



2021

# Adopted Budget

Cobb County-Marietta Water Authority

Marietta, GA

Adopted December 21, 2020

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## BUDGET MESSAGE

The 2021 budget book 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 and outlines future capital projects in the five-year plan. The 2021 operating 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 CCMWA.

Cobb County-Marietta Water Authority's main 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 our 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 required to support the Capital Improvement Plan. 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 2021 Budget continues to demonstrate the Authority’s commitment to stewardship in meeting its objectives.

The coronavirus pandemic has been the top story of 2020, but, while affecting the patterns of work at CCMWA, it has not prevented us from meeting our mission “to provide sustainable and reliable drinking water that supports public health, public safety and the economic vitality of the region.” Our commitment to long-term planning for finances, infrastructure and workforce has paid dividends in stability during a year of chaos.

In 2020, we had planned for our second largest customer to begin reducing its demands on our system when it began producing water from its new reservoir. This did not happen, resulting in net income significantly higher than budgeted during the second half of the year. In 2021, however, sales to this customer are expected to reduce early in the year, with further reductions as the year progresses. Our long-term financial modeling mitigates the complete loss of sales to this customer over time.

The Operating Budget herein recognizes minimal increases in labor, power and chemical costs, as well as outsourced services. The Capital Budget emphasizes our ongoing priority of Asset Renewal and Replacement and allows us to fully fund the timely replacement of depreciated assets with accumulated cash, per our financial policies.

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 2021 Operating and Capital Budget is the outcome of a full year of tracking, analysis, planning and prioritizing by CCMWA’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 2021 Budget includes a 2.5% increase in each of our rate structures. This increase is higher than the total Consumer Price Index (CPI) of 1.2%, but less than the sector-specific CPI for Water and Sewer and Trash Collection Services of 3.3% (November 2019 – November 2020). This modest wholesale price increase will allow us to continue to fund our ongoing infrastructure renewal efforts and maintain our award-winning operation of our treatment and delivery systems.

Respectfully,

*Glenn M. Page*

Glenn M. Page, P.E.

General Manager

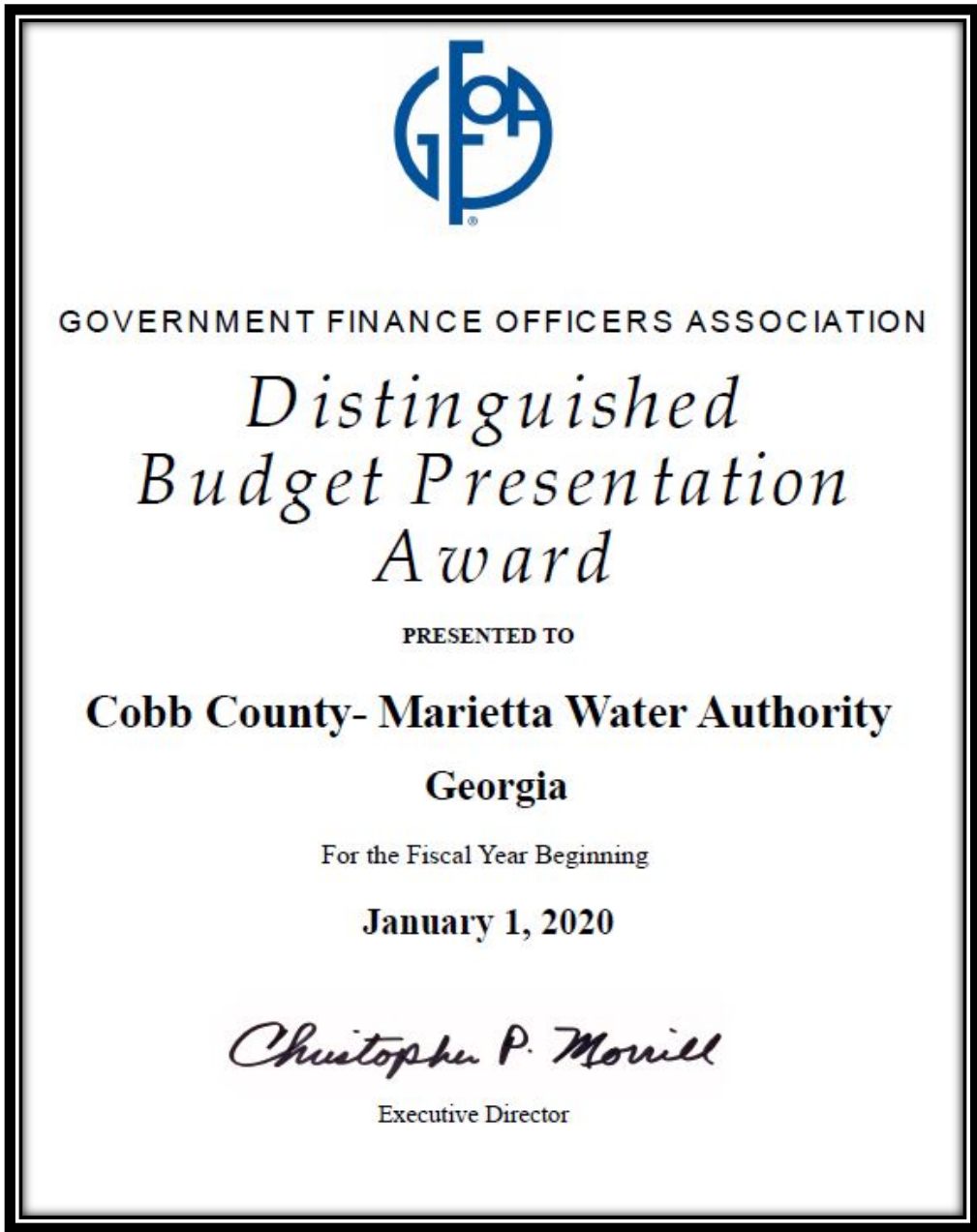
## Consolidated Budget – Fiscal Year 2021

	2020 Budget	2020 Projected Actual	Variance - Favorable (Unfavorable)	2021 Budget	Increase (Decrease) over 2020 Budget (\$)	Increase (Decrease) over 2020 Budget (%)
Operating Revenues	\$89,145,973	\$93,751,070	\$ 4,605,098	\$ 89,664,617	\$ 518,645	0.58%
Operating Expenses	49,679,994	47,963,076	1,716,918	51,559,378	1,879,384	3.78%
<b>Operating Income</b>	<b>39,465,979</b>	<b>45,787,995</b>	<b>6,322,016</b>	<b>38,105,240</b>	<b>(1,360,739)</b>	<b>-3.45%</b>
Other Income	3,169,647	7,208,055	4,038,409	3,345,952	176,305	5.56%
Other Expenses	1,802,392	1,802,392	-	1,740,000	(62,392)	-3.46%
Extraordinary Items	150,000	-	150,000	100,000	(50,000)	-33.33%
<b>Net Income</b>	<b>\$40,683,233</b>	<b>\$51,193,659</b>	<b>\$10,510,425</b>	<b>\$ 39,611,191</b>	<b>\$ (1,072,042)</b>	<b>-2.64%</b>

	2020 Budget	2020 Projected Actual	Variance - Favorable (Unfavorable)	2021 Budget	Increase (Decrease) over 2020 Budget (\$)	Increase (Decrease) over 2020 Budget (%)
Aged Pipe Replacements	\$18,741,310	\$13,951,313	\$ 4,789,997	\$ 24,981,676	\$ 6,240,366	33.30%
Blow-Off Replacements	-	15,000	(15,000)	1,100,000	1,100,000	100.00%
Pipeline Improvements	628,000	408,000	220,000	5,769,000	5,141,000	818.63%
Water Treatment Plants	30,543,690	21,865,587	8,678,103	25,999,015	(4,544,675)	-14.88%
Water Storage Tanks	2,603,320	2,550,620	52,700	250,000	(2,353,320)	-90.40%
Asset Renewal & Replacement	13,313,582	8,840,000	4,473,582	7,352,502	(5,961,080)	-44.77%
<b>Total Capital Improvements</b>	<b>65,829,902</b>	<b>47,630,520</b>	<b>18,199,382</b>	<b>65,452,193</b>	<b>(377,709)</b>	<b>-0.57%</b>
Reservation for DOT Projects	1,500,000	1,927,747	(427,747)	1,361,480	(138,520)	-9.23%
Contingency	2,000,000	1,186,240	813,760	2,000,000	-	0.00%
<b>Total Capital Expenditures</b>	<b>\$69,329,902</b>	<b>\$50,744,507</b>	<b>\$18,585,395</b>	<b>\$ 68,813,674</b>	<b>\$ (516,228)</b>	<b>-0.74%</b>

### Distinguished Budget Presentation Award

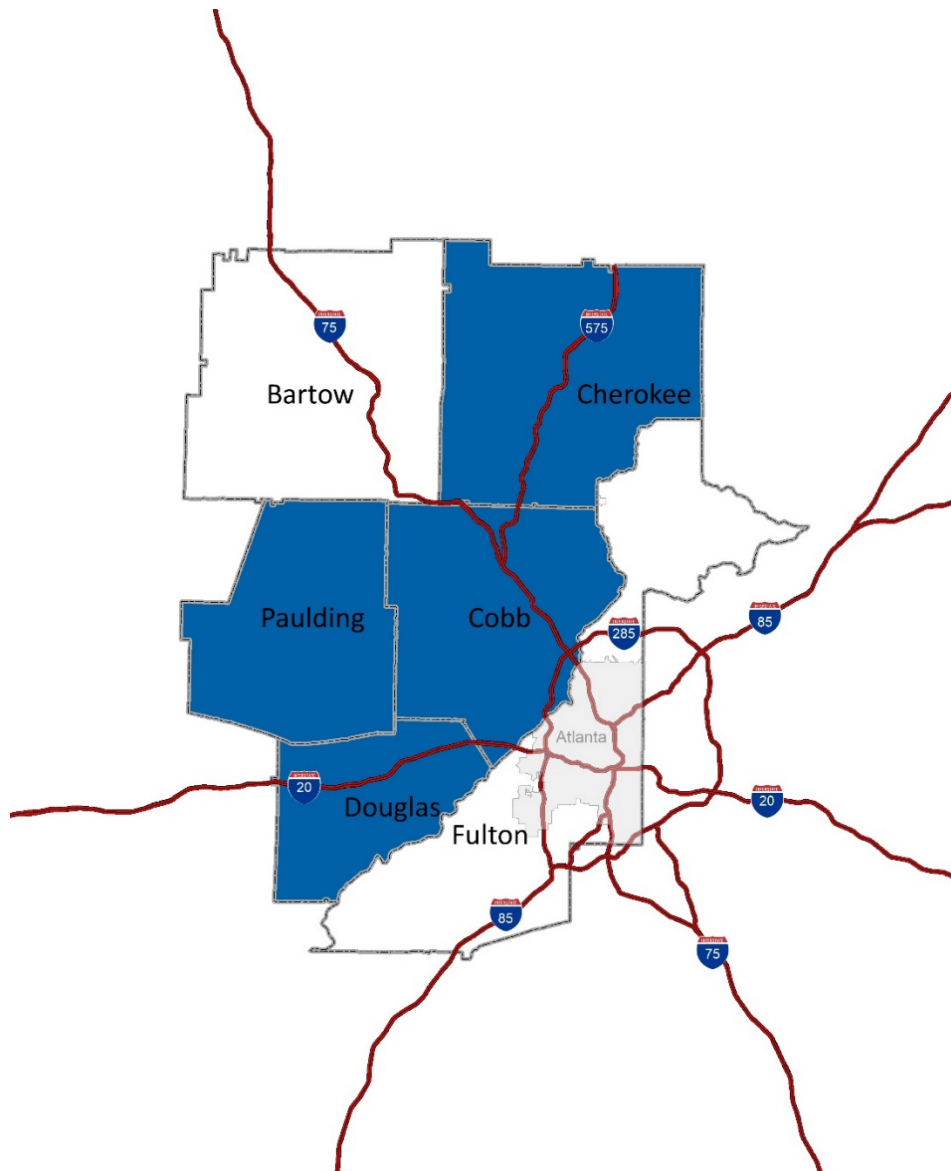
Cobb County-Marietta Water Authority was presented the Distinguished Budget Presentation Award by the Government Finance Officers Association (GFOA) for the Fiscal Year 2020 budget document. This award reflects our commitment to meeting the highest principles of governmental budgeting. To receive this award, the 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 8<sup>th</sup> year of submitting a budget document to GFOA for consideration and receiving the Distinguished Budget Presentation Award. The 2020 budget document also received special recognition for Performance Measures and Capital Budgeting.





## GENERAL INFORMATION

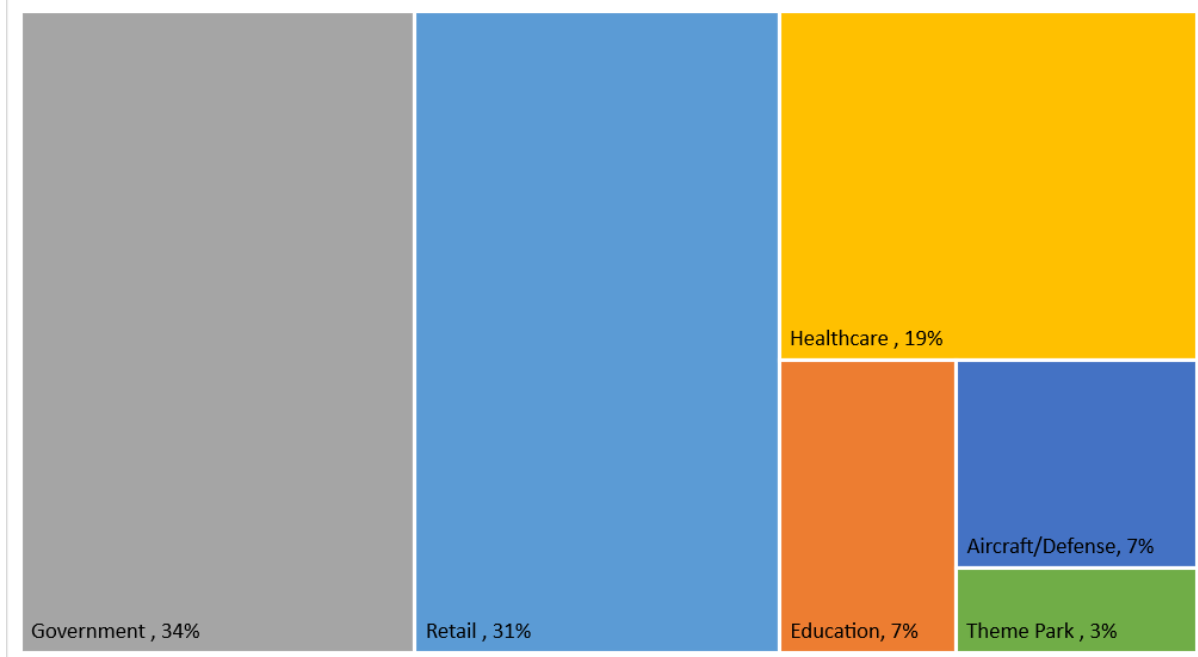
Cobb County-Marietta Water Authority (CCMWA) was created in 1951 by an act of the General Assembly of the State of Georgia as a political subdivision of the state with the sole function of supplying drinking water to wholesale customers. CCMWA serves wholesale customers north of Metro Atlanta, Georgia 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 774,300 according to Woods & Poole Economics 2019 Data Pamphlet and is the third most-populous county in Georgia.



