since last Drought Contingency Plan update	< 4 years	1	2	1	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	2017	2018	2019	Goal 2020
Number of individual customer outreach meetings	≥ 10	1	1	10	≥ 10

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 buildings and CCMWA's rental properties. The rental properties owned by CCMWA include the organization's previous Administration & Engineering office building and warehouse space located on the same property as the current Administration & Engineering offices.

Budget Highlights

- Decreased General Maintenance & Repairs expenses compared to prior year in which non-routine cleaning and cosmetic repairs occurred.
- Increased utilities expense due to expected occupancy of a previously vacant Administration & Engineering building by CCMWA staff and a tenant leasing the warehouse space.
- Increased Small Equipment expense due to the purchase of office furniture in 2020.

	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Administration and Rental Buildings						
Cleaning Services	\$ 17,000	\$ 10,260	\$ 6,740	\$ 13,000	\$ (4,000)	-23.53%
General Maint. & Repairs - Admin Building	48,000	44,479	3,521	20,000	(28,000)	-58.33%
General Maint. & Repairs - Rental Buildings	15,000	4,250	10,750	10,000	(5,000)	-33.33%
Security Supplies & Maintenance	12,000	4,246	7,754	9,000	(3,000)	-25.00%
Grounds Maintenance	15,000	12,621	2,379	17,000	2,000	13.33%
Natural Gas	3,000	2,167	833	2,500	(500)	-16.67%
Electricity	43,200	38,004	5,196	60,000	16,800	38.89%
Water Purchases	2,000	2,000	-	4,000	2,000	100.00%
Sewer / Wastewater Handling	2,200	1,421	779	4,000	1,800	81.82%
Janitorial Supplies	1,600	1,600	-	1,600	-	0.00%
Small Equipment	2,600	2,600	-	15,000	12,400	476.92%
Total Admin. & Rental Buildings Expense	\$ 161,600	\$ 123,648	\$ 37,952	\$ 156,100	\$ (5,500)	-3.40%

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.

2019 Achievements

- Received the Government Finance Officers Association Distinguished Budget Presentation Award for the 2019 budget document.
- Received the Government Finance Officers Association Excellence in Financial Reporting Award for the 2018 Comprehensive Annual Financial Report (CAFR).

Budget Highlights

- Increased Salaries & Wages expense due to merit increases and professional education achievements.
- Increased Employee Benefits expense due to increased rates upon renewal.
- Decreased Education and Training expenses due to staff needs changing from the prior year.

Finance Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 262,359	\$ 246,886	\$ 15,473	\$ 277,746	\$ 15,387	5.86%
Employee Benefits	36,168	37,700	(1,532)	40,262	4,094	11.32%
FICA - Employer Share	16,267	14,252	2,015	17,221	954	5.86%
Medicare - Employer Share	3,805	3,333	472	4,028	223	5.86%
Travel Expense	3,500	359	3,141	3,200	(300)	-8.57%
Dues and Fees	500	500	-	520	20	4.00%
Education and Training	11,400	10,849	551	5,000	(6,400)	-56.14%
Uniforms	400	150	250	150	(250)	-62.50%
Total Personnel Costs	\$ 334,399	\$ 314,030	\$ 20,368	\$ 348,126	\$ 13,727	4.11%
Non-Personnel Costs						
Communications	\$ 5,300	\$ 5,300	\$ -	\$ 4,600	\$ (700)	-13.21%
Office Supplies	5,500	5,000	500	5,500	-	0.00%
Food	580	580	-	600	20	3.45%
Safety Supplies & Equipment	220	220	-	300	80	36.36%
Total Non-Personnel Costs	\$ 11,600	\$ 11,100	\$ 500	\$ 11,000	\$ (600)	-5.17%
Total Finance Division Expense	\$ 345,999	\$ 325,130	\$ 20,868	\$ 359,126	\$ 13,127	3.79%

Goals and Objectives – Finance Division

#1

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
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	2017	2018	2019	Goal 2020
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 2019 was \$8.3 million and will be \$ 8.3 million for fiscal year 2020.

#3

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Percent of vendors receiving electronic payments and remittance notifications	> 30%	2%	4%	19%	25%

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

- Increased Salaries & Wages expense due to promotions awarded during 2019.
- Increased Employee Benefits expense due to increased rates upon renewal.
- Decreased Travel and Education & Training expenses to better match historical spending.
- Technical Services will be included in the Research & Development budget in 2020 and in future budget years.

Engineering Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,034,419	\$ 1,029,857	\$ 4,562	\$ 1,062,014	\$ 27,595	2.67%
Employee Benefits	131,551	131,551	-	148,653	17,102	13.00%
FICA - Employer Share	64,134	60,742	3,392	65,845	1,711	2.67%
Medicare - Employer Share	15,000	14,206	794	15,400	400	2.67%
Travel Expense	28,000	13,869	14,131	20,000	(8,000)	-28.57%
Dues and Fees	2,000	1,440	560	2,100	100	5.00%
Education and Training	18,500	14,515	3,985	16,500	(2,000)	-10.81%
Uniforms	1,500	300	1,200	1,500	-	0.00%
Total Personnel Costs	\$ 1,295,104	\$ 1,266,480	\$ 28,625	\$ 1,332,012	\$ 36,908	2.85%
Non-Personnel Costs						
Technical Services	\$ 6,000	\$ 2,950	\$ 3,050	\$ -	\$ (6,000)	-100.00%
Automotive Maintenance & Repairs	8,000	2,070	5,930	4,000	(4,000)	-50.00%
Communications	23,000	23,000	-	20,500	(2,500)	-10.87%
Office Supplies	6,000	6,000	-	8,500	2,500	41.67%
Gas, Oil & Diesel	6,500	5,243	1,257	6,500	-	0.00%
Food	4,000	4,000	-	6,000	2,000	50.00%
Small Equipment	8,500	4,888	3,612	9,300	800	9.41%
Safety Supplies & Equipment	3,000	1,015	1,985	3,000	-	0.00%
Total Non-Personnel Costs	\$ 65,000	\$ 49,166	\$ 15,834	\$ 57,800	\$ (7,200)	-11.08%
Total Engineering Expense	\$ 1,360,104	\$ 1,315,646	\$ 44,459	\$ 1,389,812	\$ 29,708	2.18%

Goals and Objectives – Engineering Division

#1

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Percent of AR&R projects that require Engineering input in progress by end of year	100%	100%	100%	100%	100%
Percent of AR&R projects that require Engineering input completed during year	50%	33%	54%	44%	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 2020, there are 16 AR&R projects that will require input from the Engineering Division and these projects represent 80% of the total AR&R budget for 2020. 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	2017	2018	2019	Goal 2020
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%	83%	100%

The Engineering Division is responsible for planning and managing all of CCMWA's major capital projects. For 2020 this includes four Aged Pipe Replacement projects, two pipeline projects, five plant projects, and one water storage tank project. These projects represent 76% of the total 2020 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	2017	2018	2019	Goal 2020
Percent of Research & Development initiatives assigned to Engineering in progress by end of year, with at least 75% of budget expended	100%	N/A	41%	47%	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 16 of the initiatives in the 2020 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 projects included in the R&D budget for 2020 were selected 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 four to five due to the Security Technician position reallocated from the Safety & Security Division.
- Increased Salaries & Wages, Overtime, Employee Benefits, FICA, and Medicare expenses due to reallocated position and merit increases.
- Increased Engineer – Software Renewals & Support expense for GIS software licensing fees that were previously recognized as part of the Research & Development budget.
- Decreases to various categories due to equipment replacement and software license renewal schedules.



	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Information Technology Division						
Personnel Costs						
Salaries & Wages	\$ 308,065	\$ 296,624	\$ 11,441	\$ 402,972	\$ 94,907	30.81%
Overtime Wages	1,000	1,000	-	2,000	1,000	100.00%
Employee Benefits	60,552	51,381	9,171	88,158	27,606	45.59%
FICA - Employer Share	19,163	17,117	2,046	25,109	5,946	31.03%
Medicare - Employer Share	4,482	4,003	479	5,873	1,391	31.04%
Travel Expense	1,500	1,225	275	4,000	2,500	166.67%
Dues and Fees	250	250	-	500	250	100.00%
Education and Training	9,765	7,807	1,958	10,000	235	2.41%
Uniforms	150	-	150	750	600	400.00%
Total Personnel Costs	\$ 404,927	\$ 379,408	\$ 25,519	\$ 539,362	\$ 134,435	33.20%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 500	\$ 140	\$ 360	\$ 1,000	\$ 500	100.00%
Communications	9,000	9,000	-	10,000	1,000	11.11%
Office Supplies	1,500	1,500	-	2,000	500	33.33%
Gas, Oil & Diesel	1,000	750	250	2,500	1,500	150.00%
Food	525	525	-	500	(25)	-4.76%
Safety Supplies & Equipment	260	260	-	500	240	92.31%
General - Software, Renewals and Support	1,500	1,500	-	2,000	500	33.33%
General - Technology, PCs & Peripherals	5,000	5,000	-	5,000	-	0.00%
Admin - Software, Renewals and Support	38,380	30,230	8,150	31,130	(7,250)	-18.89%
Admin - Technology, PCs & Peripherals	7,800	7,800	-	8,500	700	8.97%
HLC - Software, Renewals and Support	10,500	6,897	3,603	11,250	750	7.14%
HLC - Technology, PCs & Peripherals	1,500	1,500	-	2,250	750	50.00%
Finance - Software, Renewals and Support	14,200	14,200	-	12,200	(2,000)	-14.08%
Finance - Technology, PCs & Peripherals	2,990	2,990	-	5,200	2,210	73.91%
Wyckoff - Software, Renewals & Support	14,410	14,410	-	13,000	(1,410)	-9.78%
Wyckoff - Technology, PCs & Peripherals	6,800	6,800	-	6,000	(800)	-11.76%
Quarles - Software, Renewals & Support	14,750	14,750	-	12,280	(2,470)	-16.75%
Quarles - Technology, PCs & Peripherals	3,200	3,200	-	9,300	6,100	190.63%
Trans - Software, Renewals & Support	12,000	12,000	-	7,400	(4,600)	-38.33%
Trans - Technology, PCs & Peripherals	9,000	9,000	-	2,000	(7,000)	-77.78%
Maint - Software, Renewals & Support	191,000	159,879	31,121	196,995	5,995	3.14%
Maint - Technology, PCs & Peripherals	31,800	31,800	-	22,500	(9,300)	-29.25%
Engineer - Software, Renewals & Support	29,950	29,950	-	210,000	180,050	601.17%
Engineer - Technology, PCs & Peripherals	23,900	20,231	3,669	15,000	(8,900)	-37.24%
Lab - Software, Renewals & Support	18,500	18,500	-	16,500	(2,000)	-10.81%
Lab - Technology, PCs & Peripherals	8,000	8,000	-	4,200	(3,800)	-47.50%
IT - Software, Renewals & Support	58,000	49,221	8,779	58,600	600	1.03%
IT - Technology, PC's & Peripherals	9,000	9,000	-	10,000	1,000	11.11%
S&S - Software, Renewals & Support	14,350	9,759	4,591	10,500	(3,850)	-26.83%
S&S - Technology, PC's & Peripherals	3,000	3,000	-	5,000	2,000	66.67%
Total Non-Personnel Costs	\$ 542,315	\$ 481,793	\$ 60,522	\$ 693,305	\$ 150,990	27.84%
Total Information Technology Expense	\$ 947,242	\$ 861,200	\$ 86,042	\$ 1,232,667	\$ 285,425	30.13%

Goals and Objectives – Information Technology Division

#1
Strategic Initiative: Preparedness/Security
Objective: Ensure business viability

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Average response time to a new help desk ticket	≤ 24 hours	N/A	N/A	9.4	≤ 24
Average time to resolve and close a help desk ticket	≤ 3 days	N/A	N/A	2.4	≤ 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	2017	2018	2019	Goal 2020
Percent of employees that fail surprise phishing email test	0%	N/A	8.7%	0%	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 used 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 has met their benchmark of zero failures and hopes to maintain this benchmark on an annual basis.

#3
Strategic Initiative: Preparedness/Security
Objective: Improve operability of end-user devices

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Percent of workstations with Windows 10 Operating System installed	100%	N/A	45%	95%	100%

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 Division

In previous years, the Safety & Security Division was responsible for promoting CCMWA's safety culture, training employees on safety practices, monitoring the security of all CCMWA facilities, and establishing security procedures. During 2019, changes were made to this division after the Safety Coordinator position was vacated. The Security Technician position was reallocated to the Information Technology Division to recognize the interconnected nature of security systems and business network infrastructure. The division was renamed the Safety Division and the position of Safety Coordination is not funded in the 2020 budget. In late 2019, CCMWA restructured the existing Safety Committee with the goal of putting the responsibility of safety back into the hands of each employee. The Committee will work to promote CCMWA's safety culture, review accidents, and make recommendations on safety procedures. The only budgeted expense for this division in 2020 is for technical services provided by outside agencies and consultants to assist the Safety Committee in their efforts.

Safety Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 154,776	\$ 115,515	\$ 39,261	\$ -	\$ (154,776)	-100.00%
Overtime Wages	1,000	1,568	(568)	-	(1,000)	-100.00%
Employee Benefits	42,200	36,433	5,767	-	(42,200)	-100.00%
FICA - Employer Share	9,659	7,156	2,503	-	(9,659)	-100.00%
Medicare - Employer Share	2,259	1,674	585	-	(2,259)	-100.00%
Travel Expense	2,100	1,295	805	-	(2,100)	-100.00%
Dues and Fees	2,500	2,347	153	-	(2,500)	-100.00%
Education and Training	4,800	1,596	3,204	-	(4,800)	-100.00%
Uniforms	300	300	-	-	(300)	-100.00%
Total Personnel Costs	\$ 219,594	\$ 167,884	\$ 51,710	\$ -	\$ (219,594)	-100.00%
Non-Personnel Costs						
Technical Services	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000	100.00%
Automotive Maintenance & Repairs	1,600	1,600	-	-	(1,600)	-100.00%
Communications	3,500	3,500	-	-	(3,500)	-100.00%
Office Supplies	1,800	1,100	700	-	(1,800)	-100.00%
Gasoline, Oil, & Diesel Fuel	3,000	1,915	1,085	-	(3,000)	-100.00%
Food	900	500	400	-	(900)	-100.00%
Small Equipment	400	150	250	-	(400)	-100.00%
Safety Supplies & Equipment	2,000	1,303	697	-	(2,000)	-100.00%
Total Non-Personnel Costs	\$ 13,200	\$ 10,069	\$ 3,131	\$ 100,000	\$ 86,800	657.58%
Total Safety & Security Expense	\$ 232,794	\$ 177,952	\$ 54,842	\$ 100,000	\$ (132,794)	-57.04%

Goals and Objectives – Safety & Security Division

#1

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Percent of employees that are First Aid, CPR, and AED certified in the last 2 years	> 90%	90%	95%	79%	> 90%
Percent of employees that have completed field-safety training in the last 2 years	> 90%	80%	80%	92%	> 90%
Percent of employees that have completed Defensive Driving course in the last 3 years	> 90%	95%	80%	61%	> 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	2017	2018	2019	Goal 2020
Time since last update of the Safety Manual	≤ 12 months	0	12	7	0
Number of safety audits performed by outside firm each year	≥ 2	2	2	0	2
Number of meetings of the CCMWA Safety Committee each year	≥ 6	6	6	2	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	2017	2018	2019	Goal 2020
Number of tabletop and/or field exercises conducted in response to possible threat or emergency scenarios	≥ 4	0	0	1	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	2017	2018	2019	Goal 2020
Percent of employees that have completed Active Shooter training in the last year	> 90%	N/A	100%	93%	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.



CPR Training

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	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Other Professional Services	\$ 25,000	\$ 14,700	10,300	\$ 100,000	\$ 75,000	300.00%
Hydraulic Model	75,000	41,921	33,079	75,000	-	0.00%
Miscellaneous Engineering	20,000	9,267	10,733	50,000	30,000	150.00%
Security, SCADA, & I.T. Evaluation	80,000	93,097	(13,097)	50,000	(30,000)	-37.50%
Business Case Evaluation Program	40,000	-	40,000	50,000	10,000	25.00%
CIP Master Plan	21,000	-	21,000	25,000	4,000	19.05%
GIS Easement Project	20,000	7,661	12,339	25,000	5,000	25.00%
Energy Optimization Program	50,000	44,470	5,530	25,000	(25,000)	-50.00%
WRF Study & Georgia Tech Pilot Study	1,000	560	440	5,000	4,000	400.00%
Surveying - Easements & Legal	14,000	4,009	9,991	15,000	1,000	7.14%
Quarles Taste & Odor Control Study	30,000	27,033	2,967	-	(30,000)	-100.00%
Internal Corrosion Control Study	150,000	90,742	59,258	200,000	50,000	33.33%
Safety Audits & Investigations	10,000	7,520	2,480	16,000	6,000	60.00%
Upper Etowah Resource Management	20,000	16,823	3,177	18,000	(2,000)	-10.00%
Long Term Water Supply	38,000	38,000	-	30,000	(8,000)	-21.05%
Allatoona Lake Clean-up / Monitoring	8,000	6,505	1,495	8,000	-	0.00%
Pipeline Investigations / Monitoring	81,000	353,564	(272,564)	100,000	19,000	23.46%
Wyckoff Raw Water Line Replacement Study	30,000	25,697	4,303	-	(30,000)	-100.00%
Website & Communications Development	27,000	29,501	(2,501)	15,000	(12,000)	-44.44%
Information System Management Study	45,000	5,371	39,629	25,000	(20,000)	-44.44%
Aged Pipe Replacement Program Support	3,500	-	3,500	-	(3,500)	-100.00%
Workforce Development	20,000	14,720	5,280	62,300	42,300	211.50%
GIS Platform Services	98,560	98,560	-	-	(98,560)	-100.00%
Structural Analysis Program	-	-	-	50,000	50,000	100.00%
Production Meter Testing	-	-	-	100,000	100,000	100.00%
Syrinx and Echologics Monitoring	20,000	10,888	9,112	-	(20,000)	-100.00%
Water Research Initiatives	6,500	6,500	-	40,000	33,500	515.38%
Residuals Management Study	145,440	84,014	61,426	100,000	(45,440)	-31.24%
External Pipeline Corrosion Control Program	50,000	57,231	(7,231)	50,000	-	0.00%
Education Assistance Program	-	-	-	47,000	47,000	100.00%
Payments to Other Agencies (Research)	97,000	97,000	-	99,500	2,500	2.58%
Total Research & Development Expense	\$ 1,226,000	\$ 1,185,354	\$ 40,646	\$ 1,380,800	\$ 154,800	12.63%

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). In 2019, a new Joint Project Agreement was negotiated between CCMWA and the City of Canton to ensure more effective operation of the project with better defined parameters for sharing the resource.

Budget Highlights

- Increased Salaries & Wages expense due to merit increases and a promotion of a Reservoir Operator to Reservoir Superintendent.
- Increased Contingency to allow more flexibility for unexpected expenses in other categories, which matches the budgeting methods of the City of Canton.



Hickory Log Creek Reservoir Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 111,448	\$ 106,937	\$ 4,511	\$ 155,142	\$ 43,694	39.21%
Overtime Wages	6,750	1,815	4,935	5,250	(1,500)	-22.22%
Employee Benefits	34,125	32,207	1,918	33,305	(820)	-2.40%
FICA - Employer Share	7,621	6,308	1,313	9,945	2,324	30.49%
Medicare - Employer Share	1,783	1,551	232	2,326	543	30.45%
Travel Expense	1,500	434	1,066	1,500	-	0.00%
Dues and Fees	1,650	1,360	290	1,838	188	11.36%
Education and Training	3,000	886	2,114	3,000	-	0.00%
Uniforms	900	900	-	900	-	0.00%
Total Personnel Costs	\$ 168,777	\$ 152,399	\$ 16,378	\$ 213,205	\$ 44,428	26.32%
Non-Personnel Costs						
Engineering Services - Dam	\$ 36,900	\$ 36,392	\$ 508	\$ 48,750	\$ 11,850	32.11%
Technical Services	11,100	5,552	5,548	11,250	150	1.35%
Motor/Gear Inspections	1,125	-	1,125	1,125	-	0.00%
Biological Monitoring	-	-	-	-	-	0.00%
USGS Monitoring	25,125	24,200	925	25,500	375	1.49%
General Maintenance & Repairs	45,632	45,632	-	7,174	(38,458)	-84.28%
Electrical Maintenance & Repairs	3,000	3,000	-	1,875	(1,125)	-37.50%
Coatings Maintenance & Repairs	1,475	-	1,475	15,000	13,525	916.95%
SCADA Maintenance & Repairs	6,000	6,000	-	4,500	(1,500)	-25.00%
Security Maintenance & Repairs	8,250	1,162	7,088	5,250	(3,000)	-36.36%
Automotive Maintenance & Repairs	1,725	592	1,133	1,725	-	0.00%
Grounds Maintenance	18,000	13,182	4,818	17,250	(750)	-4.17%
Rental of Equipment and Vehicles	375	-	375	375	-	0.00%
Liability Insurance	39,700	39,700	-	44,300	4,600	11.59%
Communications	5,595	5,595	-	6,968	1,373	24.53%
Office Supplies	1,500	1,500	-	1,500	-	0.00%
Natural Gas	2,700	714	1,986	750	(1,950)	-72.22%
Electricity	69,000	65,317	3,683	64,125	(4,875)	-7.07%
Gas, Oil & Diesel	2,363	1,133	1,230	1,500	(863)	-36.52%
Laboratory Supplies and Chemicals	450	-	450	450	-	0.00%
Food	375	375	-	375	-	0.00%
Water Purchases	1,875	362	1,513	1,875	-	0.00%
Janitorial Supplies	525	119	406	525	-	0.00%
Small Equipment	2,325	667	1,658	1,125	(1,200)	-51.61%
Safety Supplies & Equipment	7,500	2,287	5,213	3,750	(3,750)	-50.00%
Contingency	-	-	-	56,250	56,250	n/a
Total Non-Personnel Costs	\$ 292,615	\$ 253,480	\$ 39,135	\$ 323,266	\$ 30,651	10.47%
Total Hickory Log Creek Expense	\$ 461,392	\$ 405,879	\$ 55,513	\$ 536,471	\$ 75,079	16.27%

Goals and Objectives – Hickory Log Creek Reservoir

#1

Strategic Initiative: Preparedness/Security

Objective: Maintain continuity of service

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
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	0	1	2	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	2017	2018	2019	Goal 2020
Number of employees that are cross-trained in operating procedures to provide on-call support	≤ 3	1	1	5	5

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	2017	2018	2019	Goal 2020
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	2017	2018	2019	Goal 2020
Ensure reservoir is at full capacity on June 1 st	1,060 msl	1,060	1,060	1,060	1,060

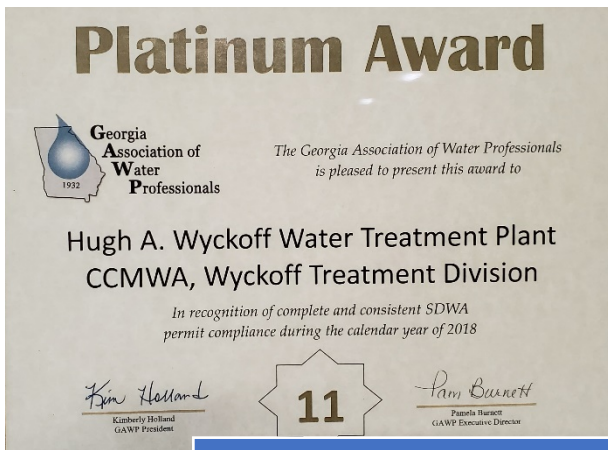
Hickory Log Creek Reservoir has a permit allocated yield of 44 MGD. Full pool is elevation 1,060 feet above mean sea level (msl). At full pool, the reservoir has enough capacity for 44 MGD of yield for six months. CCMWA is allocated 33 MGD of said yield and the City of Canton is allocated 11 MGD. Water 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 86 million gallons per day.