### Percent of 2020 Water Sales by Volume

Customer	% of Sales	Location
Cobb County Water System	66.92%	Cobb County, GA
Paulding County	15.54%	Paulding County, GA
City of Marietta	8.78%	Cobb County, GA
City of Smyrna	4.86%	Cobb County, GA
City of Woodstock	1.72%	Cherokee County, GA
Lockheed Martin	1.12%	Cobb County, GA
City of Austell	0.99%	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 our 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**



**Mike H. Boyce,  
Member**



**Griffin L. Chalfant,  
Member**



**James A. Balli,  
Member**



**Charles A. Welch,  
Member**

## Executive Team



**Glenn Page**  
*General Manager*



**Cole Blackwell**  
*Director of Operations &  
Assistant General  
Manager*



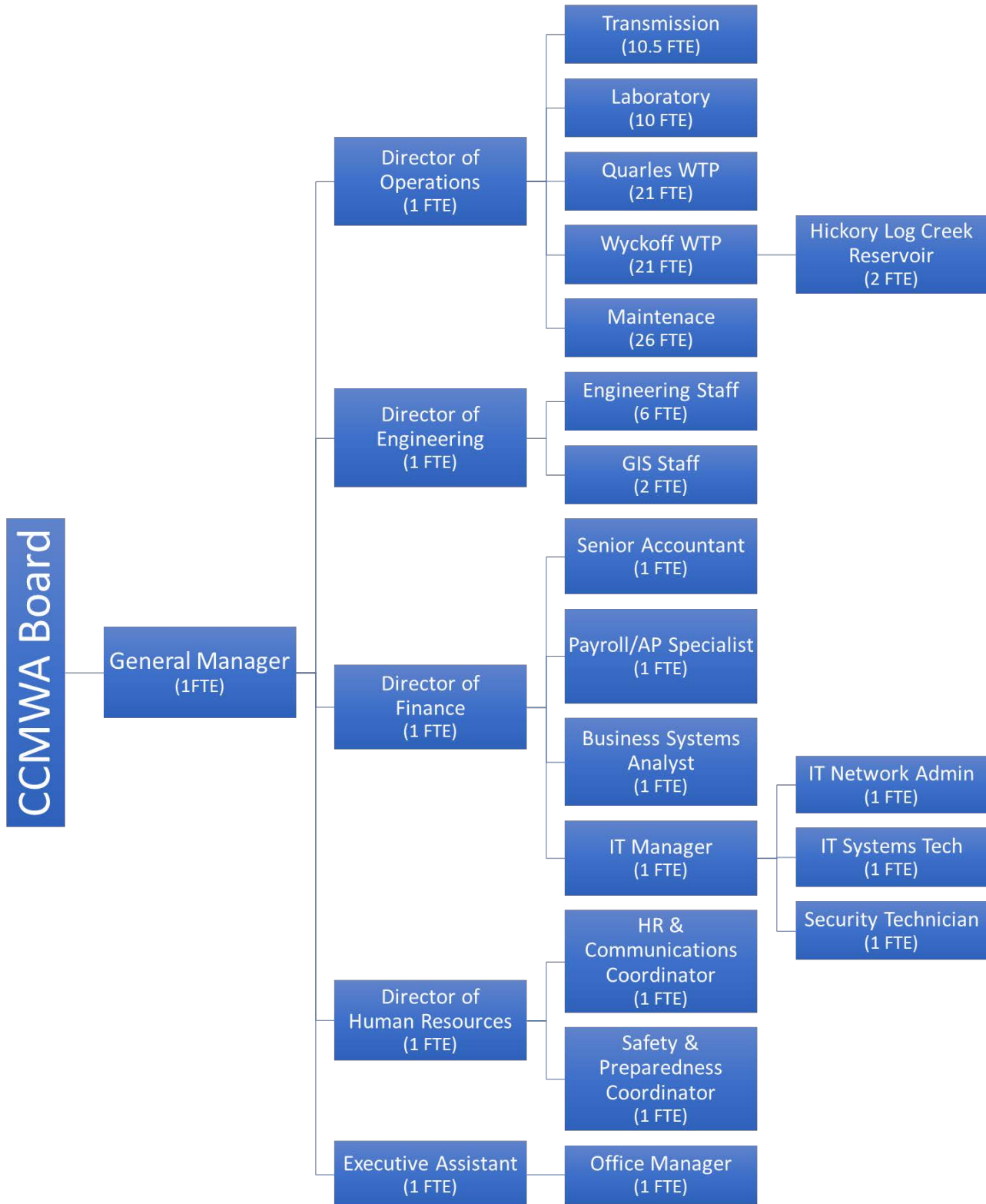
**George Kaffezakis**  
*Director of Engineering*



**Allison Clements**  
*Director of Finance*



Organizational Chart



FTE – Full Time Equivalent  
 116 Full Time Equivalent positions for Fiscal Year 2021  
 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 organization. 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, Human Resources, Finance, Engineering, Information Technology, 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 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 2021 budget year and beyond are:

- Global pandemic
- 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 we plan to address each of these items in the coming years.



## Global Pandemic

The world faced an unprecedented year in 2020 due to the COVID-19 pandemic and in response, CCMWA's greatest priority became the task of maintaining a healthy workforce. CCMWA's water treatment plants are operated 24 hours a day and staffed by licensed water treatment operators. Georgia Environmental Production District rules require that one operator with a Class I license must be on each shift at each plant. Ensuring that enough Class I licensed operators are available to work is essential to CCMWA's mission of providing drinking water to over 1 million residents of the Cobb County area. Potable water for hand washing has become a vital component for battling the transmission of COVID-19 and our staff takes great pride in their role of ensuring that the community has safe, reliable drinking water.

The first step taken by CCMWA to ensure adequate staffing levels was to enter a limited operational status in March 2020. During this status, employees that were able to work remotely were assigned alternative work locations and employees that cannot, such as operations staff, were put on rotating schedules to limit contact between shifts. Some employees were held in reserve and asked to be ready to report to work when needed. As the year progressed, we began bringing employees back to their usual work locations and following CDC guidelines for masks, surface disinfection, and social distancing.

Additional guidelines were put in place to ensure the safety of our employees, including the suspension of in-person meetings and travel for education and training purposes. Many employees were unable to attend planned conference and professional trainings, which resulted in most divisions not spending their allocated travel and education budgets for 2020.

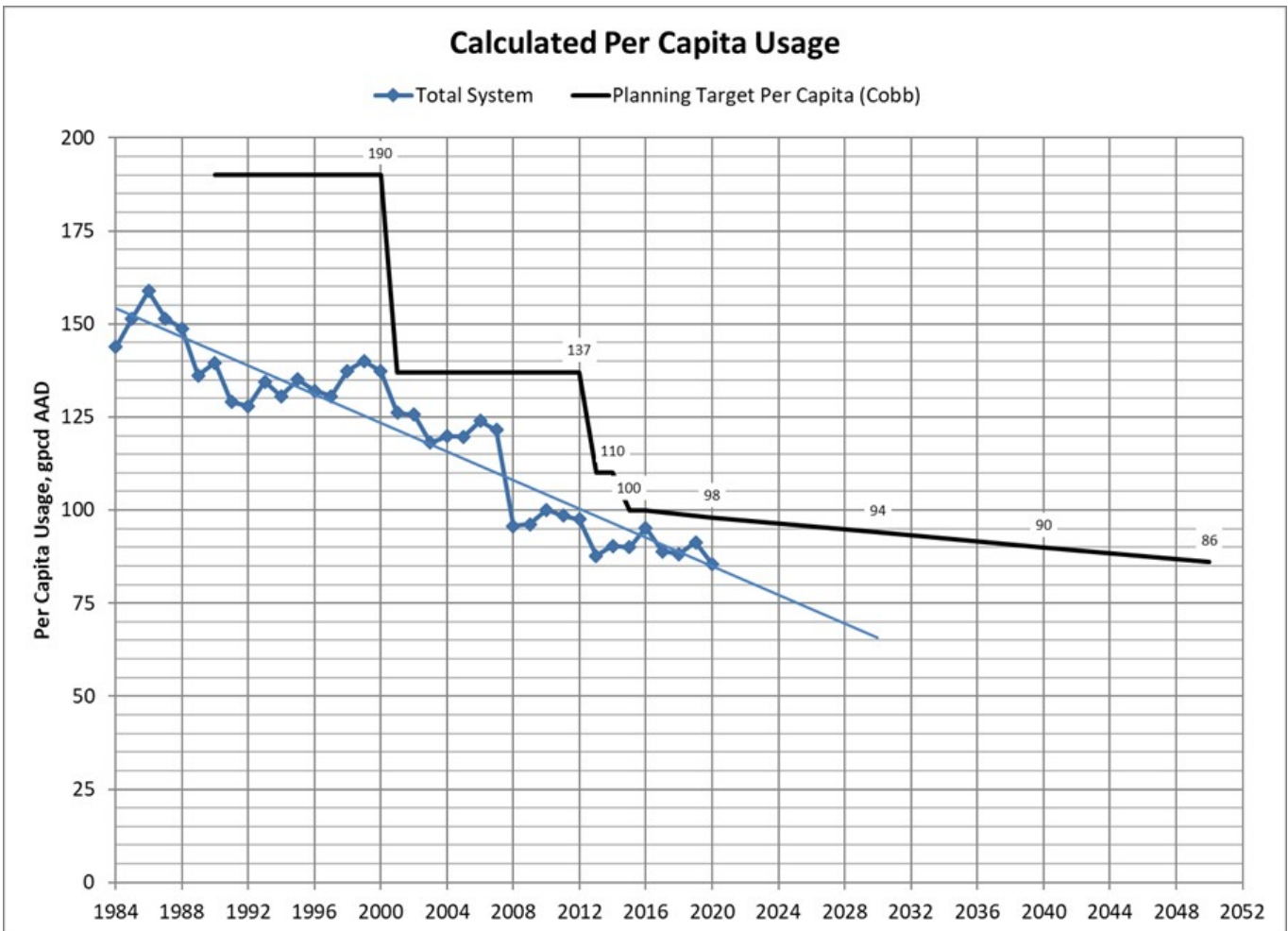
Unlike many government entities, which saw declining revenues during the pandemic, CCMWA did not have any unanticipated changes in water sales, which is our only revenue source. Our original projection for 2020 water demand was reduced from 81.8 million gallons per day (MGD) to 77.7 MGD, in anticipation of reduced purchases from our second largest customer (see [Customer Changes](#) section). The budget for water sales revenue in 2020 was developed based on the revised demand projection of 77.7 MGD; however, no changes were made by our second largest customer, resulting in higher than budgeted water sales revenue. Actual demand for 2020 is estimated to be 81.9 MGD, which is in line with our original, non-reduced projection for the year of 81.8 MGD. This indicates that water demand for 2020 was average for our service area and there was not an increase in water demand due to the community's compliance with CDC handwashing and sanitizing guidelines.

CCMWA will continue its efforts to maintain a healthy workforce into 2021 and has increased the budget allocations for cleaning services, janitorial supplies, and safety supplies to ensure all work areas are sanitized regularly and adequate personal protective equipment is available to employees and guests. We will continue to monitor the status of the virus in our community and adjust employee schedules as needed; however, the 2021 budget was developed with optimism that certain activities, such as conferences and training classes, will return at some point in the year.

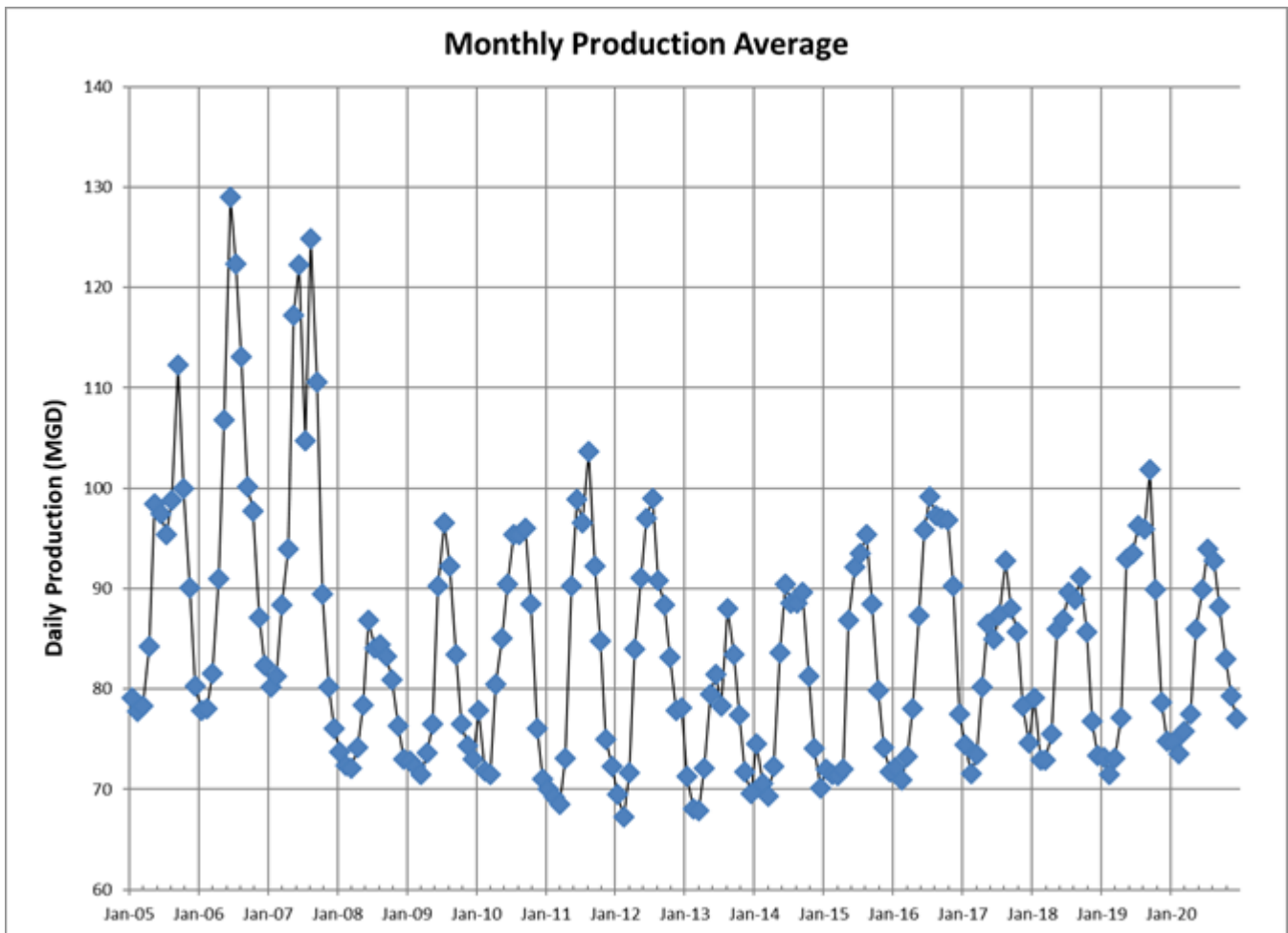
### Per Capita Demand

The population of Cobb County, the largest area served by CCMWA, has grown by more than 86,500 residents since 2010. The Atlanta Regional Commission estimates Cobb County’s population grew by 8,200 people in the last year and the county is ranked third in the 10-county Atlanta region for population growth between 2010 and 2020. 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 years since 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 2020, 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 match the trend line of actual total system demand.



The downward trend of per capita water demand can also be seen in our 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 the 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

CCMWA has been planning for a reduction in water demand since 2018, due to infrastructure development 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 was originally scheduled for completion in early 2020 but due to delays, Paulding County now plans to begin operating the facilities in January 2021. We expect a slight reduction in water purchases by Paulding County at that time with a gradual downward step in water purchases over the remainder of the 2021 fiscal year, up to 8 million gallons per day. This reduction has been included in future water sales projections and all future capital projects related solely to delivering water to Paulding County have been removed from the Capital Improvement Plan.

During 2019, a new contract was negotiated and finalized with Paulding County in response to their 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. The demand forecast for 2021 assumes that Paulding County will continue purchasing water at their current out-of-county volumetric rate during 2021 and move to the non-sole-source rate structure in 2022.

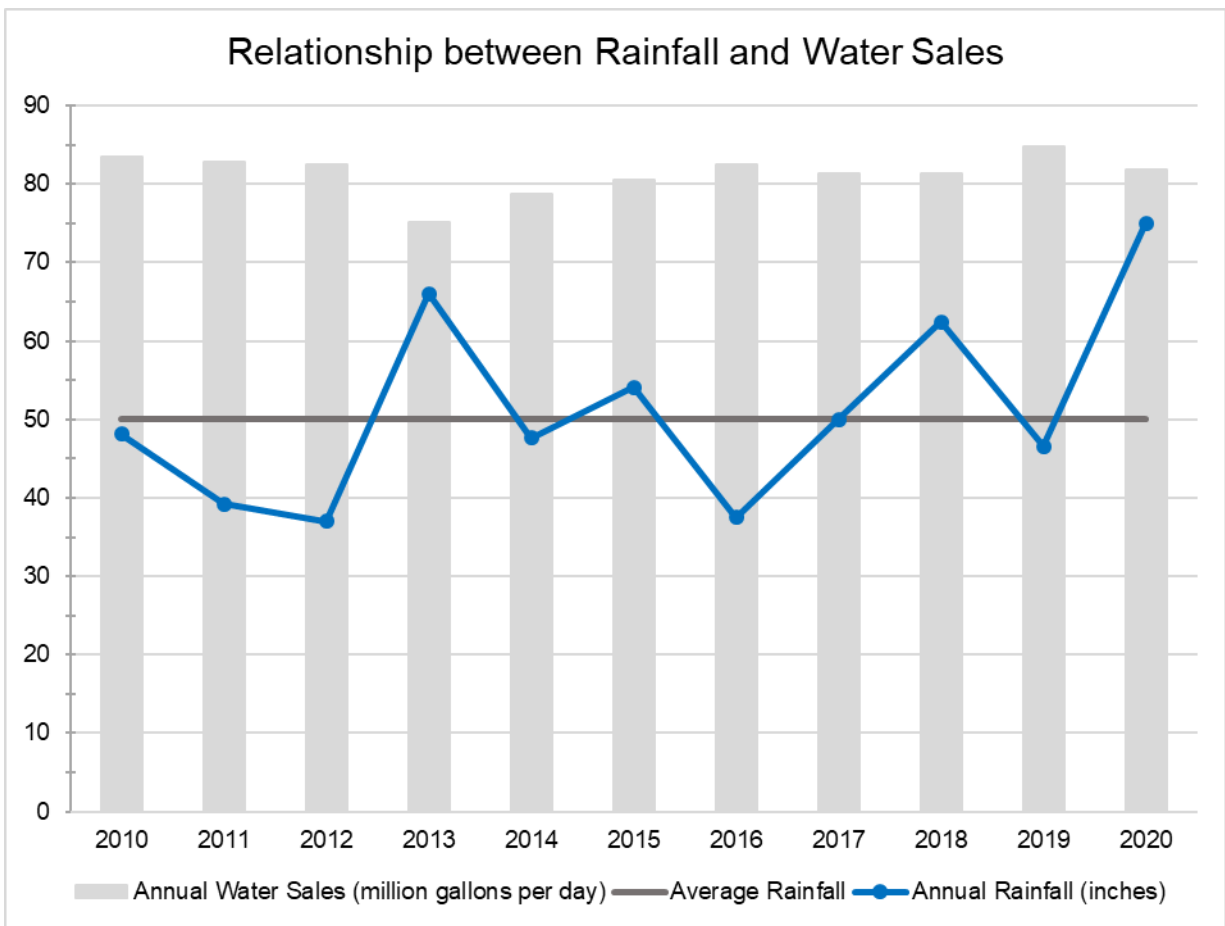
The terms of Paulding County's contract are based on the non-sole-source rate structure developed in 2017 and first used with Douglasville-Douglas County Water and Sewer Authority. Non-sole-source customers are those that operate their own water treatment and transmission system and purchase water from 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 the current in-county sole-source rate.