2019 Achievements

- Received the Large (> 50 MGD) Surface Water Plant of the Year Award from the Georgia section of the American Water Works Association for the second year in a row.
- 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. 2019 marked 11 years of the Wyckoff Water Treatment Plant receiving this award.



Wyckoff's Platinum Award



Staff receiving the Surface Water Plant of the Year Award



Wyckoff Water Treatment Plant

Budget Highlights

- Decreased Salaries & Wages expenses due to retirements in 2019.
- Increased Employee Benefits expense due to increased rates upon renewal.
- Decreased Water Treatment Chemicals expense due reduction in projected water demand for 2020.
- Increased estimate for Sewer/Wastewater Handling expense in anticipation of costs associated with sewer discharges under an industrial pre-treatment permit from Cobb County.

Wyckoff Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,399,081	\$ 1,262,196	\$ 136,885	\$ 1,345,311	\$ (53,770)	-3.84%
Overtime Wages	200,000	162,225	37,775	185,000	(15,000)	-7.50%
Employee Benefits	244,053	244,053	-	270,043	25,990	10.65%
FICA - Employer Share	99,144	83,082	16,062	94,880	(4,264)	-4.30%
Medicare - Employer Share	23,187	19,497	3,690	22,190	(997)	-4.30%
Travel Expense	5,500	3,758	1,743	6,000	500	9.09%
Dues and Fees	2,000	2,000	-	1,200	(800)	-40.00%
Education and Training	17,000	17,000	-	10,000	(7,000)	-41.18%
Uniforms	7,500	7,500	-	7,500	-	0.00%
Total Personnel Costs	\$ 1,997,465	\$ 1,801,311	\$ 196,154	\$ 1,942,123	\$ (55,342)	-2.77%
Non-Personnel Costs						
Motor / Gear Inspection	\$ 130,000	\$ 130,000	\$ -	\$ 100,000	\$ (30,000)	-23.08%
Land Application Soil Scientist	50,000	50,000	-	55,000	5,000	10.00%
General Maintenance & Repairs	368,000	291,433	76,567	325,000	(43,000)	-11.68%
Electrical Maintenance & Repairs	60,000	42,519	17,481	50,000	(10,000)	-16.67%
Coatings Maintenance & Repairs	75,000	25,000	50,000	204,600	129,600	172.80%
SCADA Maintenance & Repairs	125,000	125,000	-	120,000	(5,000)	-4.00%
Security Maintenance & Repairs	21,000	21,000	-	15,000	(6,000)	-28.57%
Residuals Management	415,000	415,000	-	415,000	-	0.00%
Automotive Maintenance & Repairs	4,000	1,000	3,000	1,500	(2,500)	-62.50%
Grounds Maintenance	60,000	44,035	15,965	60,000	-	0.00%
Rental of Equipment & Vehicles	10,000	10,000	-	5,000	(5,000)	-50.00%
Communications	50,000	50,000	-	56,000	6,000	12.00%
Office Supplies	7,000	4,000	3,000	5,000	(2,000)	-28.57%
Water Treatment Chemicals	1,755,000	1,755,000	-	1,412,800	(342,200)	-19.50%
Natural Gas	10,000	8,825	1,175	10,000	-	0.00%
Electricity	2,600,000	2,768,063	(168,063)	2,500,000	(100,000)	-3.85%
Gasoline, Oil & Diesel Fuel	10,000	7,736	2,264	10,000	-	0.00%
Laboratory Supplies & Chemicals	32,000	26,960	5,040	30,000	(2,000)	-6.25%
Backup / Emergency Electric Power	100,000	100,000	-	100,000	-	0.00%
Food	5,000	3,036	1,964	5,000	-	0.00%
Water Purchases	316,000	222,082	93,918	275,000	(41,000)	-12.97%
Sewer / Wastewater Handling	39,000	39,000	-	245,000	206,000	528.21%
Janitorial Supplies	10,000	8,500	1,500	10,000	-	0.00%
Small Equipment	30,000	12,994	17,006	18,000	(12,000)	-40.00%
Safety Supplies & Equipment	19,000	19,000	-	19,000	-	0.00%
Total Non-Personnel Costs	\$6,301,000	\$6,180,184	\$120,816	\$ 6,046,900	\$ (254,100)	-4.03%
Total Wyckoff Division Expense	\$ 8,298,465	\$ 7,981,494	\$ 316,970	\$ 7,989,023	\$ (309,442)	-3.73%

Goals and Objectives – Wyckoff Division

#1

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Georgia - American Water Works Association Plant of the Year inspection score (* indicates winning year)	> 90	95.7	98.6*	97.3*	95.0
Number of years of total compliance with all water qualify, monitoring, and reporting requirements (GAWP Platinum Award)	> 5 years	9	10	11	12

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	2017	2018	2019	Goal 2020
Percent of year in compliance with water production permits	100%	100%	100%	100%	100%

The Wyckoff Water Treatment Plant has a permitted capacity of 86 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	2017	2018	2019	Goal 2020
Percent of plant operations staff with Class I Water Treatment Operator license	> 50%	66.7%	53.8%	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

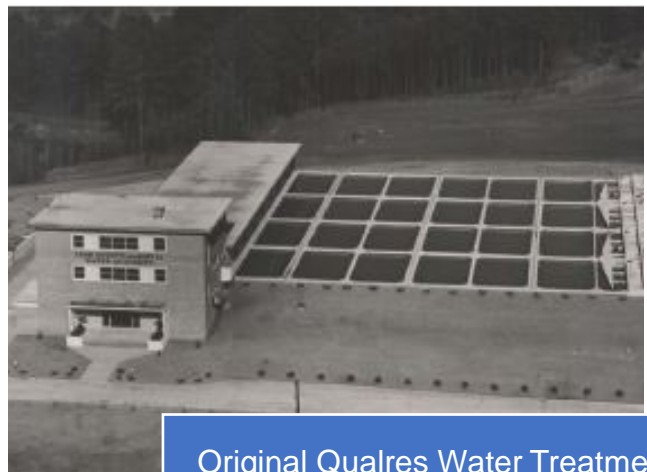
The Quarles Water Treatment Plant is located in eastern Cobb County. The treatment plant withdraws water from the Chattahoochee River, treats the water to potable standards, and pumps the water into CCMWA's transmission system. The Division consists of two water treatment facilities and two intakes/pumping 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 partially within the footprint of the old building, which was completely demolished in 2019.

2019 Achievements

- 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. 2019 marked 11 years of the Quarles Water Treatment Plant receiving this award.



Digital rendering of the new Quarles Water Treatment Plant 1



Original Quarles Water Treatment Plant 1



Quarles Water Treatment Plant 2

Budget Highlights

- Increased Salaries & Wages expense due to merit increases.
- Decreased various expense line items based on historical spending.
- Decreased Electricity expense based on anticipated water production during construction.

Quarles Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,551,408	\$ 1,485,181	\$ 66,227	\$ 1,582,712	\$ 31,304	2.02%
Overtime Wages	279,000	274,256	4,744	285,000	6,000	2.15%
Employee Benefits	376,491	343,597	32,893	378,260	1,769	0.47%
FICA - Employer Share	113,486	104,162	9,324	115,799	2,313	2.04%
Medicare - Employer Share	26,541	24,316	2,225	27,082	541	2.04%
Travel Expense	6,500	4,153	2,347	6,000	(500)	-7.69%
Dues and Fees	4,700	4,700	-	1,500	(3,200)	-68.09%
Education and Training	13,300	7,511	5,789	12,000	(1,300)	-9.77%
Uniforms	7,500	5,000	2,500	5,000	(2,500)	-33.33%
Total Personnel Costs	\$ 2,378,926	\$ 2,252,876	\$ 126,050	\$ 2,413,353	\$ 34,428	1.45%
Non-Personnel Costs						
Motor / Gear Inspection	\$ 75,000	\$ 75,000	\$ -	\$ 100,000	\$ 25,000	33.33%
Land Application Soil Scientist	50,000	50,000	-	55,000	5,000	10.00%
Cleaning Services	40,000	33,296	6,704	36,000	(4,000)	-10.00%
General Maintenance & Repairs	345,000	300,000	45,000	300,000	(45,000)	-13.04%
Electrical Maintenance & Repairs	115,000	115,000	-	100,000	(15,000)	-13.04%
Coatings Maintenance & Repairs	58,000	25,000	33,000	167,400	109,400	188.62%
SCADA Maintenance & Repairs	150,000	96,759	53,241	150,000	-	0.00%
Security Maintenance & Repairs	20,000	20,000	-	18,000	(2,000)	-10.00%
Residuals Management	315,000	315,000	-	275,000	(40,000)	-12.70%
Automotive Maintenance & Repairs	5,000	2,034	2,966	5,000	-	0.00%
Grounds Maintenance	60,000	48,382	11,618	60,000	-	0.00%
Rental of Equipment & Vehicles	4,000	272	3,728	1,500	(2,500)	-62.50%
Communications	52,000	52,000	-	53,000	1,000	1.92%
Office Supplies	8,000	4,992	3,008	5,000	(3,000)	-37.50%
Water Treatment Chemicals	803,400	803,400	-	760,000	(43,400)	-5.40%
Natural Gas	38,000	19,248	18,752	25,000	(13,000)	-34.21%
Electricity	2,960,000	2,608,471	351,529	2,750,000	(210,000)	-7.09%
Gasoline, Oil & Diesel Fuel	8,000	8,000	-	10,000	2,000	25.00%
Laboratory Supplies & Chemicals	40,000	40,000	-	40,000	-	0.00%
Backup / Emergency Electric Power	10,000	10,000	-	12,000	2,000	20.00%
Food	5,000	4,000	1,000	5,000	-	0.00%
Sewer / Wastewater Handling	87,000	87,000	-	87,000	-	0.00%
Janitorial Supplies	4,000	1,000	3,000	1,500	(2,500)	-62.50%
Small Equipment	27,500	11,141	16,359	20,000	(7,500)	-27.27%
Safety Supplies & Equipment	36,500	36,500	-	19,000	(17,500)	-47.95%
Total Non-Personnel Costs	\$ 5,316,400	\$ 4,766,495	\$ 549,905	\$ 5,055,400	\$ (261,000)	-4.91%
Total Quarles Division Expense	\$ 7,695,326	\$ 7,019,371	\$ 675,955	\$ 7,468,753	\$ (226,572)	-2.94%

Goals and Objectives – Quarles Division

#1

Strategic Initiative: Water Quality

Objective: Meet or exceed regulatory requirements for water treatment

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
Georgia - American Water Works Association Plant of the Year inspection score (* indicates winning year)	> 90	97.1	97.3	92.7	95.0
Number of years of total compliance with all water qualify, monitoring, and reporting requirements (GAWP Platinum Award)	> 5 years	9	10	11	12

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	2017	2018	2019	Goal 2020
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	2017	2018	2019	Goal 2020
Percent of plant operations staff with Class I Water Treatment Operator license	> 50%	80.0%	78.6%	73.3%	> 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

- Increased Salaries & Wages expense due to merit increases.
- Decreased various expense line items based on historical spending.

Maintenance Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 1,958,079	\$ 1,942,609	\$ 15,470	\$ 1,984,295	\$ 26,216	1.34%
Overtime Wages	36,000	23,165	12,835	36,000	-	0.00%
Employee Benefits	431,696	394,216	37,479	437,122	5,427	1.26%
FICA - Employer Share	123,633	115,254	8,379	125,259	1,626	1.32%
Medicare - Employer Share	28,915	26,926	1,989	29,295	380	1.31%
Travel Expense	13,600	11,663	1,937	10,000	(3,600)	-26.47%
Dues and Fees	5,500	1,500	4,000	3,000	(2,500)	-45.45%
Education and Training	32,200	24,555	7,645	28,000	(4,200)	-13.04%
Uniforms	10,500	10,500	-	10,500	-	0.00%
Total Personnel Costs	\$ 2,640,123	\$ 2,550,389	\$ 89,734	\$ 2,663,472	\$ 23,349	0.88%
Non-Personnel Costs						
Automotive Maintenance & Repairs	\$ 39,400	\$ 39,400	\$ -	\$ 26,400	\$ (13,000)	-32.99%
Rental of Equipment and Vehicles	15,000	7,617	7,383	10,000	(5,000)	-33.33%
Communications	35,000	29,010	5,990	30,000	(5,000)	-14.29%
Office Supplies	10,600	4,776	5,824	7,500	(3,100)	-29.25%
Gas, Oil & Diesel	23,000	21,722	1,278	24,500	1,500	6.52%
Food	7,100	5,217	1,883	6,000	(1,100)	-15.49%
Small Equipment	90,000	90,000	-	90,000	-	0.00%
Safety Supplies & Equipment	42,400	23,000	19,400	32,000	(10,400)	-24.53%
Total Non-Personnel Costs	\$ 262,500	\$ 220,743	\$ 41,757	\$ 226,400	\$ (36,100)	-13.75%
Total Maintenance Division Expense	\$ 2,902,623	\$ 2,771,132	\$ 131,491	\$ 2,889,872	\$ (12,751)	-0.44%

Goals and Objectives – Maintenance Division

#1

Strategic Initiative: Infrastructure Sustainability

Objective: React quickly when an unforeseeable event occurs

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
High priority work order request time to completion	< 1 day	N/A	<1	8.3	< 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	2017	2018	2019	Goal 2020
Preventative/Predictive maintenance work orders vs. corrective work orders	> 80%	N/A	74%	73%	> 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	2017	2018	2019	Goal 2020
% of assigned AR&R projects assigned to the Maintenance Division that are completed on time	≥ 80%	N/A	75%	100%	≥ 80%
% of assigned AR&R projects assigned to the Maintenance Division that are completed within the budgetary constraints	≥ 80%	N/A	100%	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.

2019 Achievements

- Received the Drinking Water Laboratory Quality Assurance Award from the Georgia Association of Water Professionals (GAWP).



Lab Analyst and Lab Division Manager receiving Laboratory Quality Assurance Award



Laboratory Testing



Laboratory Staff

Budget Highlights

- Increased Salaries & Wages expense due to merit increases and promotions.
- Increased Employee Benefits expense due to changes in coverage levels selected by employees.
- Increased various expense line items to accommodate larger square footage of Simmons Laboratory after the expansion project is completed in mid-2020.

Laboratory Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 581,270	\$ 557,367	\$ 23,903	\$ 613,626	\$ 32,356	5.57%
Overtime Wages	10,000	8,313	1,687	10,000	-	0.00%
Employee Benefits	118,254	131,047	(12,793)	139,174	20,920	17.69%
FICA - Employer Share	36,659	32,821	3,838	38,665	2,006	5.47%
Medicare - Employer Share	8,574	7,656	918	9,043	469	5.47%
Travel Expense	4,782	4,223	559	5,000	218	4.56%
Dues and Fees	1,000	743	257	800	(200)	-20.00%
Education and Training	5,700	5,401	299	6,200	500	8.77%
Uniforms	2,500	2,500	-	2,500	-	0.00%
Total Personnel Costs	\$ 768,739	\$ 750,072	\$ 18,668	\$ 825,008	\$ 56,269	7.32%
Non-Personnel Costs						
EPD Compliance Sampling	\$ 40,000	\$ 40,000	\$ -	\$ 39,000	\$ (1,000)	-2.50%
Cleaning Services	9,000	8,737	263	9,000	-	0.00%
General Maintenance & Repairs	57,000	57,000	-	60,000	3,000	5.26%
SCADA Maintenance & Repairs	4,000	4,000	-	5,000	1,000	25.00%
Security Maintenance & Repairs	4,900	4,900	-	5,000	100	2.04%
Automotive Maintenance & Repairs	3,800	3,800	-	3,000	(800)	-21.05%
Grounds Maintenance	10,000	8,896	1,104	10,000	-	0.00%
Rental Equipment and Vehicles	2,000	2,000	-	3,000	1,000	50.00%
Communications	21,400	21,400	-	23,600	2,200	10.28%
Office Supplies	6,000	6,000	-	6,800	800	13.33%
Natural Gas	1,300	1,043	257	2,200	900	69.23%
Electricity	15,000	14,773	227	17,000	2,000	13.33%
Gas, Oil & Diesel	7,000	7,000	-	7,000	-	0.00%
Laboratory Supplies	142,100	142,100	-	145,000	2,900	2.04%
Food	2,200	2,200	-	2,200	-	0.00%
Janitorial Supplies	1,350	1,350	-	1,350	-	0.00%
Small Equipment	5,500	4,556	944	5,000	(500)	-9.09%
Safety Supplies & Equipment	2,300	1,200	1,100	2,000	(300)	-13.04%
Total Non-Personnel Costs	\$ 334,850	\$ 330,954	\$ 3,896	\$ 346,150	\$ 11,300	3.37%
Total Laboratory Division Expense	\$ 1,103,589	\$ 1,081,026	\$ 22,564	\$ 1,171,158	\$ 67,569	6.12%

Goals and Objectives – Laboratory Division

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

KPI Metric	Benchmark	2014	2018	2019	Goal 2020
GAWP Laboratory Quality Assurance Award Score (* indicates winning year)	> 90%	99.4*	98.7	98.4*	> 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 Laboratory 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	2017	2018	2019	Goal 2020
Relative percent difference between CCMWA TOC samples to EPD results	< 20% diff. ±	N/A	14.3%	12.5%	≤ 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	2017	2018	2019	Goal 2020
Percent difference between CCMWA trihalomethane samples results to EPD Laboratory results	< 20% diff. ±	N/A	18.1%	14.0%	≤ 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.

2019 Achievements

- Received the Georgia Association of Water Professionals (GAWP) Gold Award for scoring 95% or higher on its water system annual review in 2019, for the second year in a row.



Transmission Staff

Budget Highlights

- Increased Pipeline Maintenance & Repairs expense due to an increase in location requests and exploratory work in preparation of other agencies' road projects.
- Increased Meter Maintenance & Repairs expense due to the cost of with abandoning meters that served the City of Powder Springs.
- Emergency Pipeline Repairs line item removed due to most emergency repairs meeting the capitalization threshold of \$10,000.
- Decreased Small Equipment expense due to a one-time purchase made in 2019 that will not be repeated in future years.

Transmission Division	2019 Budget	2019 Projected Actual	Variance Favorable (Unfavorable)	2020 Budget	Increase (Decrease) Over 2019 Budget (\$)	Increase (Decrease) Over 2019 Budget (%)
Personnel Costs						
Salaries & Wages	\$ 678,342	\$ 671,508	\$ 6,834	\$ 694,474	\$ 16,132	2.38%
Overtime Wages	28,000	20,880	7,120	23,500	(4,500)	-16.07%
Employee Benefits	89,378	83,946	5,432	88,752	(626)	-0.70%
FICA - Employer Share	43,794	40,814	2,980	44,515	721	1.65%
Medicare - Employer Share	10,242	9,541	701	10,411	169	1.65%
Travel Expense	8,000	7,330	670	8,000	-	0.00%
Dues and Fees	1,000	1,000	-	500	(500)	-50.00%
Education and Training	20,000	16,114	3,886	12,000	(8,000)	-40.00%
Uniforms	6,000	6,000	-	6,000	-	0.00%
Total Personnel Costs	\$ 884,756	\$ 857,132	\$ 27,623	\$ 888,152	\$ 3,396	0.38%
Non-Personnel Costs						
Security Maintenance & Repairs	\$ 4,000	\$ 1,000	\$ 3,000	\$ 2,000	\$ (2,000)	-50.00%
Pipeline Maintenance & Repairs	472,000	796,446	(324,446)	600,000	128,000	27.12%
Tanks Maintenance & Repairs	65,000	89,588	(24,588)	85,000	20,000	30.77%
Meters Maintenance & Repairs	48,000	29,683	18,317	244,000	196,000	408.33%
Emergency Pipeline Repairs	50,000	138,620	(88,620)	-	(50,000)	-100.00%
DOT Pipeline Modifications	7,600	7,600	-	-	(7,600)	-100.00%
Automotive Maintenance & Repairs	20,000	15,528	4,472	20,000	-	0.00%
Right of Way & Tank Grounds Maintenance	504,800	501,773	3,027	600,000	95,200	18.86%
Rental Equipment and Vehicles	2,500	-	2,500	2,500	-	0.00%
Communications	21,800	17,922	3,878	24,000	2,200	10.09%
Office Supplies	2,000	1,500	500	2,000	-	0.00%
Gas, Oil & Diesel	25,000	21,619	3,381	25,000	-	0.00%
Food	3,200	3,200	-	3,500	300	9.38%
Small Equipment	31,000	31,000	-	15,000	(16,000)	-51.61%
Safety Supplies & Equipment	6,400	4,707	1,693	15,000	8,600	134.38%
Total Non-Personnel Costs	\$ 1,263,300	\$ 1,660,186	\$ (396,886)	\$ 1,638,000	\$ 374,700	29.66%
Total Transmission Division Expense	\$ 2,148,056	\$ 2,517,319	\$ (369,263)	\$ 2,526,152	\$ 378,096	17.60%

Goals and Objectives – Transmission Division

#1

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

KPI Metric	Benchmark	2017	2018	2019	Goal 2020
GAWP Water Distribution System annual review score	> 95%	N/A	99.9%	98%	≥ 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	2017	2018	2019	Goal 2020
Number of locate points mapped into GIS system during the year	100	46	100	192	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	2017	2018	2019	Goal 2020
Number of meters changed out per year	≥ 5	3	5	6	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	2017	2018	2019	Goal 2020
Percent of transmission system valves exercised/evaluated on a yearly basis	≥ 33%	N/A	57%	53%	> 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 2020 and 2024. 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 2024, nor any costs incurred before 2020. All projects listed in CCMWA's capital budget will be financed with designated reserves and net income.