We plan to 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, we can more equitably allocate capital infrastructure costs between all CCMWA customers. Through careful planning and review of future infrastructure needs, we have 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, we can more effectively estimate future water demand.

When annual rainfall is above average, lower demand for water often occurs. This relationship can be seen in the graph below, where below average rainfall in 2019 drove water sales up to almost 85 MGD. Typically, rainfall in excess of the annual average will result in water sales below 80 MGD; however, in 2020 sales remained above this mark despite estimated annual rainfall of 75 inches, the highest rainfall experienced by our service area in the last 10 years. This may have been caused by increased water usage for personal hygiene during the pandemic, as well as the timing of the rainfall. Below average rainfall in warmer months has a greater impact than at other times of year and during 2020, less rainfall occurred during the summer than in cooler months.



Water sales for 2020 are projected to be 81.9 MGD and exceed the budget projection of 77.7 MGD due to Paulding County continuing to purchase water solely from CCMWA throughout the year. Water sales for 2021 are projected to decrease to 76.5 MGD, as Paulding County begins producing their own water. 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, 44% 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 2021 in the following ways:

- Employees currently 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.

Due to social distancing guidelines, most of the development training for 2020 was delayed and is now planned for 2021. If it is determined that in-person training is still unsafe next year, we will consider providing some development courses to employees through a digital format.

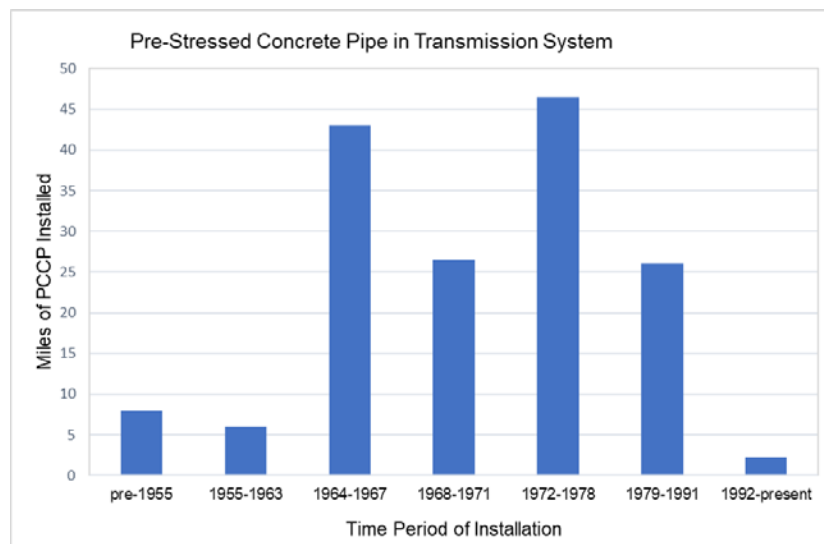


The communications series has been one of the most successful internal development programs offered to employees in the past. The series focuses on written and verbal communication skills, and employees that participate in this training end the course by giving a work-related presentation to a group of peers and supervisors. Since it was first offered, 17 employees across all levels of the organization have completed the course to practice their written and verbal communication.

## Aging Infrastructure

Infrastructure sustainability was defined as a key area of focus in CCMWA's Strategic Plan. 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. The second project was completed in 2020, which replaced 5,200 feet of PCCP with 42" ductile iron pipe leaving the Wyckoff plant near Mars Hill Road and U.S. Highway 41. Three projects from this program will be under design or in construction during 2021 with a combined length of 12.2 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.

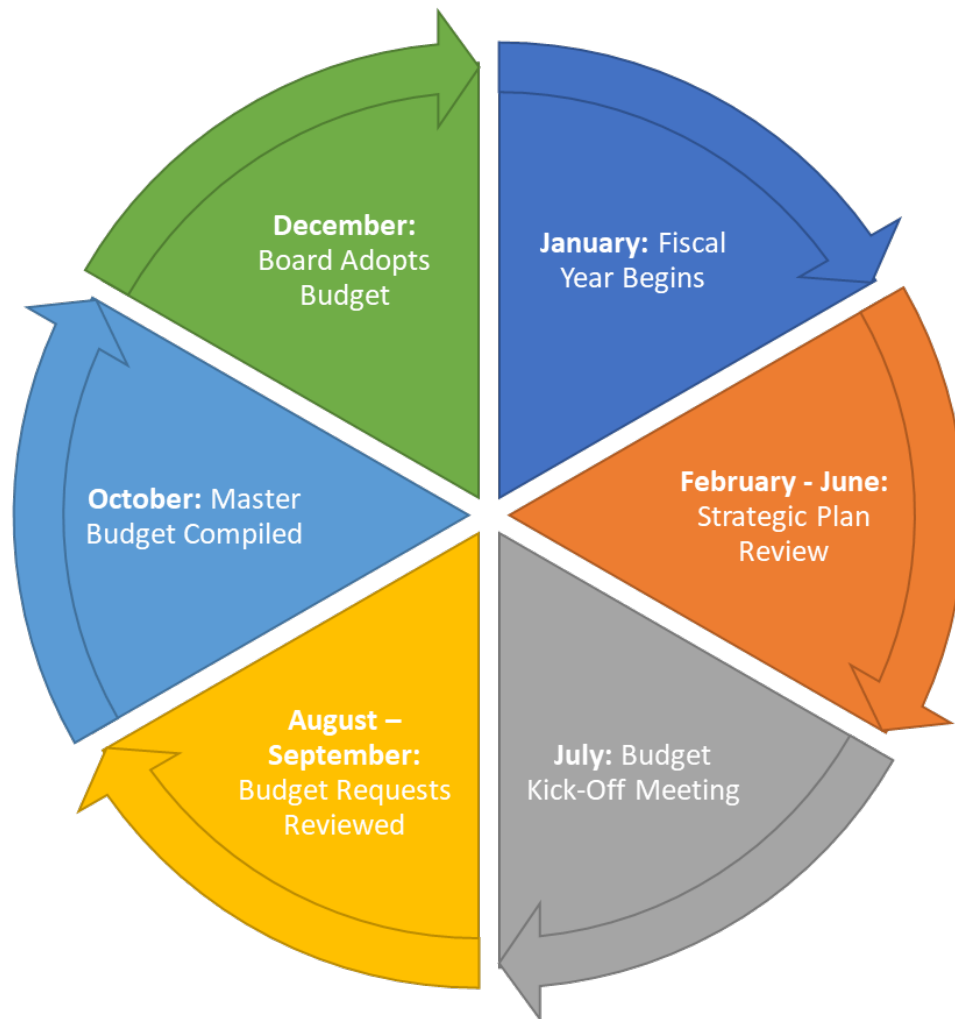
To facilitate the Capital Improvement Program (CIP), the CCMWA Board has implemented a plan for stabilized rate increases that span a set number of years instead of assessing rate increases based on the needs of a single year. Each year the Board reviews the 5-year CIP and recommends a rate increase for the next budget year and a planning estimate to be used for the remaining four years covered by the 5-year CIP. The establishment of a planning estimate aids CCMWA and its customers in forecasting and budgeting. The current rate plan includes a 2.5% increase for 2021, with a planning estimate of annual 2.5% increases for 2022-2025. Each year's adopted increase will be reviewed during the planning and development of the 5-year CIP to ensure that it supports our future capital plans and will be adjusted based on changes to the capital plan and each year's financial outcome.

The information gathered by each planning process is evaluated through a 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 July 13, 2020 and by Moody's Investor Service on December 9, 2019.

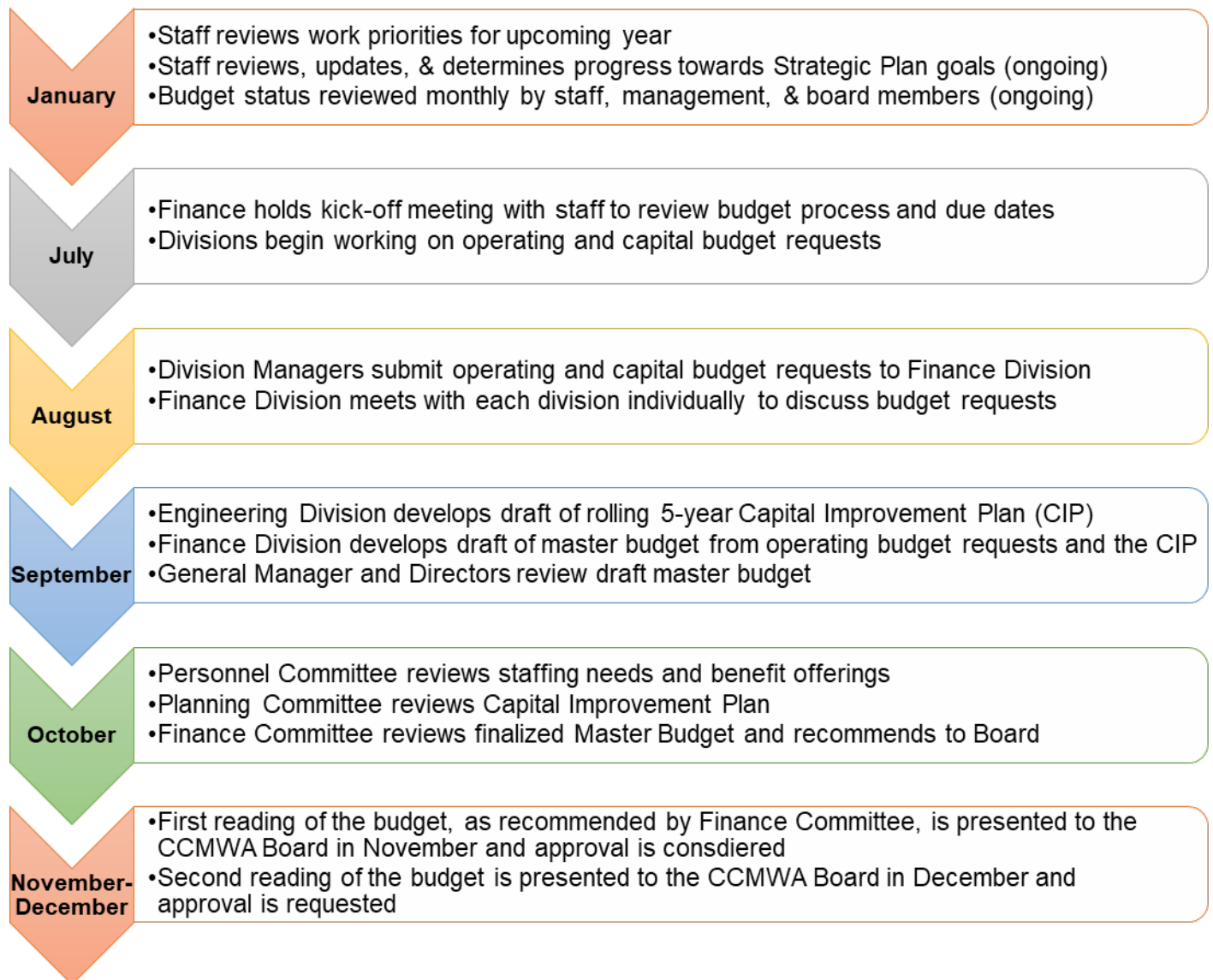
## Budget Process

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 our mission. The budget process 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.



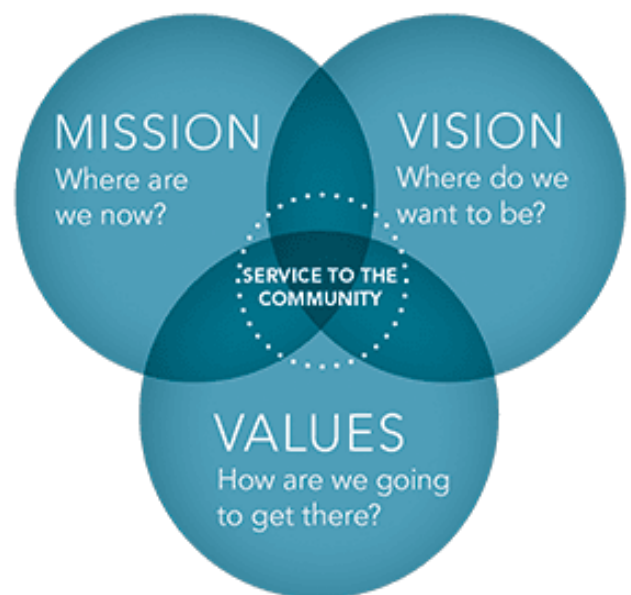


## Strategic Plan Implementation

CCMWA planned to develop and finalize a new strategic plan during 2020 for the years 2021-2025. However, progress towards that goal was put on hold during the pandemic. The initiatives highlighted in CCMWA's 2016-2020 Strategic Plan were continued for another year, to serve as a guiding force during budget development. Over the five years covered by the plan, CCMWA staff devoted time and energy to improve performance in these areas. Nine initiatives were outlined in the 2016-2020 Strategic Plan:

- **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 organization, that were responsible for driving and overseeing our progress towards each of the nine initiatives. During 2020, the Executive Team reviewed the progress made towards each of the nine initiatives and found that many of the individual goals had been achieved. However, several of the initiatives will require ongoing focus for the next several years. In 2021, the Executive Team will review the results of SWOT (Strengths, Opportunities, Weakness, Threats) analysis workshops attended by staff at all levels of the organization. The results of these workshops, along with the team's review of achieved goals, will guide the creation of CCMWA's next strategic plan, to be finalized in mid-2021.



## 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: 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, require a contribution from staff at all levels, or allow CCMWA to fulfill its core mission and maintain solvency.