The projects defined in the 2020-2024 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	2020 Budgeted Cost	2021 Estimated Cost	2022 Estimated Cost	2023 Estimated Cost	2024 Estimated Cost	Estimated 5-Year Cost
Aged Pipe Replacements								
Wyckoff 42" Finished Water Main	2017-2020	\$ 6,338,582	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -	\$ 1,700,000
U.S Highway 41 Parallel 20" Water Main	2017-2020	2,290,704	3,200,000	-	-	-	-	3,200,000
West Side Loop Section #2, 36" Water Main	2018-2022	1,180,808	10,000,000	11,294,230	1,000,000	-	-	22,294,230
Blackjack Tank Supply 36" Water Main	2019-2023	500,000	4,000,000	15,600,000	17,305,600	10,555,724	-	47,461,324
Factory Shoals 30" & Six Flags 24" Water Mains	2021-2024	-	-	442,000	6,023,728	3,144,754	467,943	10,078,425
Trickum Road 20" Water Main	2022-2024	-	-	-	324,480	3,971,951	350,958	4,647,389
Mars Hill Church Rd to Pine Mountain 36" Water Main	2022-2026	-	-	-	508,352	10,522,780	10,943,691	21,974,823
Pine Mountain to Barrett Pkwy 42"/30" Water Main	2023-2027	-	-	-	-	551,183	11,119,993	11,671,176
CIP Projects								
Wyckoff 42" Raw Water Pipeline Improvements	2020-2023	-	428,000	8,337,680	5,482,630	562,432	-	14,810,742
Maner Road 36" Water Main Replacement	2020-2023	-	200,000	5,720,000	4,867,200	644,843	-	11,432,043
Plant Improvements								
Quarles Water Treatment Plant 1 Replacement	2014-2021	55,702,110	23,000,000	2,000,000	-	-	-	25,000,000
Quarles Plant 2 SCADA Replacement	2018-2023	25,000	1,000,000	2,080,000	5,408,000	281,216	-	8,769,216
Quarles Taste & Odor Process Improvements	2020-2022	-	285,000	2,667,600	2,163,200	-	-	5,115,800
Quarles Power Voltage Regulation	2021-2022	-	-	208,000	1,946,880	-	-	2,154,880
Quarles Main Switchgear Replacement	2022-2024	-	-	-	281,216	1,316,091	1,368,735	2,966,042
Quarles Reservoir Cleaning	2023	-	-	-	-	1,237,350	-	1,237,350
Quarles Chemical Building Replacement	2023-2025	-	-	-	-	562,432	2,632,182	3,194,614
Quarles Chlorine Feed System	2023-2025	-	-	-	-	562,432	2,924,646	3,487,078
Quarles Thickener Addition	2023-2024	-	-	-	-	179,978	1,684,596	1,864,574
Quarles Dewatering Equipment Replacement	2024-2026	-	-	-	-	-	935,887	935,887
Wyckoff 6MG Clearwell Addition	2019-2022	100,000	6,000,000	9,880,000	1,514,240	-	-	17,394,240
Wyckoff Maintenance Facility Improvements	2019-2022	50,000	100,000	1,560,000	432,640	-	-	2,092,640
Wyckoff Press Filtrate Discharge Pre-Treatment	2021-2022	-	-	104,000	973,440	-	-	1,077,440
Wyckoff Power Voltage Regulation	2021-2022	-	-	208,000	1,946,880	-	-	2,154,880
Wyckoff Thickener Refurbishment and Addition	2021-2023	-	-	301,600	1,411,488	1,467,948	-	3,181,036
Pump Station Improvements								
Wyckoff Raw Water Pump Station Replacement	2024-2028	-	-	-	-	-	467,943	467,943
Water Storage Tank Improvements								
Pete Shaw Tank No. 2 (5 MG)	2018-2021	156,892	2,603,320	100,000	-	-	-	2,703,320
Other Capital Projects								
Hickory Log Creek & Sharp Mtn. Creek Reservoirs			Contingency	Contingency	Contingency	Contingency	Contingency	Contingency
Department of Transportation Projects			1,500,000	1,040,000	1,081,600	1,124,864	1,169,859	5,916,323
Asset Renewal & Replacement Projects			13,313,582	8,663,736	9,734,400	10,123,776	10,528,727	52,364,221
General Contingency			2,000,000	2,600,000	2,704,000	2,812,160	2,924,646	13,040,806
Totals			69,329,902	72,806,846	65,109,974	49,621,914	47,519,806	304,388,441

Note:

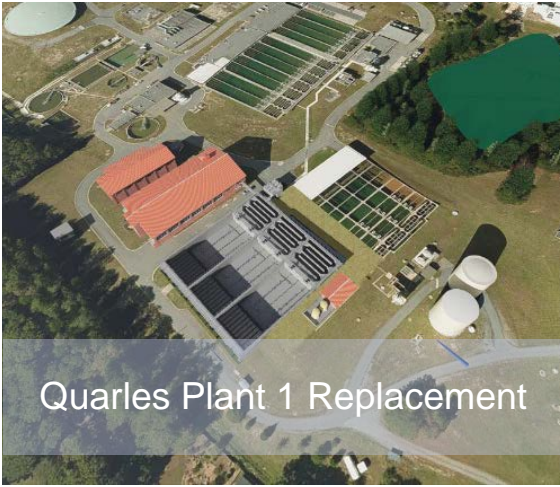
Projects in **green font** are scheduled to be under design as of December 31, 2019.

Projects in **purple font** are scheduled to be under construction as of December 31, 2019.

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

All other projects are not scheduled to start until after January 1, 2020.

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	2019 Actual Spending (estimated)	2020 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	218,665	-	-	218,665
Construction Engineering	-	236,101	26,200	262,301
Construction	470,060	5,274,447	1,576,305	7,320,812
Other Professional Services	2,768	-	84,036	86,804
Land & Easements	136,541	-	13,459	150,000
Totals	\$ 834,034	\$ 5,504,548	\$ 1,700,000	\$ 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:	\$480,966
Scheduled Completion Date:	Fiscal Year 2020	Construction Contract:	\$7,320,812

Project Pictures



Pipeline path at the intersection of Mars Hill Road and U.S. Highway 41 in Acworth, GA



New pipeline being installed in the same trench location as the old pipeline



Construction progress at Wyckoff Water Treatment Plant, leading to connection of new pipeline to the treatment plant



36" gate valve outside the Wyckoff Water Treatment Plant, which allows operators to control flows leaving the treatment plant

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	2019 Actual Spending (estimated)	2020 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	167,884	3,922	-	171,806
Construction Engineering	-	119,973	178,893	298,866
Construction	-	1,972,008	2,973,024	4,945,032
Other Professional Services	605	1,312	23,083	25,000
Land & Easements	25,000	-	25,000	50,000
Totals	\$ 193,489	\$ 2,097,215	\$ 3,200,000	\$ 5,490,704

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		
Project Start Date:	Fiscal Year 2017	Engineering Contract:	\$470,672
Scheduled Completion Date:	Fiscal Year 2020	Construction Contract:	\$4,945,032

Project Pictures



Pipeline being laid along U.S. Highway 41 in Acworth



Pipeline path will run parallel to U.S. Highway 41 and will cross under Allatoona Lake. This project was planned to reach this location in the winter when lake levels are low enough to allow for construction.

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. 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	Prior Year(s) Actual Spending	2019 Actual Spending (estimated)	2020 Estimated Spending	2021 - 2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	190,794	63,306	-	-	254,100
Construction Engineering	-	14,878	340,778	340,777	696,433
Construction	-	846,519	9,466,879	11,761,108	22,074,505
Other Professional Services	1,213	1,976	148,405	148,406	300,000
Land & Easements	3,982	58,141	43,938	43,939	150,000
Totals	\$ 195,988	\$ 984,820	\$ 10,000,000	\$ 12,294,230	\$ 23,475,038

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 2022	Construction Contract:	\$22,074,505

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 Actual Spending (estimated)	2020 Estimated Spending	2021 Estimated Spending	2022 - 2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	418,011	131,989	-	-	550,000
Construction Engineering	-	189,447	189,447	358,895	737,789
Construction	-	3,459,503	15,361,603	27,502,429	46,323,535
Other Professional Services	11,879	19,061	19,060	-	50,000
Land & Easements	70,110	200,000	29,890	-	300,000
Totals	\$ 500,000	\$ 4,000,000	\$ 15,600,000	\$ 27,861,324	\$ 47,961,324

Project Justification and Operating Impact

This project was identified for replacement as part of 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

Wyckoff 42" Raw Water Pipeline Improvements

This project will replace 7,200 feet of 30" pre-stressed concrete cylinder pipe with new 54" ductile iron pipe. The Wyckoff Water Treatment Plant is supplied by two raw water mains from Allatoona Lake that were installed in stages to meet water demands. The initial raw water main was installed in 1965 and consists of approximately 23,000 feet of 30", 36", and 42" pre-stressed concrete cylinder pipe. A second 60" raw water main was installed in 1977 and runs parallel to the original raw water main. The 30" section of the original raw water main, that runs from Allatoona Lake to State Route 293, will be replaced during this project and remaining sections have been prioritized for replacement in the future. This section was selected for replacement due to hydraulic issues caused by the raw water main's varying diameters, which will be improved by replacing the 30" diameter section with 54" diameter pipe.

Classification	2020 Estimated Spending	2021 Estimated Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	427,000	73,000	-	-	500,000
Construction Engineering	-	337,680	112,320	50,000	500,000
Construction	-	7,840,000	5,303,310	487,432	13,610,742
Other Professional Services	1,000	37,000	37,000	25,000	100,000
Land & Easements	20,000	50,000	30,000	-	100,000
Totals	\$ 428,000	\$ 8,337,680	\$ 5,482,630	\$ 562,432	\$ 14,810,742

Project Justification and Operating Impact

This project was identified for replacement as part of 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:	Chris Dillard		
Project Start Date:	Fiscal Year 2020	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2023	Construction Contract:	TBD

Maner Road 36” Water Main Replacement

This project will replace up to 9,100 feet of 36” ductile iron pipe that has experienced multiple corrosion related failures in the last 17 years. The last failure occurred in 2019 and resulted in loss of pressure to some customers of Cobb County Water System. This section of pipeline is in the southern portion of Cobb County and is adjacent to Georgia Power’s Plant McDonough-Atkinson near the intersection of I-285 and South Cobb Drive.

Classification	2020 Estimated Spending	2021 Estimated Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	200,000	300,000	-	-	500,000
Construction Engineering	-	250,000	250,000	32,043	532,043
Construction	-	4,970,000	4,417,200	612,800	10,000,000
Other Professional Services	-	100,000	100,000	-	200,000
Land & Easements	-	100,000	100,000	-	200,000
Totals	\$ 200,000	\$ 5,720,000	\$ 4,867,200	\$ 644,843	\$ 11,432,043

Project Justification and Operating Impact

Due to the criticality of this project it was introduced into the 2020-2024 CIP to enhance the reliability of the transmission system. The project scope has not been finalized and may include an alternative route to ensure the new section is placed in a less corrosive area. A Business Case Evaluation and condition assessment will be conducted in 2020 to provide a basis for scope development.

The proactive replacement of this pipe section before another corrosion related failure occurs will reduce operational costs associated with emergency pipeline repairs. The repair made in 2019 resulted in unplanned operational costs of over \$280,000.

Project Details

Project Manager:	Jacob Wilson		
Project Start Date:	Fiscal Year 2020	Engineering Contract:	TBD
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	2019 Actual Spending (estimated)	2020 Estimated Spending	2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	2,777,276	-	-	-	2,777,276
Construction Engineering	1,684,061	1,611,387	1,655,278	183,920	5,134,646
Construction	21,401,586	28,209,068	20,744,722	1,434,733	71,790,109
Materials	12,909	-	-	187,170	200,079
Other Professional Services	5,823	-	600,000	194,177	800,000
Totals	\$ 25,881,655	\$ 29,820,455	\$ 23,000,000	\$ 2,000,000	\$ 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

Project Pictures



Aerial view of construction progress as of December 2019



Construction of Filter Building



Internal components of Water Treatment Plant



Aerial view of construction progress before the old Quarles Plant 1 (on left) was completely demolished

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	Prior Year(s) Actual Spending	2019 Actual Spending (estimated)	2020 Estimated Spending	2021 - 2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	-	900,000	78,400	978,400
Construction Engineering	-	-	-	1,817,053	1,817,053
Construction	-	-	-	5,627,299	5,627,299
Materials	-	-	-	246,464	246,464
Other Professional Services	25,000	-	100,000	-	125,000
Totals	\$ 25,000	-	\$ 1,000,000	\$ 7,769,216	\$ 8,794,216

Project Justification and Operating Impact

The SCADA system has become an integral part of the water treatment process since its installation 18 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 Quarles Division budget for SCADA maintenance and repairs was increased in 2019 and maintained at the same level for 2020 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:	\$2,795,453
Scheduled Completion Date:	Fiscal Year 2023	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 Actual Spending (estimated)	2020 Estimated Spending	2021 Estimated Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	135,904	-	-	135,904
Construction Engineering	-	-	102,027	102,028	204,055
Construction	-	-	2,565,573	2,061,172	4,626,745
Other Professional Services	-	149,096	-	-	149,096
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:	\$339,959
Scheduled Completion Date:	Fiscal Year 2022	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 Actual Spending (estimated)	2020 Estimated Spending	2021 Estimated Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	100,000	21,850	-	-	121,850
Construction Engineering	-	81,111	168,333	25,000	274,444
Construction	-	5,97,039	9,711,667	1,489,240	16,997.946
Other Professional Services	-	100,000	-	-	100,000
Totals	\$ 100,000	\$ 6,000,000	\$ 9,880,000	\$ 1,514,240	\$ 17,494,240

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:	\$396,294
Scheduled Completion Date:	Fiscal Year 2022	Construction Contract:	TBD

Wyckoff Maintenance Facility Improvements

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 Actual Spending (estimated)	2020 Estimated Spending	2021 Estimated Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	100,000	-	-	100,000
Construction Engineering	-	-	100,000	-	100,000
Construction	-	-	1,455,000	432,640	1,887,640
Materials	50,000	-	-	-	50,000
Other Professional Services	-	-	5,000	-	5,000
Totals	\$ 50,000	\$ 100,000	\$ 1,560,000	\$ 432,640	\$ 2,142,640

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:	Rita Neely		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2022	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	Prior Year(s) Actual Spending	2019 Actual Spending (estimated)	2020 Estimated Spending	2021 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	38,402	118,160	-	-	156,562
Construction Engineering	-	-	78,350	-	78,350
Construction	-	-	2,520,300	100,000	2,620,300
Other Professional Services	-	330	4,670	-	5,000
Totals	\$ 38,402	\$ 118,490	\$ 2,603,320	\$100,000	\$ 2,860,212

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:	Rita Neely		
Project Start Date:	Fiscal Year 2018	Engineering Contract:	\$234,912
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	\$2,620,300

Asset Renewal & Replacement Projects

	Prior Year Allocations Carried Over	2020 Allocation	Total Project Allocation	Estimated Prior Year Investments	2020 Budgeted Project Spending
General and Administration					
Replace Multifunction Copiers in Admin Building	-	20,000	20,000	-	20,000
Remodeling of 1190 Atlanta Industrial Drive	316,389	-	316,389	266,975	49,414
	316,389	20,000	336,389	266,975	69,414
Engineering					
Remote Flow and Pressure Monitoring Sites	-	110,550	110,550	-	110,550
	-	110,550	110,550	-	110,550
Information Technology					
Admin SCADA iHistorian Server Replacement & Upgrade	-	40,000	40,000	-	40,000
Board Room Audio Visual Upgrades	-	100,000	100,000	-	100,000
File Server Upgrade	-	11,000	11,000	-	11,000
	-	151,000	151,000	-	151,000
Safety & Security					
Brush Mountain Tank Site Fence Replacement	-	30,000	30,000	-	30,000
Lost Mountain Tank Site Fence Replacement	-	26,000	26,000	-	26,000
Quarles Maintenance Garage Entry Doors Access Control	-	55,000	55,000	-	55,000
Quarles Security System DVR Replacement	-	23,000	23,000	-	23,000
Wyckoff Intake Gate Intercom System	-	10,000	10,000	-	10,000
Wyckoff Main Gate Guard Shack Installation	-	230,000	230,000	-	230,000
Wyckoff Pipe Yard Camera Upgrades	-	22,000	22,000	-	22,000
Wyckoff Pipe Yard Gate and Gate Operator Replacement	-	32,000	32,000	-	32,000
Wyckoff Security Camera Upgrades	-	35,000	35,000	-	35,000
	-	463,000	463,000	-	463,000
Hickory Log Creek					
SCADA PLC and Panelview Replacements	-	56,250	56,250	-	56,250
Security System DVR & Camera Replacements	-	12,750	12,750	-	12,750
	-	69,000	69,000	-	69,000
Wyckoff Treatment Division					
Hypochlorite Generators (2) and Components Replacement	-	181,000	181,000	-	181,000
Total Organic Carbon Analyzer Replacement for Operations Lab	-	34,000	34,000	-	34,000
Fluoride Bulk Tanks Replacement	-	50,000	50,000	-	50,000
Residuals Management Air Compressor Replacement	-	15,000	15,000	-	15,000
Thickener #3 Control Panel Replacement	-	120,000	120,000	-	120,000
Wyckoff Intake and Generator PLC Processor Upgrade	-	110,000	110,000	-	110,000
Liquid Lime System for WTD Residuals	1,100,000	472,000	1,572,000	358,789	1,213,211
Raw Water Pump and Motor #5 Replacement	1,450,000	-	1,450,000	336,657	1,113,343
Residuals Filter Press and Lime Silo PLC	40,000	-	40,000	35,433	4,567
SSEQ Decant System	690,000	534,000	1,224,000	501,369	722,631
	3,280,000	1,516,000	4,796,000	1,232,248	3,563,752
Quarles Treatment Division					
Groover Mountain Pump Station & Tank PLC Replacement	-	45,000	45,000	-	45,000
Quarles Raw Water Pump #7 Rebuild	-	60,500	60,500	-	60,500
Quarles Raw Water Pump #2 Rebuild	-	81,000	81,000	-	81,000
Quarles Recycle Pump System Upgrade	-	50,000	50,000	-	50,000
Rebuild Residuals Management Filter Press #2	-	150,000	150,000	-	150,000
Replace 2005 Chevrolet Colorado (Vehicle 05-02)	-	35,000	35,000	-	35,000
Hypo Building HVAC Improvements	-	200,000	200,000	-	200,000
Liquid Lime System for QTD Residuals	86,000	1,370,000	1,456,000	-	1,456,000
Quarles Plant 2 Filter Building Beck Actuator Replacements	400,000	1,152,055	1,552,055	16,657	1,535,398
Quarles Plant 2 Effluent Valve Beck Actuator Replacements	185,576	176,511	362,087	188,511	173,576
Quarles RWPS #1 Beck Actuator Installation	78,000	390,321	468,321	11,322	456,999
Quarles RWPS #2 Beck Actuator Installation	100,000	436,515	536,515	11,157	525,358
Rebuild Residuals Management Filter Press #1	38,900	91,100	130,000	20,715	109,285
	888,476	4,238,002	5,126,478	248,362	4,878,116

	Prior Year Allocations Carried Over	2020 Allocation	Total Project Allocation	Estimated Prior Year Investments	2020 Budgeted Project Spending
Maintenance					
Portable Generator for Groover & Factory Shoals Pump Stations	-	125,000	125,000	-	125,000
Replace 1997 Ford F-350 Crew Cab (Vehicle 97-04)	-	61,000	61,000	-	61,000
	-	186,000	186,000	-	186,000
Laboratory					
Simmons Lab Expansion	1,200,000	56,000	1,256,000	865,495	390,505
	1,200,000	56,000	1,256,000	865,495	390,505
Transmission					
Pipe Yard Replacement Inventory - 2020	-	150,000	150,000	-	150,000
Meter Replacement - Haverford/Rockwell (Acct 12-24)	-	40,000	40,000	-	40,000
Meter Replacement - Hwy 41/Rottenwood Creek (Acct 12-12)	-	40,000	40,000	-	40,000
Meter Replacement - Kennesaw Ave/Kirk Road (Acct 12-22)	-	40,000	40,000	-	40,000
Meter Replacement - Spring Road/Hardgrove Road (Acct 10-18)	-	40,000	40,000	-	40,000
Meter Replacement - Undefined Reservation	-	40,000	40,000	-	40,000
Planned Blow-Off Replacements - 2020	-	1,680,000	1,680,000	-	1,680,000
Replace Valve Maintenance Truck (Vehicle 12-03)	-	163,000	163,000	-	163,000
Reservation for Unplanned Pipe & Valve Replacements	-	500,000	500,000	-	500,000
Groover Mountain Tank Painting	10,000	740,000	750,000	10,755	739,245
	10,000	3,433,000	3,443,000	10,755	3,432,245
Totals	\$ 5,694,865	\$ 10,242,552	\$ 15,937,417	\$ 2,623,835	\$ 13,313,582

*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 \$76,356,488 as of January 1, 2019, with \$16,168,091 classified as current liabilities (due in less than one year) and \$60,188,397 classified as long-term liabilities. Compensated absences payable, both current and long-term, contributed to \$2,210,413 of total liabilities. CCMWA estimates a debt ratio, calculated as total liabilities divided by total assets, of 7.6% at January 1, 2020.

No additional debt was issued in 2019 and CCMWA does not intend to issue debt in the current 5-year plan; however, if interest rates become favorable, refinancing of existing debt could occur. During 2019, net income was used to fund the defeasance of CCMWA's oldest outstanding debt, \$11.5 million in 2009 Series Bonds. 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 – 2019 through 2024

Series 2009 Revenue Bonds - Maturity 2021

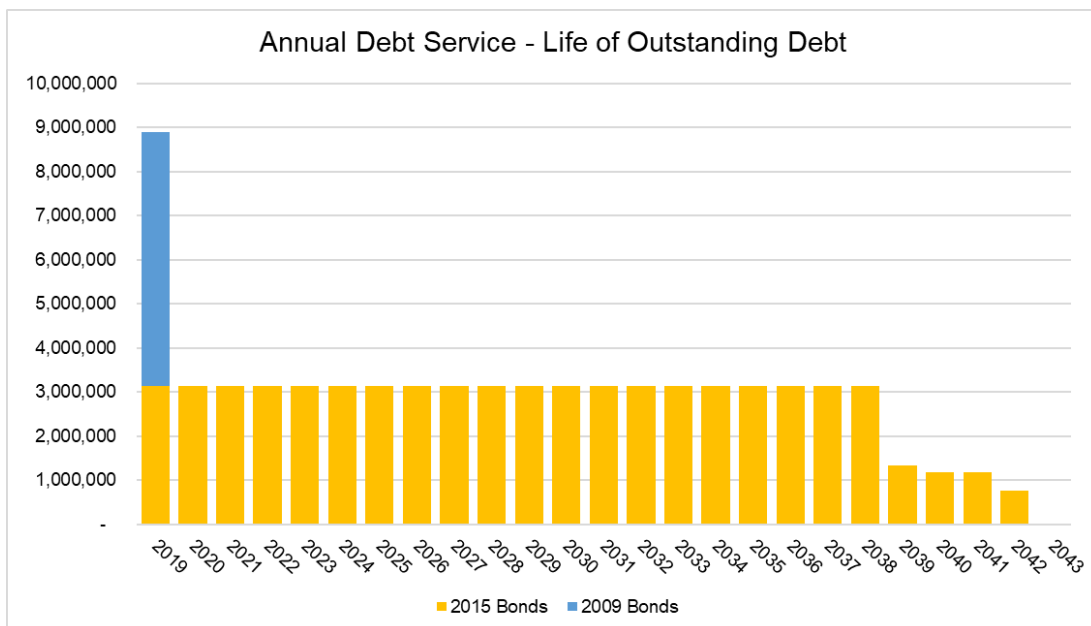
Fiscal Year Ending December 31,	Principal	Interest	Total
2019	5,010,000	748,338	5,758,338
2020 (defeased)	-	-	-
2021 (defeased)	-	-	-
2022	-	-	-
2023	-	-	-
2024	-	-	-

Series 2015 Revenue Bonds - Maturity 2042

Fiscal Year Ending December 31,	Principal	Interest	Total
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
2024	1,585,000	1,550,875	3,135,875

Total Long-Term Debts Payable

Fiscal Year Ending December 31,	Principal	Interest	Total
2019	6,290,000	2,606,013	8,896,013
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
2024	1,585,000	1,550,875	3,135,875



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.