### Entity-Wide Financial and Non-Financial Goals

#### **Review of 2020 Short Term Financial Goals**

- The Authority will plan for, develop, and adhere to a balanced budget for the current fiscal year. *Completed*
- The Authority will evaluate options to amend the Capital Improvement Plan to avoid issuance of debt to fund renewal-type 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 while maintaining current levels of service and fiscal stability. *Completed*
- The Authority will maintain unrestricted cash reserves equivalent to six months of budgeted operating expenses throughout the year. *Completed*

#### **Review of 2020 Long-Term Financial Goals**

- The Authority will work 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 by net income in 2020*
- 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 2040*
- 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 2020 and a 2.5% rate increase is planned for 2021*

### **Review of 2020 Short-Term Non-Financial Goals**

- The Authority will continue to use drone technology to enhance processes and GIS records related to easements and buried assets. *Ongoing – in addition, use of drone technology was expanded to calculate the volume of material stored on the residuals yard and to document construction progress on numerous capital projects in 2020.*
- The Authority will evaluate its water treatment strategy to optimize for lead and copper corrosion control. *Ongoing*
- 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. *Completed – assessment was submitted in February.*
- The Authority will complete a comprehensive Emergency Response Plan in 2020 in accordance with requirements in the 2018 America's Water Infrastructure Act. *Completed – plan was submitted in August.*
- The Authority will continue to evaluate the structural integrity of aging large diameter pre-stressed concrete cylinder pipe. *Ongoing – critical pipelines and valves will continue to be monitored.*
- The Authority will continue efforts related to workforce development through internal training programs focused on computer skills, communication skills, and supervisory training. *Ongoing – no in-person trainings were conducted in 2020 due to COVID-19 and options for delivering training in the future are being reviewed.*

### **Review of 2020 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 11 consecutive years in meeting this goal.*
- CCMWA will continuously prepare for future regulatory changes through internal evaluation and participation in research opportunities. *CCMWA continues to participate in Water Research Foundation efforts. In addition, bench-scale testing for optimization of corrosion control in an effort to stay ahead of the Revised Lead and Copper Rule is near completion, with a possible system-wide pilot test in 2021.*
- CCMWA will secure sufficient water resources for current and future customers of the Authority. *The Final Environmental Impact Statement (FEIS) related to the reallocation of Allatoona Lake for additional water supply for CCMWA was completed in late 2020 by the U.S. Army Corps of Engineers, recommending the requested storage allocation to meet CCMWA's anticipated 2050 demands. A final decision related to equitable apportionment of Chattahoochee River water for Georgia water supplies (including CCMWA) is pending in the U.S. Supreme Court. In addition, participation (including a Board seat) in the recently chartered National Water Supply Alliance*

*allowed direct input on the National Water Supply Rule being considered by United States Army Corps of Engineers (withdrawn in 2020).*

- 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. *CCMWA's proposed accounting methodology was included in the FEIS mentioned above, but was not the Corps' "recommended alternative." CCMWA comments on the FEIS and a placeholder lawsuit related to the accounting (currently stayed) will continue to pursue this approval.*
- 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 FEIS related to the reallocation of Allatoona Lake for additional water supply for CCMWA was completed in late 2020 by the U.S. Army Corps of Engineers, recommending the requested storage allocation to meet CCMWA's anticipated 2050 demands.* 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. *CCMWA continues to participate in funding and direction of legal efforts to secure future water supplies from the Chattahoochee. A final decision related to equitable apportionment of Chattahoochee water for Georgia water supplies (including CCMWA) is pending in the U.S. Supreme Court.*
- 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 2020, leading to an increased number of internal job candidates being selected for higher positions.*

**2021 Short Term Financial Goals**

- The Authority will plan for, develop, and adhere to a balanced budget for the current fiscal year.
- The Authority will evaluate options to amend the Capital Improvement Plan to avoid issuance of debt to fund renewal-type 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 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 the year.

**2021 Long-Term Financial Goals**

- The Authority will work 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.

**2021 Short-Term Non-Financial Goals**

- The Authority will continue to use drone technology to enhance processes and 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 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.
- The Authority will review its performance review process to ensure mid-year and annual performance reviews align with each position’s responsibilities and our long-term goals.
- The Authority will develop and issue an updated Strategic Plan for the years 2021 through 2025.

**2021 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.
- 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 develop a sustainable workforce of qualified and capable operators, technicians, scientists, engineers, managers, and leaders.



## EXECUTIVE SUMMARY

The 2021 annual operating budget for Cobb County-Marietta Water Authority is a balanced budget with operating revenues exceeding operating expenses. Planned net income for 2021 will support a multi-year capital program that includes \$310 million in capital investment over the next five years.

Operating income is expected to decrease by \$1.3 million in 2021 due to a 3.8% increase in operating expenses. Net income for 2021 is projected to total \$39.6 million, a 2.6% decrease over the 2020 budget. Actual net income for 2020 is expected to be \$51.2 million, \$10.5 million higher than expected, due to higher than anticipated water sales revenue and large unrealized gains on the market value of investments.

	2020 Budget	2020 Projected Actual	Variance - Favorable (Unfavorable)	2021 Budget	Increase (Decrease) over 2020 Budget (\$)	Increase (Decrease) over 2020 Budget (%)
Operating Revenues	\$89,145,973	\$93,751,070	\$ 4,605,098	\$ 89,664,617	\$ 518,645	0.58%
Operating Expenses	49,679,994	47,963,076	1,716,918	51,559,378	1,879,384	3.78%
<b>Operating Income</b>	<b>39,465,979</b>	<b>45,787,994</b>	<b>6,322,015</b>	<b>38,105,240</b>	<b>(1,360,739)</b>	<b>-3.45%</b>
Other Income	3,169,647	7,208,055	4,038,409	3,345,952	176,305	5.56%
Other Expenses	1,802,392	1,802,392	-	1,740,000	(62,392)	-3.46%
Extraordinary Items	150,000	-	150,000	100,000	(50,000)	-33.33%
<b>Net Income</b>	<b>\$40,683,233</b>	<b>\$51,193,658</b>	<b>\$10,510,425</b>	<b>\$ 39,611,191</b>	<b>\$ (1,072,042)</b>	<b>-2.64%</b>

The 2021 capital budget totals \$68.8 million, which includes \$58.1 million in capital improvements, \$7.3 million in asset renewal and replacement projects, a \$1.4 million reservation for Department of Transportation (DOT) required projects, and a \$2 million contingency. The overall capital budget for 2021 is \$500,000 less than the 2020 capital budget due to project delays during the year that pushed spending into the next budget year.

	2020 Budget	2020 Projected Actual	Variance - Favorable (Unfavorable)	2021 Budget	Increase (Decrease) over 2020 Budget (\$)	Increase (Decrease) over 2020 Budget (%)
Aged Pipe Replacements	\$18,741,310	\$13,951,313	\$ 4,789,997	\$ 24,981,676	\$ 6,240,366	33.30%
Blow-Off Replacements	-	15,000	(15,000)	1,100,000	1,100,000	100.00%
Pipeline Improvements	628,000	408,000	220,000	5,769,000	5,141,000	818.63%
Water Treatment Plants	30,543,690	21,865,587	8,678,103	25,999,015	(4,544,675)	-14.88%
Water Storage Tanks	2,603,320	2,550,620	52,700	250,000	(2,353,320)	-90.40%
Asset Renewal & Replacement	13,313,582	8,840,000	4,473,582	7,352,502	(5,961,080)	-44.77%
<b>Total Capital Improvements</b>	<b>65,829,902</b>	<b>47,630,520</b>	<b>18,199,382</b>	<b>65,452,193</b>	<b>(377,709)</b>	<b>-0.57%</b>
Reservation for DOT Projects	1,500,000	1,927,747	(427,747)	1,361,480	(138,520)	-9.23%
Contingency	2,000,000	1,186,240	813,760	2,000,000	-	0.00%
<b>Total Capital Expenditures</b>	<b>\$69,329,902</b>	<b>\$50,744,507</b>	<b>\$18,585,395</b>	<b>\$ 68,813,674</b>	<b>\$ (516,228)</b>	<b>-0.74%</b>

## Summary of Factors Influencing the 2021 Budget

- Achieves goal of a balanced budget with net income supporting planned capital needs.
- Division goals and objectives are directly related to Strategic Plan initiatives.
- Rate program that represents the true value of water, with a 2.5% rate increase for 2021, which supports our long-term capital plan.
- In-county customer rate: \$3.13; out-of-county customer rate: \$3.45
- Water sales estimated at 76.5 million gallons per day, a 1.2 million gallon per day reduction over 2020 due to Paulding County purchasing less water.
- Operating expenses for 2021 expected to increase by 3.8% over prior year due to increasing maintenance costs of aging infrastructure and increasing depreciation expense as infrastructure is replaced.
- Salaries expense increased by 4% over prior year to allow for merit-based raises and fund two previously unfilled positions.
- Capital budget of \$68.8 million for 2021 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 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.

Monthly water demand is projected for the following year using historical demand, weather trends, and known customer changes. Water demand is tracked daily, along with temperature, rainfall, and drought status. This data is compared to historical information and used to develop monthly demand projections for the following year. Projected monthly demand numbers are then used to develop the water sales revenue budget for the following year. Yearly demand is calculated as the average of monthly demand and presented in million gallons per day (MGD).

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. Summer water usage is heavily dependent on rainfall and temperature; therefore, it is not possible to project revenue from summer surcharges.

	2017 Audited	2018 Audited	2019 Audited	2020 Budget	2020 Projected	2021 Budget
Water Sales	\$86,534,937	\$88,956,343	\$93,980,958	<b>\$87,601,689</b>	\$92,159,641	<b>\$87,995,453</b>
Base Charges	-	1,445,400	1,472,628	<b>1,502,784</b>	1,502,784	<b>1,540,464</b>
Summer Surcharges	2,186	32,359	551,289	-	49,845	-
Water Testing	45,100	44,150	46,200	<b>41,500</b>	38,800	<b>128,700</b>
<b>Total Operating Revenue</b>	<b>\$86,582,223</b>	<b>\$90,478,252</b>	<b>\$96,051,075</b>	<b>\$89,145,973</b>	<b>\$93,751,070</b>	<b>\$89,664,617</b>
% of Total Operating Revenue	100%	100%	100%	<b>100%</b>	100%	<b>100%</b>
Gallons Sold (in millions)	29,613	29,842	30,950	<b>28,435</b>	29,975	<b>27,913</b>
MGD (average)	81.4	81.3	84.8	<b>77.7</b>	81.9	<b>76.5</b>

Water sales revenue for 2020 is projected to be \$92.1 million with demand of 81.9 million MGD, compared to a budget of \$87.6 million with water demand of 77.7 MGD. The water demand projection for 2020 assumed that Paulding County would begin operating its own water treatment plant in May and reduce monthly water purchases by up to 9 MGD. However, Paulding County experienced delays and did not reduce purchases at all during 2020, resulting in water sales revenue exceeded the budget expectation.

Base charge revenue is projected to be \$1.5 million in 2020 and meet the budget expectation. Summer surcharges in the months of May through September provided \$49,845 in unbudgeted revenue for 2020, a large decrease over the prior year due to increased rainfall in 2020 driving down summer demand. Water testing revenue for 2020 is projected to be \$38,800 compared to a budget of \$41,500. The 2019 budget assumed that 830 billable samples would be processed by the CCMWA laboratory; however, the laboratory is projected to process only 776 samples.

Operating revenue for 2021 is forecasted at \$89.6 million, a 0.6% increase over the 2020 budget and a 4.4% decrease over 2020 actuals. This forecast assumes \$88 million in revenue from water sales, \$1.5 million from base charges, and \$128,700 from water testing.

The forecast for water sales revenue assumes 76.5 MGD in water sales, with 92% of water sales to in-county customers at \$3.13 per thousand gallons and 8% of sales to out-of-county customers at \$3.45 per thousand gallons. Paulding County's water treatment plant is expected to be operational in January and they will begin reducing monthly water purchases by 4 MGD in January, up to 8 MGD by December 2021. These reductions are included in the projection of 2021 water sales revenue.

Base charges for 2021 will increase by 2.5% per contract terms, which matches the rate increase for volumetric sales. The forecast for water testing revenue is based on 1,200 billable samples for Paulding County and 780 billable samples for other customers, a 42% increase over the 2020 budget. Paulding County's water treatment plant will require daily regulatory samples and they plan to utilize the CCMWA laboratory for this service. Water testing fees for 2021 will increase from \$50 per sample to \$65 per sample to recognize the cost of providing the service.

The revenue collection rate for 2021 is assumed to be 100% based on prior year collection rates and the financial stability of our customers.

## Operating Expense Assumptions

The top five expense categories in the operating budget are depreciation, salaries and benefits, electricity and natural gas, repairs and maintenance, and water treatment chemicals. In 2020, depreciation expense is expected to account for 40.6% of the operating expense budget, salaries and benefits for 26.2%, electricity and natural gas for 11%, repairs and maintenance for 7.1%, and water treatment chemicals for 4.9% of operating expenses. These proportions are in line with historical trends, with slight changes from year to year driven by water production.

### Operating Expenses by Type

	<u>2017 Audited</u>	<u>2018 Audited</u>	<u>2019 Audited</u>	<u>2020 Budget</u>	<u>2020 Projected</u>	<u>2021 Budget</u>
Depreciation	\$ 20,976,444	\$ 20,820,906	\$ 19,423,834	<b>\$ 19,500,000</b>	\$ 19,449,381	<b>\$ 19,942,000</b>
Salaries, Benefits, & Pension	11,305,408	12,500,348	12,582,132	<b>12,921,060</b>	12,579,445	<b>13,424,443</b>
Electricity & Natural Gas	5,023,004	5,272,921	5,391,984	<b>5,544,375</b>	5,276,608	<b>5,296,375</b>
Repairs & Maintenance	2,441,221	2,766,505	3,224,153	<b>3,427,749</b>	3,419,925	<b>3,779,365</b>
Chemicals	2,473,835	2,437,846	2,746,135	<b>2,388,250</b>	2,343,706	<b>2,398,975</b>
Research & Development	905,015	939,966	1,164,539	<b>1,380,800</b>	1,149,096	<b>1,525,800</b>
Residuals Management	510,543	664,929	818,749	<b>800,000</b>	733,341	<b>877,720</b>
Information Technology	502,242	542,456	465,027	<b>916,473</b>	795,409	<b>1,026,131</b>
General Insurance	562,006	513,738	539,273	<b>573,725</b>	546,128	<b>570,700</b>
Miscellaneous	1,394,117	2,504,458	1,953,909	<b>2,227,562</b>	1,670,036	<b>2,717,869</b>
	<u>\$ 46,093,835</u>	<u>\$ 48,964,073</u>	<u>\$ 48,309,734</u>	<u><b>\$ 49,679,994</b></u>	<u>\$ 47,963,076</u>	<u><b>\$ 51,559,378</b></u>

### Operating Expenses by Percent of Total

	<u>2017 Audited</u>	<u>2018 Audited</u>	<u>2019 Audited</u>	<u>2020 Budget</u>	<u>2020 Projected</u>	<u>2021 Budget</u>
Depreciation	45.5%	42.5%	40.2%	<b>39.3%</b>	40.6%	<b>38.7%</b>
Salaries, Benefits, & Pension	24.5%	25.5%	26.0%	<b>26.0%</b>	26.2%	<b>26.0%</b>
Electricity & Natural Gas	10.9%	10.8%	11.2%	<b>11.2%</b>	11.0%	<b>10.3%</b>
Repairs & Maintenance	5.3%	5.7%	6.7%	<b>6.9%</b>	7.1%	<b>7.3%</b>
Chemicals	5.4%	5.0%	5.7%	<b>4.8%</b>	4.9%	<b>4.7%</b>
Research & Development	2.0%	1.9%	2.4%	<b>2.8%</b>	2.4%	<b>3.0%</b>
Residuals Management	1.1%	1.4%	1.7%	<b>1.6%</b>	1.5%	<b>1.7%</b>
Information Technology	1.1%	1.1%	1.0%	<b>1.8%</b>	1.7%	<b>2.0%</b>
General Insurance	1.2%	1.0%	1.1%	<b>1.2%</b>	1.1%	<b>1.1%</b>
Miscellaneous	3.0%	5.1%	4.0%	<b>4.5%</b>	3.5%	<b>5.3%</b>
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u><b>100.0%</b></u>	<u>100.0%</u>	<u><b>100.0%</b></u>

The 2021 budget anticipates depreciation expense of \$19.9 million, a \$442,000 increase over the 2020 budget due to new assets beginning depreciation. Depreciation expense is expected to increase over the next three years as major construction projects are completed and added to the depreciation schedule. The older infrastructure being replaced by these new assets reached the end of their useful lives within the last few years, resulting in depreciation expense declining from 2017 to 2019, with a slight upward trend beginning in 2020.

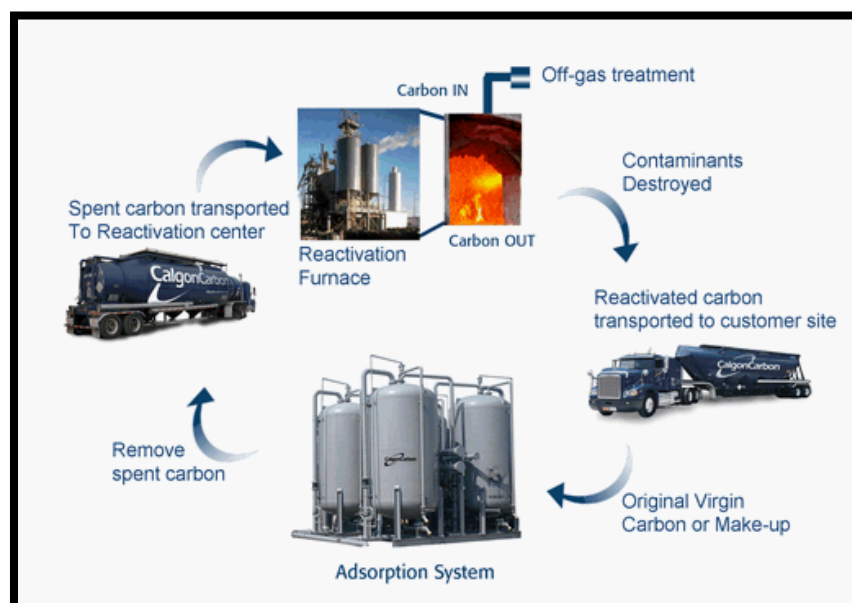
Personnel costs, including salaries, employee benefits, payroll taxes, and pension expenses, are estimated to increase by 3.9% in 2021. Each division's salaries, overtime, and payroll tax expenses were estimated based on the assumption that all full-time positions will be filled for the entire year. The budgets for salaries, overtime, and payroll taxes also include an allocation for merit increases, which totaled \$346,188.

Employee benefits expense is expected to increase by 8.8% in 2021 due to an increase in health insurance premiums and the addition of benefits for two positions that were unfunded in the prior year's budget. Pension expense includes quarterly pension contributions and the cost of administering the pension plan and are expected to remain constant in 2021. Administration costs are projected to be slightly lower in 2021, while pension contributions, calculated as a percent of payroll, will increase.

Electricity and natural gas expenses are expected to decrease by 4.5% in 2021 due to lower projected water demand. Actual electricity and natural gas expenses for 2020 are projected to total \$5.3 million, compared to a budget of \$5.5 million, and remain at \$5.3 million in 2021.

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. Repair and maintenance expenses for 2020 are projected to total \$3.4 million and meet the budget expectation. The total budget for these expenses is expected to increase by 10.3% in 2021 to \$3.8 million. This increase is mainly due to an increase in pipeline, meter, and tank maintenance and repair costs, including the abandonment of meters that served a previous customer and internal repairs to a steel water storage tank.

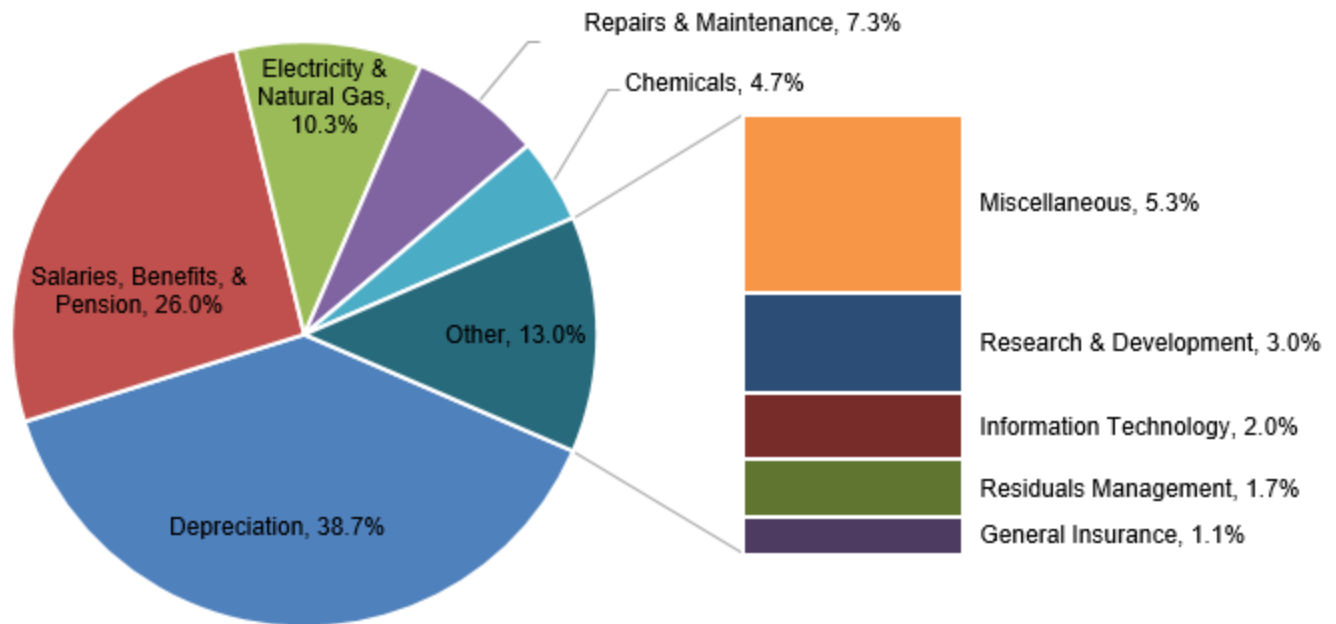
The budget for water treatment chemicals for 2021 is expected to remain constant at \$2.4 million. Actual chemicals expense in 2020 is projected to total \$2.4 million, meeting the budget expectation. During 2020, water treatment chemicals expense included the reactivation of the media in 10 granular activated carbon (GAC) vessels totaling \$450,000. GAC is used during the treatment process to remove dissolved organic compounds that can lead to water quality issues in finished water. The 2021 water treatment chemicals budget includes the reactivation of the media in 10 GAC vessels, at a slightly lower annual cost due to savings achieved by competitively bidding.



Granular Activated Carbon reactivation process



## 2021 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 2020 is projected to be \$7.2 million, which will exceed the budget expectation of \$3.2 million by \$4 million due primarily to higher than anticipated interest income and unrealized gains on the fair market value of investments. Interest income is projected to exceed budget expectations by \$1.2 million due to investments purchased in prior years, at higher interest rates than the current market. Unrealized gains on the market value of investments, which are not budgeted, are estimated to total \$2.7 million in 2020. All investments are held to maturity, so these gains will never be realized but are required to be included in the calculation of net income. In 2021, other income is forecasted to total \$3.3 million, a 5.5% increase over the prior year.

Budgeted other expenses include debt related items such as the interest portion of revenue bond payments, amortized costs, and fiscal agent fees. CCMWA currently has one outstanding debt issuance that contributes to expenses in this category. Other expenses for 2020 are expected to total \$1.8 million.

## Capital Improvement Plan Assumptions

The 2021-2025 Capital Improvement Plan is focused on sustaining the ability to provide our customers' expected level of service by maintaining and reinvesting in 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 2021, capital project spending is budgeted at \$68.8 million and the overall value of the 5-year CIP is estimated to be \$309.9 million.

	2020 Budget	2020 Projected Actual	Variance - Favorable (Unfavorable)	2021 Budget	Increase (Decrease) over 2020 Budget (\$)	Increase (Decrease) over 2020 Budget (%)
Aged Pipe Replacements	\$18,741,310	\$13,951,313	\$ 4,789,997	\$ 24,981,676	\$ 6,240,366	33.30%
Blow-Off Replacements	-	15,000	(15,000)	1,100,000	1,100,000	100.00%
Pipeline Improvements	628,000	408,000	220,000	5,769,000	5,141,000	818.63%
Water Treatment Plants	30,543,690	21,865,587	8,678,103	25,999,015	(4,544,675)	-14.88%
Water Storage Tanks	2,603,320	2,550,620	52,700	250,000	(2,353,320)	-90.40%
Asset Renewal & Replacement	13,313,582	8,840,000	4,473,582	7,352,502	(5,961,080)	-44.77%
<b>Total Capital Improvements</b>	<b>65,829,902</b>	<b>47,630,520</b>	<b>18,199,382</b>	<b>65,452,193</b>	<b>(377,709)</b>	<b>-0.57%</b>
Reservation for DOT Projects	1,500,000	1,927,747	(427,747)	1,361,480	(138,520)	-9.23%
Contingency	2,000,000	1,186,240	813,760	2,000,000	-	0.00%
<b>Total Capital Expenditures</b>	<b>\$69,329,902</b>	<b>\$50,744,507</b>	<b>\$18,585,395</b>	<b>\$ 68,813,674</b>	<b>\$ (516,228)</b>	<b>-0.74%</b>

Actual capital expenses for 2020 are estimated to be \$50.7 million, with \$38.8 million from capital improvement projects, \$8.8 million from asset renewal and replacement projects, \$1.9 million from DOT 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 a property next to the Quarles Water Treatment Plant that will be used for construction storage for the Blackjack Water Main replacement project and later, as part of the plant grounds.

CCMWA's planning target is to spend at least 70-80% of the annual CIP budget and capital spending in 2020 is estimated to be 73.2% of the annual CIP budget. Spending on several projects did not progress as quickly as expected in 2020, but as these projects move further into the construction phase during 2021, spending should progress at a faster pace. The 2020 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:

- 2020 projected and 2021 proposed operating and capital budgets

- 3.5% inflation factor for operating expenses in future years
- Anticipated water demand of 81.9 MGD in 2020 and lower demand of 76.5 MGD in 2021 due to reduced water purchases from Paulding County beginning in January.
- Average annual water demand of 77.5 MGD from 2022 through 2031 and average annual water demand of 80.5 MGD from 2032 to 2041.

The Cash Flow Model and 20-year CIP outlook do not include projects that are currently speculative and inestimable, and, if realized, would be funded through contingency or through the issuance of new debt. These 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 and in need of frequent maintenance.

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

CIP Project Description	Cost Category	Cost				
		2021	2022	2023	2024	2025
U.S. Highway 41 Parallel 20" Water Main	D	41,907	83,814	83,814	83,814	83,814
West Side Loop Section #2 36" Water Main	D	-	234,750	469,501	469,501	469,501
Blackjack Tank Supply 36" Water Line	D	-	-	262,948	525,895	525,895
Factory Shoals 30" & Six Flags 24" Water Mains	D	-	-	-	-	100,784
BOR 2021 - Wyckoff East to Acworth Due West Rd (5)	D	27,125	54,250	54,250	54,250	54,250
BOR 2022 - Acworth Due West Rd to McEver Park Dr (7)	D	-	38,985	77,970	77,970	77,970
BOR 2023 - Beech Haven Trail to Maner Rd (6)	D	-	-	35,136	70,273	70,273
BOR 2024 - Mableton Pkwy/Discovery Blvd/Riverview Rd (8)	D	-	-	-	47,791	95,581
BOR 2025 - Six Flags Way/Lee Ind./Mableton Pkwy (6)	D	-	-	-	-	38,004
Wyckoff 42" Raw Water Pipeline Improvements	D	-	-	144,155	288,310	288,310
Maner Road 36" Water Main Replacement	D	-	-	110,816	221,632	221,632
Cedarcrest New 16" Water Main	D	-	-	21,549	43,098	43,098
Quarles Water Treatment Plant 1 Replacement	D	787,021	1,574,042	1,574,042	1,574,042	1,574,042
Quarles Plant 2 SCADA Replacement	D	-	-	-	705,052	1,410,104
Quarles Taste & Odor Process Improvements	C/D	-	147,646	275,292	275,292	255,292
Quarles Recycle Pump Station Electrical Upgrades	D	-	100,000	200,000	200,000	200,000
Quarles Reservoir Cleaning	D	-	76,250	305,000	305,000	305,000
Quarles Plant 2 Filter Valve & Actuator Replacements	D	-	-	263,680	527,360	527,360
Quarles Main Switchgear Replacement	D	-	-	-	274,227	548,454
Quarles Plant 2 Sludge Removal Improvements	D	-	-	-	-	113,637
Quarles Thickener Addition	D	-	-	-	89,643	179,286
Quarles Chemical Building Replacement	D	-	-	-	-	91,263
Quarles Chlorine Feed System Replacement	D	-	-	-	-	284,634
Wyckoff 6MG Clearwell Addition	D	-	231,816	463,633	463,633	463,633
Wyckoff Maintenance Facility Improvements	D	-	26,822	107,287	107,287	107,287
Wyckoff Press Filtrate Discharge Pre-Treatment	C/D	-	152,421	204,843	204,843	104,843
Wyckoff Thickener No. 4 Addition, Replace No. 1 & 2	D	-	-	-	182,458	364,915
Wyckoff Dewatering Equipment & Building Modification	D	-	-	-	-	455,414
Pete Shaw Tank No. 2 (5 MG)	WD	35,753	91,505	71,505	91,505	71,505
Pine Mountain Tank No. 1 Replacement (5 MG)	D	-	-	46,230	92,460	92,460
2021 AR&R Projects *	D	757,355	1,514,711	1,514,711	1,514,711	1,514,711
<b>Total Operating Impact from CIP and AR&amp;R Projects</b>		<b>1,580,129</b>	<b>3,915,214</b>	<b>5,302,742</b>	<b>7,160,552</b>	<b>9,216,880</b>
<b>Cost Category</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2024</b>
Chemicals ( C )		-	120,000	120,000	120,000	120,000
Maintenance ( M )		-	20,000	-	20,000	-
Depreciation ( D )		1,580,129	3,775,214	5,182,742	7,020,552	9,096,880
		<b>1,580,129</b>	<b>3,915,214</b>	<b>5,302,742</b>	<b>7,160,552</b>	<b>9,216,880</b>

\* 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.

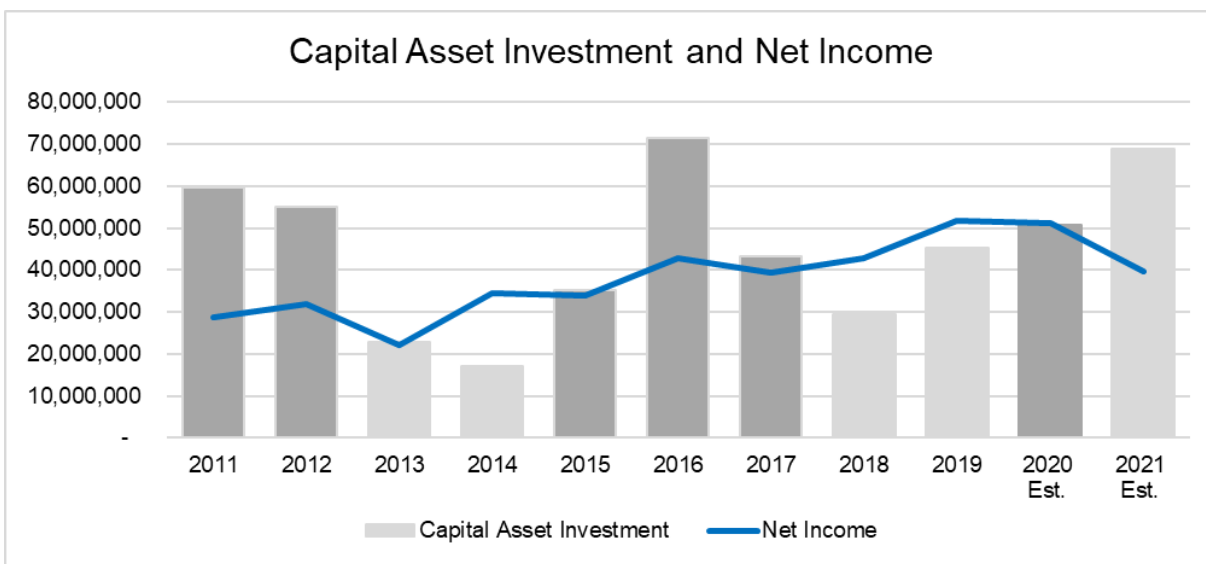
## Fund Equity

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.

	2017 Audited	2018 Audited	2019 Audited	2020 Projected	2021 Budget
Operating Revenues	\$ 86,582,223	\$ 90,478,252	\$ 96,051,075	\$ 93,751,070	\$ 89,664,617
Operating Expenses	46,093,835	48,964,073	48,309,734	47,963,076	51,559,378
Operating Income	40,488,388	41,514,179	47,741,341	45,787,994	38,105,239
Non-Operating Revenue (Expense)	(1,098,169)	1,367,539	3,885,586	5,405,664	1,505,952
Change in Net Position	39,390,219	42,881,718	51,626,927	51,193,658	39,611,191
Net Position - Beginning	552,724,142	592,114,361	634,996,079	686,623,006	737,816,664
Net Position - Ending	\$ 592,114,361	\$ 634,996,079	\$ 686,623,006	\$ 737,816,664	\$ 777,427,855

Total net position as of December 31, 2019 was \$686,623,006. Total net position is projected to be \$737,818,664 by December 31, 2020 and \$777,427,855 by December 31, 2021. 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.

Capital asset investment has exceeded annual net income in six of the last ten years. In these years, net income was supplemented by funds reserved for capital projects to fund 100% of capital with cash. Budgeted capital spending for 2021 is expected to exceed net income and we plan to once again use reserved funds to continue funding capital projects with cash. If net income and planned capital spending meet the budget expectation in 2021, capital reserves are expected to decrease by \$10.8 million. However, if only 80% of the capital budget is spent in 2021, \$3 million will be added to capital reserves.