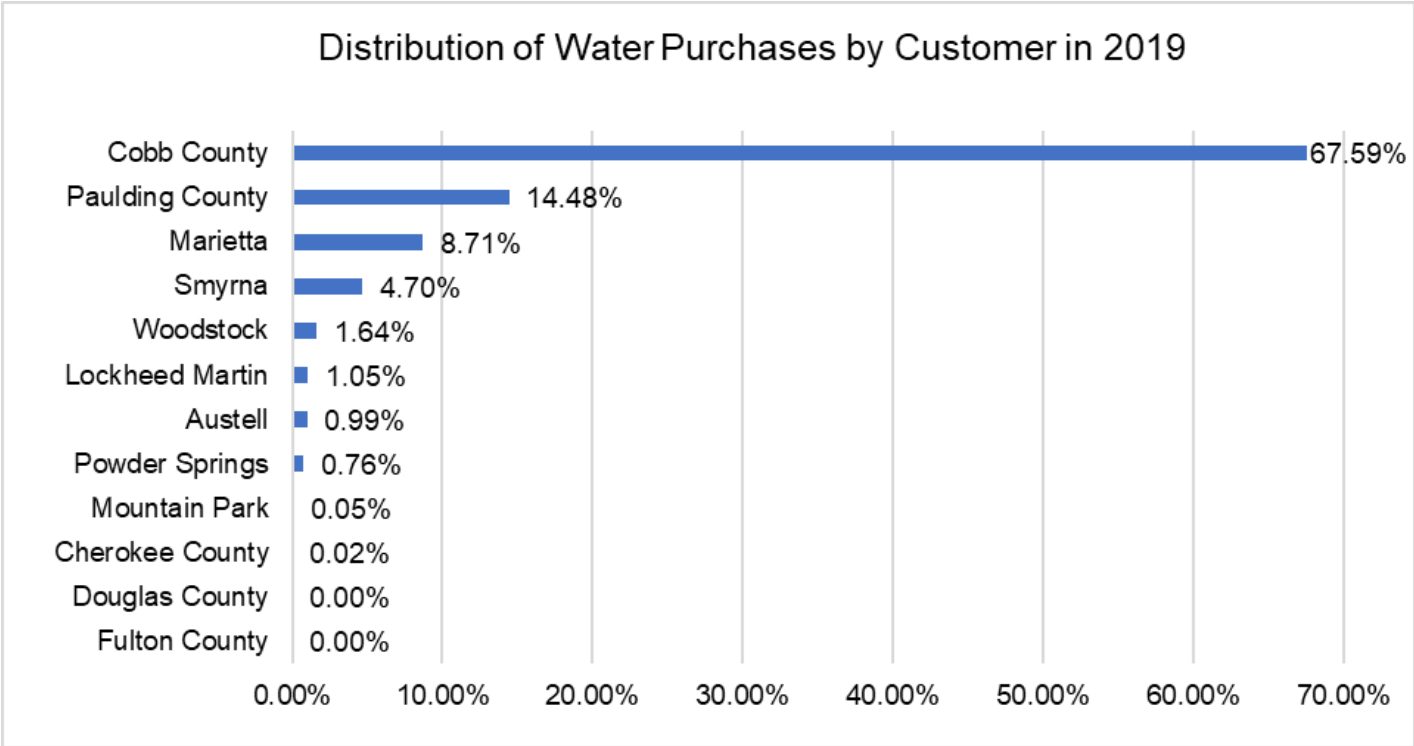
Demographic and economic measures of CCMWA's service area are presented to provide context for CCMWA's business environment. All demographic information is taken directly from the CCMWA's most recent Comprehensive Annual Financial Report and is reported on a fiscal year basis (as of December 31st). Information 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:

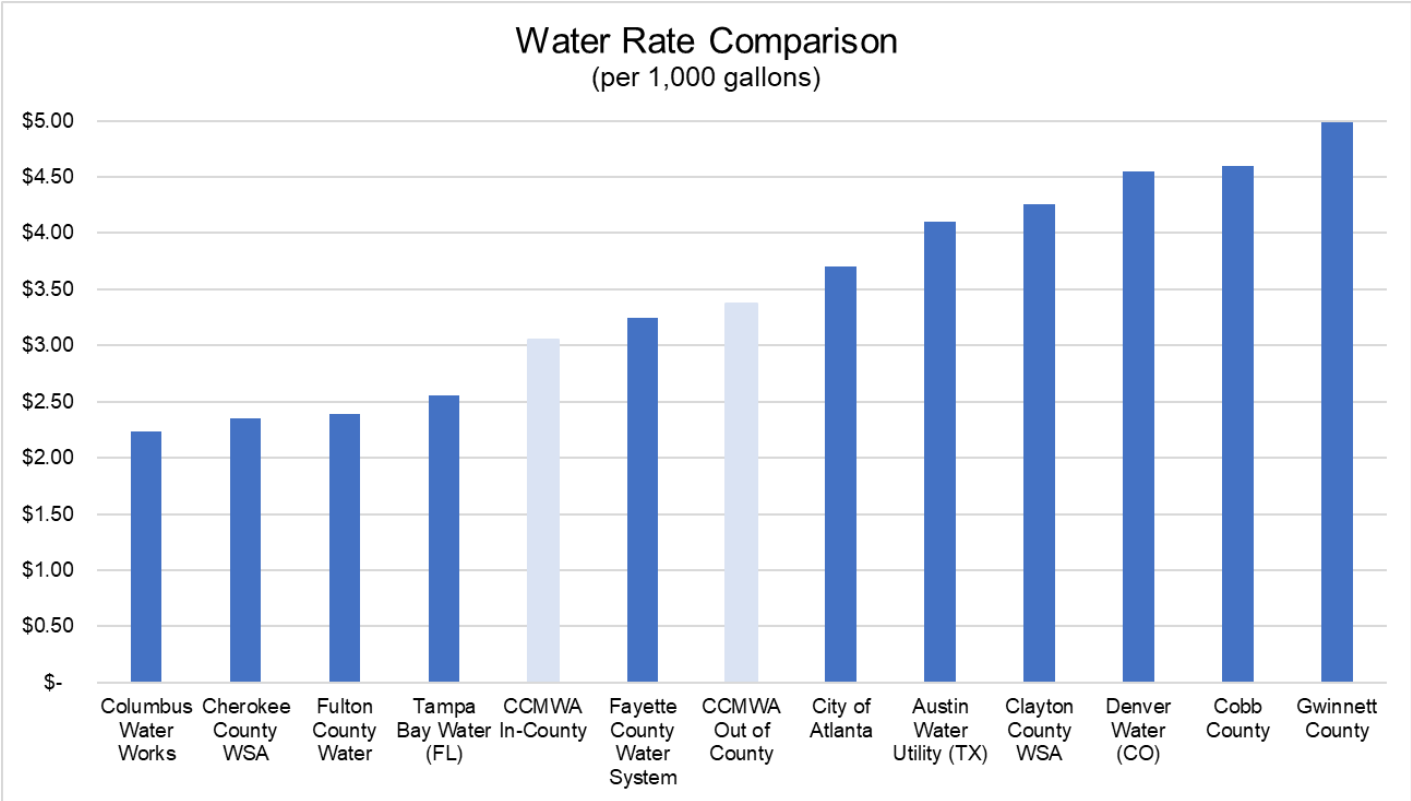
- Cherokee County Water and Sewer Authority (CCWSA)
- City of Austell
- City of Mountain Park
- City of Smyrna
- City of Woodstock
- Cobb County Water System
- Douglasville/Douglas County Water and Sewer Authority (DDCWSA)
- Lockheed Martin Aerospace and Defense Company
- Marietta Board of Lights and 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. The City of Powder Springs had an active contract with CCMWA through June 2019, which terminated upon the sale of their water system to Cobb County Water System. Annual water purchases by customer are shown below.



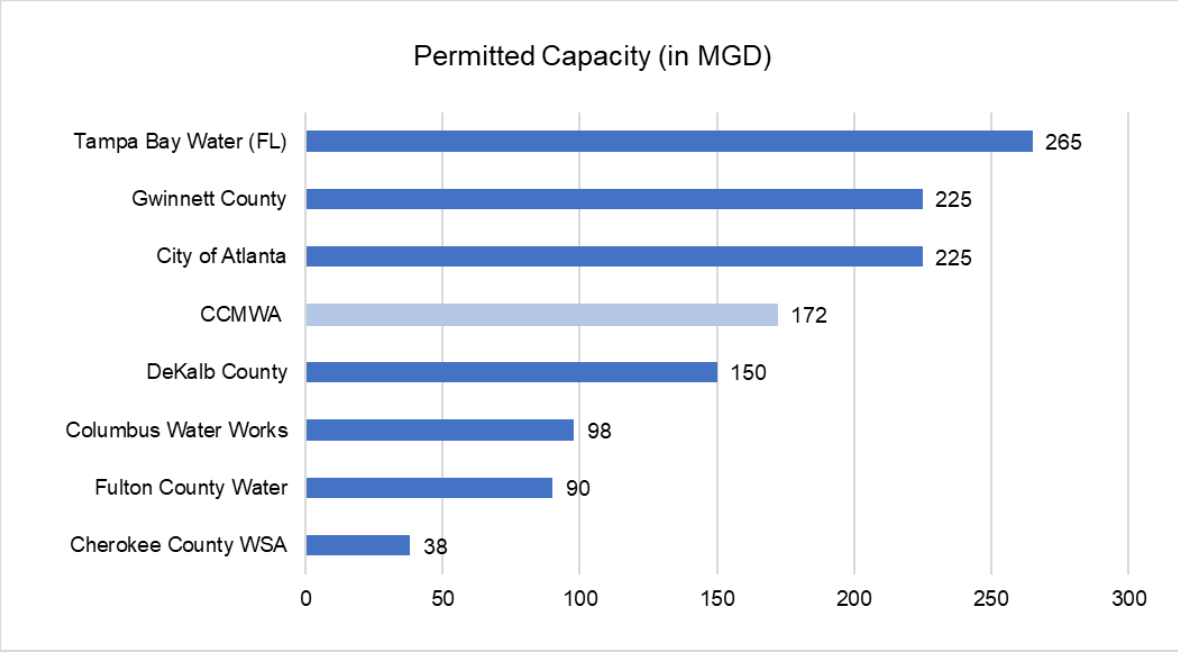
Rate Comparison Information

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.