## Financial Plan

Cobb County-Marietta Water Authority's current financial plan is to use the pay-as-you go method for financing capital projects and to avoid issuing debt except under specific conditions. Under this method, annual net income and cash reserved for capital spending are used to fund each year's capital outlays. All 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 the monthly capital outlays projected for our 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

	2020 Projected	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	2025 Estimate
Projected Water Demand (MGD)	81.9	76.5	76.7	76.5	76.3	76.1
Projected Rate Increase	2.00%	2.50%	2.50%	2.50%	2.50%	2.50%
Operating Revenue	\$ 93,751,070	\$ 89,664,617	\$ 90,345,180	\$ 92,331,438	\$ 94,292,459	\$ 96,252,640
Operating Expenses	(47,963,076)	(51,559,378)	(51,979,086)	(53,680,612)	(55,286,778)	(56,964,994)
Interest and Other Income	7,208,055	3,101,047	2,287,588	2,188,210	2,226,078	2,237,849
Other Expenses	(1,802,392)	(1,595,096)	(1,617,084)	(1,555,815)	(1,491,336)	(1,423,651)
Net Income	<u>51,193,657</u>	<u>39,611,190</u>	<u>39,036,598</u>	<u>39,283,221</u>	<u>39,740,423</u>	<u>40,101,844</u>
Annual Cash Available for Construction	83,683,584	61,986,507	62,610,083	68,631,419	50,526,988	49,196,761
Annual CIP Spending	68,813,674	72,806,846	72,806,846	65,109,974	49,621,914	47,519,807
Ending Cash Reserved for Capital	<u>\$ 229,221,807</u>	<u>\$ 218,401,468</u>	<u>\$ 208,204,705</u>	<u>\$ 211,726,150</u>	<u>\$ 212,631,224</u>	<u>\$ 214,308,178</u>
Increase/(Decrease) in Cash for Capital	\$ 14,869,910	\$ (10,820,339)	\$ (10,196,763)	\$ 3,521,445	\$ 905,074	\$ 1,676,954

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 our service area are more likely to be considered eligible for debt financing.

The overall goal of our 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, we have 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 44% of the workforce will be eligible to retire in the next ten years. We have 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.

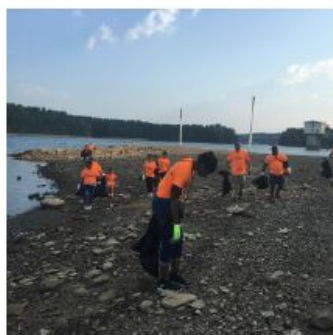
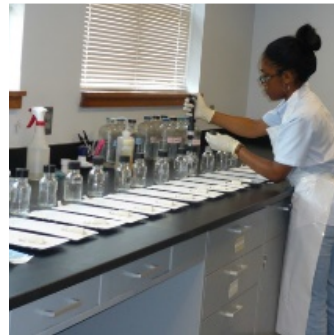
### Position reallocations for 2021

- The Director of Human Resources and Human Resources & Communications Coordinator positions were reallocated from the Administration Division to a newly created Human Resources Division, to more accurately track and budget expenses related to the Human Resources function.
- An Office Manager position that provides administrative support to the Maintenance and Transmission Divisions was previously recognized as 50% Administration, 25% Maintenance, and 25% Transmission and is now fully allocated to Administration.
- The Safety Coordinator position was open and not funded in the 2020 budget to allow us to evaluate our needs related to safety and emergency preparedness. For 2021, the position is funded in the budget with the title of Safety and Emergency Preparedness Coordinator and reclassified from the Safety & Security Division to the Human Resources Division.
- An open and unfunded position in the Wyckoff Division was reallocated to the Maintenance Division and is funded in the 2021 budget.

### Full Time Equivalent Positions by Division

Division	2019	2020	2021
Administration	5.50	5.50	4.00
Finance	3.00	3.00	3.00
Engineering	9.00	9.00	9.00
Human Resources	0.00	0.00	3.00
Information Technology	4.00	5.00	5.00
Safety & Security	2.00	1.00	0.00
Hickory Log Creek Reservoir	2.00	2.00	2.00
Wyckoff	21.00	21.00	20.00
Quarles	21.00	21.00	21.00
Maintenance	26.25	26.25	27.00
Laboratory	10.00	10.00	10.00
Transmission	10.75	10.75	10.50
Intern Program	1.50	1.50	1.50
<b>Total Positions</b>	<b>116.00</b>	<b>116.00</b>	<b>116.00</b>

# OPERATING BUDGET



Statement of Operations

Statement of Operations	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Revenue</b>						
Water Sales & Base Charges	\$ 89,104,473	\$ 93,712,270	\$ 4,607,798	\$ 89,535,917	\$ 431,445	0.48%
Water Testing	41,500	38,800	(2,700)	128,700	87,200	210.12%
Total Revenue	\$ 89,145,973	\$ 93,751,070	\$ 4,605,098	\$ 89,664,617	\$ 518,645	0.58%
<b>Division Expense</b>						
General Operations	\$ 2,024,260	\$ 2,006,843	\$ 17,417	\$ 2,270,940	\$ 246,680	12.19%
Depreciation Expense	19,500,000	19,449,381	50,619	19,942,000	442,000	2.27%
Administration Division	955,799	926,189	29,610	789,946	(165,853)	-17.35%
Administration & Rental Buildings	156,100	130,653	25,447	187,800	31,700	20.31%
Finance Division	359,126	344,182	14,944	368,852	9,726	2.71%
Engineering Division	1,389,812	1,328,405	61,408	1,460,503	70,691	5.09%
Human Resources Division	-	-	-	370,212	370,212	100.00%
Information Technology Division	1,232,667	1,087,339	145,328	1,332,436	99,769	8.09%
Safety and Security Division	100,000	-	100,000	-	(100,000)	-100.00%
Research & Development	1,380,800	1,149,096	231,704	1,525,800	145,000	10.50%
Hickory Log Creek Reservoir Division	536,472	356,508	179,963	460,123	(76,349)	-14.23%
Wyckoff Treatment Plant Division	7,989,023	7,677,160	311,864	8,163,304	174,281	2.18%
Quarles Treatment Plant Division	7,468,753	7,020,981	447,772	7,602,780	134,027	1.79%
Maintenance Division	2,889,872	2,870,597	19,274	3,058,826	168,954	5.85%
Laboratory Division	1,171,158	1,123,147	48,011	1,208,520	37,362	3.19%
Transmission Division	2,526,152	2,492,595	33,557	2,817,336	291,184	11.53%
Total Division Expense	\$ 49,679,994	\$ 47,963,076	\$ 1,716,918	\$ 51,559,378	\$ 1,879,384	3.78%
<b>Total Income from Operations</b>	\$ 39,465,979	\$ 45,787,994	\$ 6,322,016	\$ 38,105,240	\$ (1,360,739)	-3.45%
<b>Other Income</b>						
Interest Income	\$ 2,652,000	\$ 3,871,153	\$ 1,219,153	\$ 3,000,000	\$ 348,000	13.12%
Rental Income	113,925	107,254	(6,671)	99,847	(14,078)	-12.36%
Gain (Loss) on Asset Disposal	-	20,221	20,221	-	-	0.00%
Gain (Loss) on Market Value of Investments	-	2,686,731	2,686,731	-	-	0.00%
Reimbursements & Settlements	-	256,122	256,122	-	-	0.00%
Sales Tax Refund	-	-	-	-	-	0.00%
Timber Sales	144,000	8,633	(135,367)	-	(144,000)	0.00%
Amortized Bond Premium	253,722	253,722	-	244,905	(8,817)	-3.48%
Miscellaneous Income	6,000	4,221	(1,779)	1,200	(4,800)	-80.00%
Total Other Income	\$ 3,169,647	\$ 7,208,055	\$ 4,038,409	\$ 3,345,952	\$ 176,305	5.56%
<b>Other Expense</b>						
Bond Interest - 2015 Revenue Bonds	1,795,392	1,795,392	-	1,733,000	(62,392)	-3.48%
Fiscal Agent Fees	7,000	7,000	-	7,000	-	0.00%
Total Other Expense	\$ 1,802,392	\$ 1,802,392	\$ -	\$ 1,740,000	\$ (62,392)	-3.46%
<b>Net Income Before Extraordinary Items</b>	\$ 40,833,233	\$ 51,193,658	\$ 10,360,425	\$ 39,711,191	\$ (1,122,042)	-2.75%
Extraordinary Items	150,000	-	150,000	100,000	(50,000)	-33.33%
<b>Net Income after Extraordinary Items</b>	\$ 40,683,233	\$ 51,193,658	\$ 10,510,425	\$ 39,611,191	\$ (1,072,042)	-2.64%
Water Production Million Gallons Per Day Average	77.7	81.9	4.2	76.5	-1.2	-1.54%

## 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 Long Term Water Supply Litigation expense due to a contribution to the Atlanta Regional Commission legal fund to support regional water issues.
- Increased Dues & Fees expense due to membership fees moved to this budget from the Research & Development budget.
- Decreased Public Education & Outreach expense after a one-time expense in the prior year to develop a virtual tour of our facilities.
- Increased Bank Fees due to interest rates no longer offsetting these fees.

<b>General Operations</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
Pension Plan Contributions & Fees	\$ 985,000	\$ 954,458	\$ 30,543	\$ 985,000	\$ -	0.00%
Health Reimbursement Account	90,000	60,000	30,000	80,000	(10,000)	-11.11%
Workers' Compensation Insurance	125,000	99,821	25,179	110,000	(15,000)	-12.00%
Liability Insurance	310,000	310,072	(72)	320,000	10,000	3.23%
Boiler/Machinery Insurance	30,000	27,510	2,490	28,000	(2,000)	-6.67%
Umbrella & Crime Insurance	65,000	65,000	-	65,000	-	0.00%
Risk Reduction / Safety Initiative	10,000	-	10,000	10,000	-	0.00%
Employee Incentive	20,000	11,870	8,130	20,500	500	2.50%
Fees - Board Members	34,800	34,800	-	34,800	-	0.00%
Fees - Accounting	660	-	660	660	-	0.00%
Fees - Audit	30,925	30,925	-	31,000	75	0.24%
Fees - Long Term Water Supply Litigation	50,000	180,829	(130,829)	350,000	300,000	600.00%
Fees - Legal	50,000	50,000	-	40,000	(10,000)	-20.00%
Fees - Drug Testing & Background Checks	8,000	8,000	-	8,000	-	0.00%
Fees - Timber Tax	5,000	500	4,500	5,000	-	0.00%
Technical Services	18,000	14,332	3,668	18,540	540	3.00%
Travel Expenses	5,075	-	5,075	11,000	5,925	116.75%
Dues and Fees	45,000	45,866	(866)	57,940	12,940	28.76%
Education and Training	6,800	-	6,800	6,800	-	0.00%
Public Education & Outreach	70,300	51,824	18,476	9,000	(61,300)	-87.20%
Bank Fees	1,500	1,359	141	17,000	15,500	1033.33%
Office Supplies	5,000	5,000	-	5,000	-	0.00%
Investment Advisor	32,000	32,000	-	32,000	-	0.00%
Food	6,000	2,000	4,000	5,000	(1,000)	-16.67%
Books and Periodicals	200	678	(478)	700	500	250.00%
Employee Wellness Program	20,000	20,000	-	20,000	-	0.00%
<b>General Operating Expense:</b>	<b>\$ 2,024,260</b>	<b>\$ 2,006,843</b>	<b>\$ 17,417</b>	<b>\$ 2,270,940</b>	<b>\$ 246,680</b>	<b>12.19%</b>
<b>Depreciation Expense</b>	<b>19,500,000</b>	<b>19,449,381</b>	<b>50,619</b>	<b>19,942,000</b>	<b>442,000</b>	<b>2.27%</b>
<b>Total Operating Expense</b>	<b>\$ 21,524,260</b>	<b>\$ 21,456,224</b>	<b>\$ 68,036</b>	<b>\$ 22,212,940</b>	<b>\$ 688,680</b>	<b>3.20%</b>



## Administration Division

The Administration Division is responsible for overseeing the entire organization and includes the roles of General Manager, Assistant General Manager/Director of Operations, and their support staff.

### Budget Highlights

- Decreased Salaries & Wages expense due to two Human Resources positions reallocated to a separate division in 2021.
- Decreased expenses in all other categories to recognize this reallocation to the Human Resources Division.

<b>Administration Division</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	<b>2021 Budget</b>	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 755,278	\$ 755,278	\$ -	\$ 633,801	\$ (121,477)	-16.08%
Employee Benefits	81,346	81,942	(596)	67,760	(13,586)	-16.70%
FICA - Employer Share	46,828	37,440	9,388	39,296	(7,532)	-16.08%
Medicare - Employer Share	10,952	10,807	145	9,191	(1,761)	-16.08%
Travel Expense	19,200	6,165	13,035	13,650	(5,550)	-28.91%
Dues and Fees	1,550	1,867	(317)	1,000	(550)	-35.48%
Education and Training	16,345	11,244	5,101	9,100	(7,245)	-44.33%
Uniforms	1,200	434	766	600	(600)	-50.00%
<b>Total Personnel Costs</b>	<b>\$ 932,699</b>	<b>\$ 905,176</b>	<b>\$ 27,523</b>	<b>\$ 774,398</b>	<b>\$ (158,301)</b>	<b>-16.97%</b>
<b>Non-Personnel Costs</b>						
Automotive Maintenance & Repairs	\$ 1,500	\$ 1,002	\$ 498	\$ 1,000	\$ (500)	-33.33%
Communications	11,000	11,000	-	7,448	(3,552)	-32.29%
Office Supplies	4,900	3,500	1,400	3,500	(1,400)	-28.57%
Gasoline, Oil, & Diesel Fuel	400	200	200	400	-	0.00%
Food	3,800	1,500	2,300	2,000	(1,800)	-47.37%
Small Equipment	1,000	915	85	500	(500)	-50.00%
Safety Supplies & Equipment	500	2,897	(2,397)	700	200	40.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 23,100</b>	<b>\$ 21,013</b>	<b>\$ 2,087</b>	<b>\$ 15,548</b>	<b>\$ (7,552)</b>	<b>-32.69%</b>
<b>Total Administration Expense</b>	<b>\$ 955,799</b>	<b>\$ 926,189</b>	<b>\$ 29,610</b>	<b>\$ 789,946</b>	<b>\$ (165,853)</b>	<b>-17.35%</b>

## Goals and Objectives – Administration Division

### #1

**Strategic Initiative:** Communication Enhancements

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Number of public outreach speaking engagements	≥ 4	> 3	47	0*	>10
Number of presentations at water conferences	≥ 2	N/A	7	0*	4
Months since last update to CCMWA website	≤ 6	< 12	0	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. **\*All public outreach and conference presentations cancelled due to COVID-19**

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:** Communication Enhancements

**Objective:** Maintain positive communications with customers

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Number of individual customer outreach meetings	≥ 10	1	1	3	≥ 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.

### #3

**Strategic Initiative:** Communication Enhancements

**Objective:** Maintain positive communications with employees

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Number of virtual lunch meetings with employees	4	N/A	N/A	1	4

During 2020, the Director of Operations began holding virtual lunch meetings with staff to connect, discuss issues, and help to maintain personnel connections when employees are working different schedules. These team building exercises will be held once per quarter going forward.



## Goals and Objectives – Administration Division

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**#4**  
**Strategic Initiative:** Preparedness/Security  
**Objective:** Maintain continuity of service

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Time since last Vulnerability Assessment update	< 5 years	15	0	0	0
Time since last Business Continuity Plan update	< 5 years	0	1	0	1
Time since last Business Continuity Plan exercise	≤ 1 year	0	1	0	0
Time since last Drought Contingency Plan update	< 4 years	2	1	2	3

The United States EPA has set a requirement that Vulnerability/Risk & Resiliency Plans be updated no less than every five years. As a result, CCMWA's Business Continuity Plan (BCP) will need to be updated on the same schedule to make the Risk & Resiliency Plan viable. For the BCP to be useful, staff should be familiar with the plan; therefore, management believes a yearly tabletop 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.

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## 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 office building and warehouse space located on the same property as the current Administration & Engineering buildings.

### Budget Highlights

- Increased Cleaning Services expense to allow for routine, deep cleanings of heavily trafficked buildings.
- Increased General Maintenance & Repairs expenses for painting and flooring replacement in one of the Administration buildings.
- Increased Security Maintenance & Repairs expense to upgrade exterior lighting and cameras at both Administration buildings.
- Decreased utilities expense based on actual usage in 2020, after prior year was estimated before a new tenant occupied the warehouse space.
- Decreased Small Equipment expense due to one-time furniture purchases made in the prior year.

<b>Administration and Rental Buildings</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	<b>2021 Budget</b>	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
Cleaning Services	\$ 13,000	\$ 16,540	\$ (3,540)	\$ <b>18,800</b>	\$ 5,800	44.62%
General Maint. & Repairs - Admin Building	25,400	24,375	1,025	<b>65,000</b>	39,600	155.91%
General Maint. & Repairs - Rental Buildings	4,600	3,041	1,559	<b>8,000</b>	3,400	73.91%
Security Maintenance & Repairs	9,000	11,622	(2,622)	<b>17,000</b>	8,000	88.89%
Grounds Maintenance	17,000	12,316	4,684	<b>15,000</b>	(2,000)	-11.76%
Natural Gas	2,500	3,350	(850)	<b>4,500</b>	2,000	80.00%
Electricity	60,000	40,265	19,735	<b>45,000</b>	(15,000)	-25.00%
Water Purchases	4,000	1,733	2,267	<b>2,000</b>	(2,000)	-50.00%
Sewer / Wastewater Handling	3,700	812	2,888	<b>1,000</b>	(2,700)	-72.97%
Janitorial Supplies	1,600	1,300	300	<b>1,500</b>	(100)	-6.25%
Small Equipment	15,300	15,300	-	<b>10,000</b>	(5,300)	-34.64%
<b>Total Admin. &amp; Rental Buildings Expense</b>	<b>\$ 156,100</b>	<b>\$ 130,653</b>	<b>\$ 25,447</b>	<b>\$ 187,800</b>	<b>\$ 31,700</b>	<b>20.31%</b>

## Finance Division

The Finance Division is responsible for coordination and administration of financial and accounting functions of CCMWA, including billing, 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.

### 2020 Achievements

- Received the Government Finance Officers Association Distinguished Budget Presentation Award for the 2020 budget document, with special recognition for performance measures and the presentation of the capital budget.
- Received the Government Finance Officers Association Excellence in Financial Reporting Award for the 2019 Comprehensive Annual Financial Report (CAFR).

### Budget Highlights

- Increased Salaries & Wages expense due to merit increases.
- Increased Employee Benefits expense due to increased rates upon renewal.
- Decreased Travel expenses due to staff obtaining training virtually instead of in-person.
- Decreased Education and Training expenses due to changes in staff needs from the prior year.

Finance Division	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 277,746	\$ 274,033	\$ 3,713	\$ 289,321	\$ 11,576	4.17%
Employee Benefits	40,262	39,769	493	42,737	2,475	6.15%
FICA - Employer Share	17,221	16,248	973	17,938	717	4.16%
Medicare - Employer Share	4,028	3,800	228	4,196	168	4.17%
Travel Expense	3,000	60	2,940	500	(2,500)	-83.33%
Dues and Fees	520	479	41	480	(40)	-7.69%
Education and Training	5,000	2,672	2,328	2,950	(2,050)	-41.00%
Uniforms	350	208	142	150	(200)	-57.14%
<b>Total Personnel Costs</b>	<b>\$ 348,126</b>	<b>\$ 337,269</b>	<b>\$ 10,857</b>	<b>\$ 358,272</b>	<b>\$ 10,146</b>	<b>2.91%</b>
<b>Non-Personnel Costs</b>						
Communications	\$ 4,600	\$ 4,600	\$ -	\$ 5,880	\$ 1,280	27.83%
Office Supplies	5,500	2,000	3,500	4,000	(1,500)	-27.27%
Food	600	100	500	400	(200)	-33.33%
Safety Supplies & Equipment	300	214	86	300	-	0.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 11,000</b>	<b>\$ 6,914</b>	<b>\$ 4,086</b>	<b>\$ 10,580</b>	<b>\$ (420)</b>	<b>-3.82%</b>
<b>Total Finance Division Expense</b>	<b>\$ 359,126</b>	<b>\$ 344,182</b>	<b>\$ 14,944</b>	<b>\$ 368,852</b>	<b>\$ 9,726</b>	<b>2.71%</b>

## Goals and Objectives – Finance Division

#1

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Bond credit rating, assigned or reaffirmed by credit rating agencies</b>	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	2018	2019	2020	Goal 2021
<b>Percent of year that reserve balance met minimum requirement</b>	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 2020 was \$8.5 million and will be \$8.7 million for fiscal year 2021.

#3

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Percent of active vendors receiving electronic payments and remittance notifications</b>	> 30%	4%	19%	36%	40%

CCMWA paid 392 different vendors by check in 2020 . 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 merit increases.
- Increased Employee Benefits expense due to increased rates upon renewal.
- Increased Travel and Education & Training expenses due to professional education points that could not be obtained during 2020 due to the pandemic.
- Increased Communication expenses due to wireless data plan changes that will enable staff to work in the field more easily, with less time in the office.
- Increased Small Equipment expenses to allow for the purchase of a second GIS drone.

<b>Engineering Division</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 1,062,014	\$ 1,043,587	\$ 18,427	\$ 1,081,492	\$ 19,478	1.83%
Employee Benefits	148,653	162,304	(13,650)	172,654	24,001	16.15%
FICA - Employer Share	65,845	61,229	4,616	67,053	1,208	1.83%
Medicare - Employer Share	15,400	14,324	1,076	15,682	282	1.83%
Travel Expense	20,000	1,793	18,207	28,000	8,000	40.00%
Dues and Fees	2,100	1,625	475	2,100	-	0.00%
Education and Training	16,500	3,349	13,151	20,000	3,500	21.21%
Uniforms	1,500	200	1,300	1,500	-	0.00%
<b>Total Personnel Costs</b>	<b>\$ 1,332,012</b>	<b>\$ 1,288,410</b>	<b>\$ 43,602</b>	<b>\$ 1,388,481</b>	<b>\$ 56,469</b>	<b>4.24%</b>
<b>Non-Personnel Costs</b>						
Automotive Maintenance & Repairs	\$ 4,000	\$ 4,061	\$ (61)	\$ 4,000	\$ -	0.00%
Communications	20,500	24,642	(4,142)	30,022	9,522	46.45%
Office Supplies	8,500	3,032	5,468	7,500	(1,000)	-11.76%
Gas, Oil & Diesel	6,500	4,066	2,434	6,500	-	0.00%
Food	6,000	400	5,600	5,000	(1,000)	-16.67%
Small Equipment	9,300	3,032	6,268	15,400	6,100	65.59%
Safety Supplies & Equipment	3,000	761	2,239	3,600	600	20.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 57,800</b>	<b>\$ 39,994</b>	<b>\$ 17,806</b>	<b>\$ 72,022</b>	<b>\$ 14,222</b>	<b>24.61%</b>
<b>Total Engineering Expense</b>	<b>\$ 1,389,812</b>	<b>\$ 1,328,405</b>	<b>\$ 61,408</b>	<b>\$ 1,460,503</b>	<b>\$ 70,691</b>	<b>5.09%</b>

## Goals and Objectives – Engineering Division

#1

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
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%	54%	44%	62%	50%

The Engineering Division assists maintenance and operations staff on larger AR&R projects that require the use of an external engineering firm or construction company. For 2021, there are 11 AR&R projects that will require input from the Engineering Division and these projects represent 56% of the total AR&R budget. 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	2018	2019	2020	Goal 2021
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%	83%	83%	100%

The Engineering Division is responsible for planning and managing all CCMWA's major capital projects. For 2021 this includes three Aged Pipe Replacement projects, one round of blow-off replacements, two pipeline projects, nine plant projects, and two water storage tank projects. These projects represent 84% of the total 2021 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	2018	2019	2020	Goal 2021
Percent of Research & Development initiatives assigned to Engineering in progress by end of year, with at least 75% of budget expended	100%	41%	47%	100%	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 15 of the initiatives in the 2021 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 2021 were selected to help ensure that at least 75% of the budget is expended each year.



## Human Resources Division

The Human Resources Division is responsible for all major aspects of human capital management. These functions include attracting and retaining a skilled workforce, training and developing CCMWA staff, compensation and benefits administration, risk management, and employee relations. The Human Resources (HR) Division is also responsible for internal and external communications, promoting CCMWA's safety culture, and ensuring a diverse and inclusive workplace. The HR Division develops workplace policies and ensures organizational compliance with federal, state, and local employment laws.

### Budget Highlights

- In previous years, expenses related to Human Resources were included in the Administration Division. These expenses will be tracked separately beginning in fiscal year 2021 and the budget was set based on historical personnel costs and non-personnel costs that are allocated by division, such as communications and office supplies. The Administration Division budget for 2021 was decreased by \$165,853 to fund the Human Resources Division.
- Personnel costs were then increased due to a previously unfunded position that was reallocated to Human Resources from the dissolved Safety Division.
- A line item for Safety Education & Training was created to track all safety training expenses and was funded by decreases to all other divisions' Education & Training budgets, where these expenses were previously recorded.

Human Resources Division	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ -	\$ -	\$ -	\$ 261,623	\$ 261,623	n/a
Employee Benefits	-	-	-	38,119	38,119	n/a
FICA - Employer Share	-	-	-	16,221	16,221	n/a
Medicare - Employer Share	-	-	-	3,794	3,794	n/a
Travel Expense	-	-	-	7,000	7,000	n/a
Dues and Fees	-	-	-	2,000	2,000	n/a
Education and Training	-	-	-	10,050	10,050	n/a
Education and Training - Safety	-	-	-	15,500	15,500	n/a
Uniforms	-	-	-	450	450	n/a
<b>Total Personnel Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 354,757</b>	<b>\$ 354,757</b>	<b>n/a</b>
<b>Non-Personnel Costs</b>						
Communications	\$ -	\$ -	\$ -	\$ 7,320	\$ 7,320	n/a
Office Supplies	-	-	-	3,350	3,350	n/a
Food	-	-	-	1,785	1,785	n/a
Safety Supplies & Equipment	-	-	-	3,000	3,000	n/a
<b>Total Non-Personnel Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 15,455</b>	<b>\$ 15,455</b>	<b>n/a</b>
<b>Total Human Resources Division Expense</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 370,212</b>	<b>\$ 370,212</b>	<b>n/a</b>

## Goals and Objectives – Human Resources Division

**#1**  
**Strategic Initiative:** Workforce Development  
**Objective:** Attract top-talented personnel

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Number of days to fill open positions</b>	50	79	65	75	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 organization is sufficiently staffed.

**#2**  
**Strategic Initiative:** Workforce Development  
**Objective:** Develop a highly competent, committed, and supported workforce

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Average training hours per employee</b>	47	N/A	21	20	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.

**#3**  
**Strategic Initiative:** Workforce Development  
**Objective:** Retain talented personnel

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Annualized voluntary turnover rate</b>	< 2.0%	0.9%	0.8%	0.9%	< 2.0%

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

**#4**  
**Strategic Initiative:** Preparedness/Security  
**Objective:** Maintain continuity of service

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Number of tabletop and/or field exercises conducted in response to possible threat or emergency scenarios</b>	≥ 4	0	1	2	4

A benchmark of quarterly (once every three months) tabletop 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 tabletop exercises, but with continued occurrences of mass shootings, workplace violence, thefts, terrorism, and cybercrime, management believes training for these scenarios is prudent.

## Goals and Objectives – Human Resources Division

**#5**  
**Strategic Initiative:** Safety Culture  
**Objective:** Develop a fully trained, educated, and safety aware workforce

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Percent of employees that are First Aid, CPR, and AED certified in the last 2 years	> 90%	95%	79%	79%	> 90%
Percent of employees that have completed field-safety training in the last 2 years	> 90%	80%	92%	80%	> 90%
Percent of employees that have completed Defensive Driving course in the last 3 years	> 90%	80%	61%	61%	> 90%

First Aid/CPR/AED and field-safety training (confined space, fall protection, and trenching) are offered 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.

**#6**  
**Strategic Initiative:** Safety Culture  
**Objective:** Ensure continuous improvement of the Safety Program

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Time since last update of the Safety Manual	≤ 12 months	12	7	18	0
Number of safety audits performed by outside firm each year	≥ 2	2	0	0	2

The Safety Manual is intended to 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.



## 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, 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. Positions that specialize in networking, security systems, and business intelligence are part of the Information Technology Division.

### Budget Highlights

- Increased Salaries & Wages due to merit increases.
- Decreased Employee Benefits due to insurance selections made by employees.
- Decreased Admin – Software, Renewals & Support expense due to the reallocation of Human Resources expenses to a separate category.
- Increased Maintenance – Software, Renewals & Support expense for new SCADA network backup devices.
- Decreased Engineering – Software, Renewals & Support expense due to a one-time purchase of GIS maps in the prior year.
- Increased IT – Software, Renewals & Support expense for Security Information and Event Management software and triennial firewall license renewals.
- Increased Technology, PC & Peripherals expenses for several divisions to purchase additional computers for remote work and to end the use of shared devices across the organization to promote a more hygienic work environment.



	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Information Technology Division</b>						
<b>Personnel Costs</b>						
Salaries & Wages	\$ 402,972	\$ 401,841	\$ 1,131	\$ 423,297	\$ 20,325	5.04%
Overtime Wages	2,000	2,270	(270)	2,000	-	0.00%
Employee Benefits	88,158	79,060	9,097	83,748	(4,410)	-5.00%
FICA - Employer Share	25,109	23,742	1,367	26,245	1,136	4.52%
Medicare - Employer Share	5,873	5,621	252	6,138	265	4.51%
Travel Expense	4,000	2,006	1,994	4,000	-	0.00%
Dues and Fees	500	201	299	250	(250)	-50.00%
Education and Training	10,000	6,016	3,984	9,000	(1,000)	-10.00%
Uniforms	750	393	357	750	-	0.00%
<b>Total Personnel Costs</b>	<b>\$ 539,362</b>	<b>\$ 521,151</b>	<b>\$ 18,211</b>	<b>\$ 555,428</b>	<b>\$ 16,066</b>	<b>2.98%</b>
<b>Non-Personnel Costs</b>						
Automotive Maintenance & Repairs	\$ 1,000	\$ 172	\$ 828	\$ 1,000	\$ -	0.00%
Communications	10,000	10,000	-	12,689	2,689	26.89%
Office Supplies	2,000	2,000	-	2,000	-	0.00%
Gas, Oil & Diesel	2,500	1,131	1,369	2,000	(500)	-20.00%
Food	500	400	100	500	-	0.00%
Safety Supplies & Equipment	500	378	122	500	-	0.00%
General - Software, Renewals and Support	2,000	1,403	597	2,000	-	0.00%
General - Technology, PCs & Peripherals	5,000	2,755	2,245	5,000	-	0.00%
Admin - Software, Renewals and Support	31,130	23,249	7,881	7,883	(23,247)	-74.68%
Admin - Technology, PCs & Peripherals	8,500	7,473	1,027	3,000	(5,500)	-64.71%
HLC - Software, Renewals and Support	11,250	9,167	2,083	11,250	-	0.00%
HLC - Technology, PCs & Peripherals	2,250	975	1,275	5,025	2,775	123.33%
Finance - Software, Renewals and Support	12,200	11,278	922	11,563	(637)	-5.22%
Finance - Technology, PCs & Peripherals	5,200	4,859	341	3,000	(2,200)	-42.31%
Wyckoff - Software, Renewals & Support	13,000	13,000	-	12,795	(205)	-1.58%
Wyckoff - Technology, PCs & Peripherals	6,000	5,215	785	11,000	5,000	83.33%
Quarles - Software, Renewals & Support	12,280	9,078	3,202	12,030	(250)	-2.04%
Quarles - Technology, PCs & Peripherals	9,300	8,922	378	15,000	5,700	61.29%
Trans - Software, Renewals & Support	7,400	5,225	2,175	7,040	(360)	-4.86%
Trans - Technology, PCs & Peripherals	2,000	79	1,921	20,700	18,700	935.00%
Maint - Software, Renewals & Support	196,995	176,120	20,875	228,245	31,250	15.86%
Maint - Technology, PCs & Peripherals	22,500	19,825	2,675	31,700	9,200	40.89%
Engineer - Software, Renewals & Support	210,000	147,973	62,027	162,072	(47,928)	-22.82%
Engineer - Technology, PCs & Peripherals	15,000	13,727	1,273	14,000	(1,000)	-6.67%
HR - Software, Renewals & Support	-	-	-	37,905	37,905	100.00%
HR - Technology, PCs & Peripherals	-	-	-	5,500	5,500	100.00%
Lab - Software, Renewals & Support	16,500	16,500	-	16,308	(192)	-1.16%
Lab - Technology, PCs & Peripherals	4,200	2,655	1,545	15,000	10,800	257.14%
IT - Software, Renewals & Support	58,600	53,327	5,273	105,303	46,703	79.70%
IT - Technology, PC's & Peripherals	10,000	10,000	-	15,000	5,000	50.00%
S&S - Software, Renewals & Support	10,500	6,253	4,247	-	(10,500)	-100.00%
S&S - Technology, PC's & Peripherals	5,000	3,049	1,951	-	(5,000)	-100.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 693,305</b>	<b>\$ 566,188</b>	<b>\$ 127,117</b>	<b>\$ 777,008</b>	<b>\$ 83,703</b>	<b>12.07%</b>
<b>Total Information Technology Expense</b>	<b>\$ 1,232,667</b>	<b>\$ 1,087,339</b>	<b>\$ 145,328</b>	<b>\$ 1,332,436</b>	<b>\$ 99,769</b>	<b>8.09%</b>

## Goals and Objectives – Information Technology Division

## #1

**Strategic Initiative:** Preparedness/Security  
**Objective:** Ensure business viability

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Average response time to a new help desk ticket	≤ 24 hours	N/A	9.4	4.6	≤ 24
Average time to resolve and close a help desk ticket	≤ 3 days	N/A	2.4	1	≤ 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	2018	2019	2020	Goal 2021
Percent of employees that fail surprise phishing email test	0%	8.7%	0%	6.9%	0%

CCMWA 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, we have met the benchmark of zero failures and hope to maintain this benchmark on an annual basis.

## #3

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Percent of workstations with Windows 10 Operating System installed	100%	45%	95%	98%	100%

During 2018, CCMWA 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.