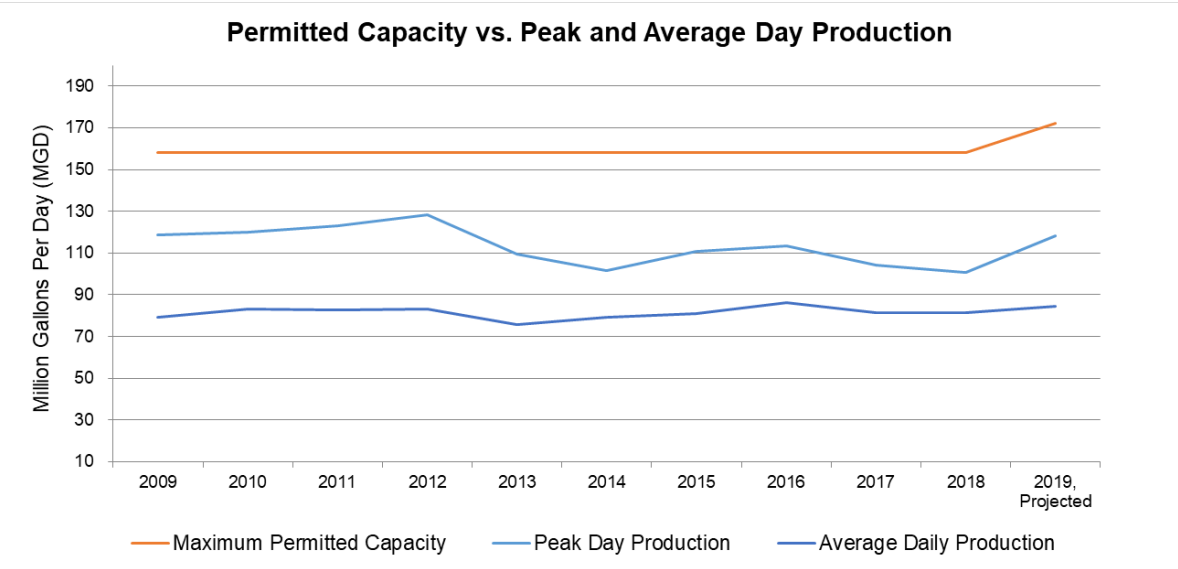


Permitted Production Capacity Comparison Information

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. In 2019, the permitted capacity at the Wyckoff Water Treatment Plant was increased from 72 MGD to 86 MGD to match the plant's withdrawal permit. This increase will allow greater flexibility of production between plants while the production output at the Quarles Water Treatment Plant is reduced due to construction. 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 & Thousand Gallons Produced				
(Operating Expense / Million Gallons Produced) **Includes Depreciation				
Fiscal Year	MG Produced	Operating Expense	\$/MG	\$/K-Gal
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	29,842	48,964,073	1,640.78	1.64
2019, Projected	30,788	48,169,940	1,564.57	1.56

Kilowatt Hours of Electricity Used per Million Gallons of Water			
(KWH Used/ MG Produced)			
Fiscal Year	MG Produced	Kilowatts Used	KW/MG
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	29,842	73,131,071	2,451
2019, Projected	30,788	75,213,095	2,443

Demographic Information

COBB COUNTY-MARIETTA WATER AUTHORITY
DEMOGRAPHIC AND ECONOMIC STATISTICS
LAST TEN YEARS

Unaudited

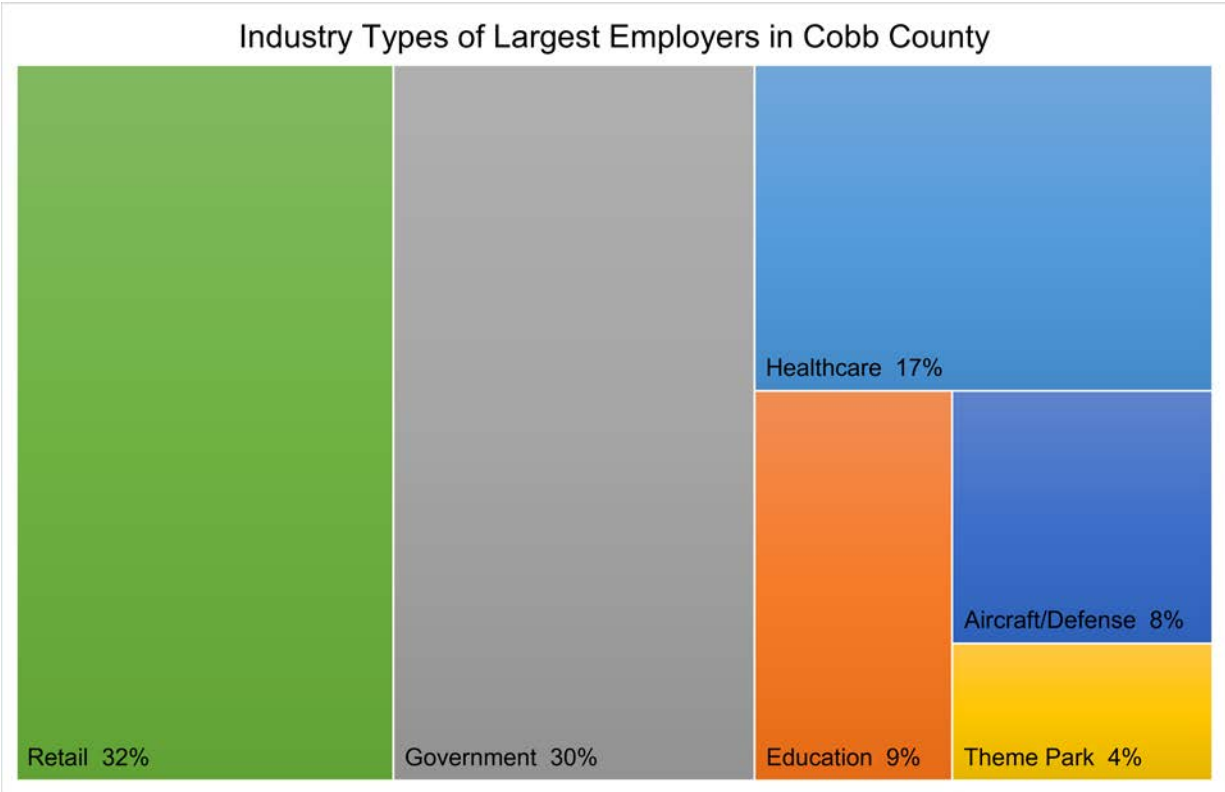
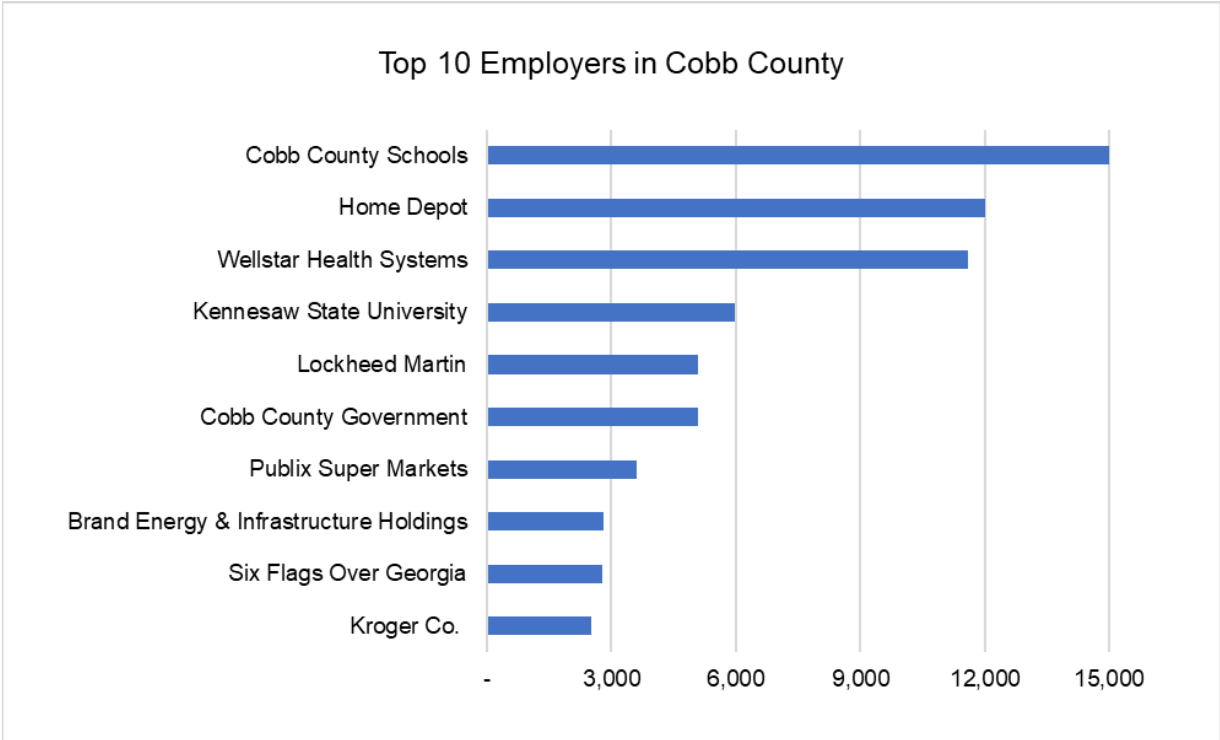
Fiscal Year	Population (1)	Personal Income (1)	Per Capita Personal Income (1)	County Unemployment Rate (2)
2009	684,780	\$ 29,643,900,000	\$ 43,290	9.60%
2010	689,750	30,144,950,000	43,704	9.50%
2011	697,550	30,776,120,000	44,120	8.40%
2012	707,170	31,338,650,000	44,316	7.30%
2013	716,950	32,029,550,000	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%
2018	773,930	37,682,170,000	48,689	3.20%

City	Population
Acworth	22,163
Austell	7,227
Kennesaw	33,433
Marietta	60,203
Powder Springs	14,765
Smyrna	55,467

***Sources:**

- (1) Woods and Poole Economics 2018 Data Pamphlet
(2) Cobb County Office of Economic Development and Cobb County Chamber of Commerce

Employer Demographics in the Cobb County Area



Source: Cobb County Office of Economic Development and Cobb County Chamber of Commerce

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)	2018	4	4	0.89	0.60 – 0.89	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)	2018	10	10	1.0	0.30 – 1.0	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 as N.

Disinfection By-Products, By-Product Precursors and Disinfectant Residuals							
Substance (Unit)	Date Tested	MCL	MCLG	Detected Level	Range	Major Sources	Violation
TTHMs (Total Trihalomethanes) (ppb)	2018	80	n/a	58.0 ¹	15.9 – 71.5	By-products of drinking water disinfection	NO
TTHMs (Total Trihalomethanes) (ppb) - Stage 2	2018	80	0	46.0 ¹	29.0 – 46.0	By-products of drinking water disinfection	NO
HAA5 (Haloacetic Acids) (ppb)	2018	60	n/a	32.0 ¹	13.0 – 39.8	By-products of drinking water disinfection	NO
HAA5s (Haloacetic Acids) (ppb) - Stage 2	2018	60	0	32.0 ¹	19.0 – 32.0	By-products of drinking water disinfection	NO
TOC (Total Organic Carbon) (ppm)	2018	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)	2018	1.0	0.8	0.51	0.09 – 0.51	By-product of drinking water disinfection	NO
Chlorine _{free} (ppm)	2018	MRDL= 4	MRDLG= 4	2.02	0.00 – 2.02	Drinking water disinfectant	NO

Notes: ¹ The highest detected LRAA at site 501

Turbidity							
Substance	Date Tested	MCL	MCLG	Level Found	Range	Typical Source	Violation
Turbidity ¹	2018	TT = 1 NTU	0	0.20	n/a	Soil runoff	NO
		TT = percentage of samples <0.3 NTU		100%	n/a		

Note: ¹ Turbidity 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 <i>more</i> 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	04/2018 08/2018	TT	n/a	Exceeds 5.0% TC+ samples in a month	0.45% ² 0.88% ³	Naturally present in the environment	NO
E. coli	None	One Positive Sample ¹	0	n/a	0.00%	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.

³ Two positive samples out of 226 samples tested during the month.

Performance Indicators

Return on Assets			
<i>(Net Income/Total Assets)</i>			
Fiscal Year	Net Income	Total Assets	Return on Assets
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	42,881,718	708,927,648	6.05%
2019, Projected	51,306,870	732,891,493	7.00%
AWWA Benchmark (Median Quartile, 2012)			2.20%

Debt Ratio	
<i>(Total Liabilities/Total Assets)</i>	
2013, Audited	19.3%
2014, Audited	16.3%
2015, Audited	16.0%
2016, Audited	14.0%
2017, Audited	11.7%
2018, Audited	10.8%
2019, Projected	7.6%
AWWA Industry Benchmark	34.0%

Million Gallons per Day of Water Delivered per Full Time Equivalent			
<i>(Average MGD Delivered/Number of FTEs)</i>			
Fiscal Year	MGD	FTEs	MGD per FTE
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	84.3	116.0	0.73
2019, Projected	77.7	116.0	0.67

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