## 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.

<b>Research and Development</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
Other Professional Services	\$ 122,760	\$ 79,416	43,344	\$ 65,000	\$ (57,760)	-47.05%
Hydraulic Model	75,000	81,675	(6,675)	50,000	(25,000)	-33.33%
Miscellaneous Engineering	20,000	4,231	15,770	50,000	30,000	150.00%
Security, SCADA, & I.T. Evaluation	50,000	55,821	(5,821)	50,000	-	0.00%
Business Case Evaluation Program	115,000	110,395	4,605	150,000	35,000	30.43%
CIP Master Plan	25,000	21,608	3,392	10,000	(15,000)	-60.00%
GIS Initiatives	25,000	6,395	18,605	75,000	50,000	200.00%
Energy Optimization Program	36,740	38,820	(2,080)	15,000	(21,740)	-59.17%
WRF Study & Georgia Tech Pilot Study	3,544	3,544	-	-	(3,544)	-100.00%
Surveying & Easements	15,000	15,000	-	15,000	-	0.00%
Internal Corrosion Control Study	200,000	140,254	59,746	160,000	(40,000)	-20.00%
Safety Audits & Investigations	16,000	-	16,000	10,000	(6,000)	-37.50%
Upper Etowah Resource Management	18,000	18,000	-	18,000	-	0.00%
Long Term Water Supply	33,456	35,057	(1,601)	42,800	9,344	27.93%
Allatoona Lake Clean-up / Monitoring	6,000	5,075	925	6,000	-	0.00%
Pipeline Investigations / Monitoring	163,000	162,975	25	135,000	(28,000)	-17.18%
Website & Communications Development	15,000	15,000	-	2,500	(12,500)	-83.33%
Information System Management Study	12,500	2,870	9,630	10,000	(2,500)	-20.00%
Aged Pipe & Critical Valve Replacement Program	-	-	-	40,000	40,000	100.00%
Workforce Development	62,300	48,761	13,539	47,000	(15,300)	-24.56%
Structural Analysis Program	50,000	33,659	16,341	75,000	25,000	100.00%
Production Meter Testing	15,000	-	15,000	100,000	85,000	100.00%
Water Research Initiatives	40,000	52,644	(12,644)	176,600	136,600	341.50%
Residuals Management Study	80,000	60,186	19,814	5,000	(75,000)	-93.75%
External Pipeline Corrosion Control Program	35,000	21,751	13,249	50,000	15,000	42.86%
Education Assistance Program	47,000	35,729	11,271	75,600	28,600	100.00%
Payments to Other Agencies (Research)	99,500	100,230	(730)	92,300	(7,200)	-7.24%
<b>Total Research &amp; Development Expense</b>	<b>\$ 1,380,800</b>	<b>\$ 1,149,096</b>	<b>\$ 231,704</b>	<b>\$ 1,525,800</b>	<b>\$ 145,000</b>	<b>10.50%</b>

## 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.



	2020	2020	Variance	2021	Increase	Increase
Hickory Log Creek Reservoir Division	Budget	Projected	Favorable	Budget	(Decrease)	(Decrease)
		Actual	(Unfavorable)		Over 2020	Over 2020
					Budget (\$)	Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 155,142	\$ 117,318	\$ 37,824	\$ 106,318	\$ (48,824)	-31.47%
Overtime Wages	5,250	-	5,250	2,625	(2,625)	-50.00%
Employee Benefits	33,305	26,320	6,985	22,424	(10,881)	-32.67%
FICA - Employer Share	9,945	6,563	3,382	6,755	(3,190)	-32.08%
Medicare - Employer Share	2,326	1,542	784	1,634	(692)	-29.73%
Travel Expense	1,500	-	1,500	1,500	-	0.00%
Dues and Fees	1,838	1,300	538	1,838	-	0.00%
Education and Training	3,000	64	2,936	1,875	(1,125)	-37.50%
Uniforms	900	648	252	900	-	0.00%
<b>Total Personnel Costs</b>	<b>\$ 213,205</b>	<b>\$ 153,755</b>	<b>\$ 59,198</b>	<b>\$ 145,869</b>	<b>\$ (67,336)</b>	<b>-31.58%</b>
<b>Non-Personnel Costs</b>						
Engineering Services - Dam	\$ 48,750	\$ 22,899	\$ 25,851	\$ 52,125	\$ 3,375	6.92%
Technical Services	11,250	2,754	8,496	10,500	(750)	-6.67%
Motor/Gear Inspections	1,125	-	1,125	-	(1,125)	-100.00%
Biological Monitoring	-	-	-	-	-	0.00%
USGS Monitoring	25,500	24,200	1,300	24,975	(525)	-2.06%
General Maintenance & Repairs	12,749	11,711	1,038	5,250	(7,499)	-58.82%
Electrical Maintenance & Repairs	1,875	1,832	43	1,875	-	0.00%
Coatings Maintenance & Repairs	15,000	-	15,000	-	(15,000)	-100.00%
SCADA Maintenance & Repairs	4,500	2,177	2,323	7,500	3,000	66.67%
Security Maintenance & Repairs	5,250	851	4,399	10,500	5,250	100.00%
Automotive Maintenance & Repairs	1,725	291	1,434	1,350	(375)	-21.74%
Grounds Maintenance	29,250	24,361	4,889	14,250	(15,000)	-51.28%
Rental of Equipment and Vehicles	375	-	375	375	-	0.00%
Liability Insurance	43,725	43,725	-	47,700	3,975	9.09%
Communications	6,968	6,460	507	6,379	(589)	-8.45%
Office Supplies	1,500	1,500	-	1,875	375	25.00%
Natural Gas	750	709	41	750	-	0.00%
Electricity	64,125	56,977	7,148	64,125	-	0.00%
Gas, Oil & Diesel	1,500	512	988	1,875	375	25.00%
Laboratory Supplies and Chemicals	450	-	450	225	(225)	-50.00%
Food	375	27	348	375	-	0.00%
Water Purchases	1,875	487	1,388	1,125	(750)	-40.00%
Janitorial Supplies	525	100	425	375	(150)	-28.57%
Small Equipment	1,125	-	1,125	1,125	-	0.00%
Safety Supplies & Equipment	3,750	1,179	2,571	3,375	(375)	-10.00%
Contingency	39,250	-	39,250	56,250	17,000	43.31%
<b>Total Non-Personnel Costs</b>	<b>\$ 323,267</b>	<b>\$ 202,753</b>	<b>\$ 120,514</b>	<b>\$ 314,254</b>	<b>\$ (9,013)</b>	<b>-2.79%</b>
<b>Total Hickory Log Creek Expense</b>	<b>\$ 536,472</b>	<b>\$ 356,508</b>	<b>\$ 179,712</b>	<b>\$ 460,123</b>	<b>\$ (76,349)</b>	<b>-14.23%</b>

## Goals and Objectives – Hickory Log Creek Reservoir

### #1

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
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	1	2	1	2

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

### #2

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Number of employees that are cross-trained in operating procedures to provide on-call support	≤ 3	1	5	4	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	2018	2019	2020	Goal 2021
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.

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Ensure reservoir is at full capacity on June 1<sup>st</sup></b>	1,060 msl	1,060	1,060	1,060	<b>1,060</b>

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.

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## 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.

### 2020 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 third 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, marking 12 years of the Wyckoff Water Treatment Plant receiving this award.



Wyckoff's Platinum Award



Wyckoff Water Treatment Plant



## Budget Highlights

- Increased Residuals Management expenses due to price increases in the cost of dewatering chemicals.
- Decreased Water Treatment Chemicals expense due reduction in projected water demand for 2021.
- Increased Sewer/Wastewater Handling expense in anticipation of increased sewer discharge fees under an industrial pre-treatment permit from Cobb County.

<b>Wyckoff Division</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 1,345,311	\$ 1,276,424	\$ 68,887	\$ 1,368,227	\$ 22,916	1.70%
Overtime Wages	185,000	155,584	29,416	175,000	(10,000)	-5.41%
Employee Benefits	270,043	247,643	22,400	274,818	4,775	1.77%
FICA - Employer Share	94,880	88,784	6,096	90,681	(4,199)	-4.43%
Medicare - Employer Share	22,190	19,632	2,558	22,377	187	0.84%
Travel Expense	6,000	2,086	3,914	6,000	-	0.00%
Dues and Fees	1,200	1,200	-	2,000	800	66.67%
Education and Training	10,000	7,205	2,795	8,000	(2,000)	-20.00%
Uniforms	7,500	3,551	3,949	6,500	(1,000)	-13.33%
<b>Total Personnel Costs</b>	<b>\$ 1,942,123</b>	<b>\$ 1,802,108</b>	<b>\$ 140,016</b>	<b>\$ 1,953,603</b>	<b>\$ 11,480</b>	<b>0.59%</b>
<b>Non-Personnel Costs</b>						
Motor / Gear Inspection	\$ 100,000	\$ 103,344	\$ (3,344)	\$ 100,000	\$ -	0.00%
Land Application Soil Scientist	55,000	45,356	9,644	55,000	-	0.00%
General Maintenance & Repairs	325,000	325,000	-	330,000	5,000	1.54%
Electrical Maintenance & Repairs	50,000	29,393	20,607	50,000	-	0.00%
Coatings Maintenance & Repairs	204,600	281,201	(76,601)	200,000	(4,600)	-2.25%
SCADA Maintenance & Repairs	120,000	115,786	4,214	120,000	-	0.00%
Security Maintenance & Repairs	15,000	14,737	264	20,000	5,000	33.33%
Residuals Management	415,000	388,279	26,721	467,720	52,720	12.70%
Automotive Maintenance & Repairs	1,500	1,614	(114)	2,000	500	33.33%
Grounds Maintenance	60,000	40,836	19,164	60,000	-	0.00%
Rental of Equipment & Vehicles	5,000	5,181	(181)	5,000	-	0.00%
Communications	56,000	56,000	-	57,796	1,796	3.21%
Office Supplies	5,000	5,000	-	5,000	-	0.00%
Water Treatment Chemicals	1,412,800	1,412,800	-	1,323,750	(89,050)	-6.30%
Natural Gas	10,000	10,000	-	12,000	2,000	20.00%
Electricity	2,500,000	2,500,000	-	2,500,000	-	0.00%
Gasoline, Oil & Diesel Fuel	10,000	7,483	2,517	10,000	-	0.00%
Laboratory Supplies & Chemicals	30,000	18,000	12,000	25,000	(5,000)	-16.67%
Backup / Emergency Electric Power	100,000	78,319	21,681	100,000	-	0.00%
Food	5,000	1,710	3,290	5,000	-	0.00%
Water Purchases	360,000	359,032	968	300,000	(60,000)	-16.67%
Sewer / Wastewater Handling	160,000	34,790	125,210	420,435	260,435	162.77%
Janitorial Supplies	10,000	10,200	(200)	10,000	-	0.00%
Small Equipment	18,000	9,445	8,555	12,000	(6,000)	-33.33%
Safety Supplies & Equipment	19,000	21,548	(2,548)	19,000	-	0.00%
<b>Total Non-Personnel Costs</b>	<b>\$6,046,900</b>	<b>\$5,875,052</b>	<b>\$171,848</b>	<b>\$ 6,209,701</b>	<b>\$ 162,801</b>	<b>2.69%</b>
<b>Total Wyckoff Division Expense</b>	<b>\$ 7,989,023</b>	<b>\$ 7,677,160</b>	<b>\$ 311,864</b>	<b>\$ 8,163,304</b>	<b>\$ 174,281</b>	<b>2.18%</b>

## Goals and Objectives – Wyckoff Division

#1

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Georgia - American Water Works Association Plant of the Year inspection score (* indicates winning year)	> 90	98.6*	97.3*	97.8*	95.0
Number of years of total compliance with all water qualify, monitoring, and reporting requirements (GAWP Platinum Award)	> 5 years	10	11	12	13

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	2018	2019	2020	Goal 2021
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	2018	2019	2020	Goal 2021
Percent of plant operations staff with Class I Water Treatment Operator license	> 50%	53.8%	53.8%	61.5%	> 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, was recently replaced with a new plant that was construction partially within the footprint of the old building. The new Plant 1 began treating water in late 2020.

### 2020 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, marking 12 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 Employee Benefits expense due to insurance selection made by employees.
- Increased various Repair & Maintenance expense categories to address routine maintenance needs in Plant 2.
- Decreased Electricity expense based on historical spending and projected water demand for 2021.
- Increased Sewer/Wastewater Handling expense in anticipation of increased sewer discharge fees under an industrial pre-treatment permit from Cobb County

Quarles Division	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 1,582,712	\$ 1,506,101	\$ 76,611	\$ 1,573,694	\$ (9,018)	-0.57%
Overtime Wages	285,000	217,416	67,584	265,000	(20,000)	-7.02%
Employee Benefits	378,260	384,753	(6,493)	429,791	51,531	13.62%
FICA - Employer Share	115,799	102,647	13,152	114,000	(1,799)	-1.55%
Medicare - Employer Share	27,082	23,616	3,466	26,662	(420)	-1.55%
Travel Expense	6,000	1,329	4,671	6,000	-	0.00%
Dues and Fees	1,500	1,500	-	5,000	3,500	233.33%
Education and Training	12,000	3,511	8,489	9,000	(3,000)	-25.00%
Uniforms	5,000	4,315	685	7,350	2,350	47.00%
<b>Total Personnel Costs</b>	<b>\$ 2,413,353</b>	<b>\$ 2,245,189</b>	<b>\$ 168,164</b>	<b>\$ 2,436,497</b>	<b>\$ 23,144</b>	<b>0.96%</b>
<b>Non-Personnel Costs</b>						
Motor / Gear Inspection	\$ 100,000	\$ 125,209	\$ (25,209)	\$ 178,000	\$ 78,000	78.00%
Land Application Soil Scientist	55,000	45,356	9,644	55,000	-	0.00%
Cleaning Services	36,000	35,201	799	36,000	-	0.00%
General Maintenance & Repairs	300,000	300,000	-	350,000	50,000	16.67%
Electrical Maintenance & Repairs	100,000	179,378	(79,378)	150,000	50,000	50.00%
Coatings Maintenance & Repairs	167,400	186,028	(18,628)	200,000	32,600	19.47%
SCADA Maintenance & Repairs	150,000	44,265	105,735	100,000	(50,000)	-33.33%
Security Maintenance & Repairs	18,000	19,145	(1,145)	20,000	2,000	11.11%
Residuals Management	275,000	254,351	20,649	300,000	25,000	9.09%
Automotive Maintenance & Repairs	5,000	1,778	3,222	2,500	(2,500)	-50.00%
Grounds Maintenance	60,000	58,719	1,281	60,000	-	0.00%
Rental of Equipment & Vehicles	1,500	2,846	(1,346)	1,500	-	0.00%
Communications	53,000	53,000	-	62,307	9,307	17.56%
Office Supplies	5,000	3,660	1,340	5,000	-	0.00%
Water Treatment Chemicals	760,000	742,315	17,685	850,000	90,000	11.84%
Natural Gas	25,000	23,096	1,904	25,000	-	0.00%
Electricity	2,750,000	2,512,996	237,004	2,500,000	(250,000)	-9.09%
Gasoline, Oil & Diesel Fuel	10,000	9,595	405	10,000	-	0.00%
Laboratory Supplies & Chemicals	40,000	40,754	(754)	50,000	10,000	25.00%
Backup / Emergency Electric Power	12,000	27,237	(15,237)	15,000	3,000	25.00%
Food	5,000	990	4,010	5,000	-	0.00%
Sewer / Wastewater Handling	87,000	87,000	-	159,476	72,476	83.31%
Janitorial Supplies	1,500	2,104	(604)	2,500	1,000	66.67%
Small Equipment	20,000	3,837	16,163	10,000	(10,000)	-50.00%
Safety Supplies & Equipment	19,000	16,931	2,069	19,000	-	0.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 5,055,400</b>	<b>\$ 4,775,792</b>	<b>\$ 279,608</b>	<b>\$ 5,166,283</b>	<b>\$ 110,883</b>	<b>2.19%</b>
<b>Total Quarles Division Expense</b>	<b>\$ 7,468,753</b>	<b>\$ 7,020,981</b>	<b>\$ 447,772</b>	<b>\$ 7,602,780</b>	<b>\$ 134,027</b>	<b>1.79%</b>

Goals and Objectives – Quarles Division

**#1**  
**Strategic Initiative:** Water Quality  
**Objective:** Meet or exceed regulatory requirements for water treatment

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
Georgia - American Water Works Association Plant of the Year inspection score (* indicates winning year)	> 90	97.3	92.7	97.0	95.0
Number of years of total compliance with all water qualify, monitoring, and reporting requirements (GAWP Platinum Award)	> 5 years	10	11	12	13

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	2018	2019	2020	Goal 2021
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	2018	2019	2020	Goal 2021
Percent of plant operations staff with Class I Water Treatment Operator license	> 50%	78.6%	73.3%	80%	> 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 and Employee Benefits expense due to the funding of two, previously unfunded positions.
- Increased Communication expenses due to wireless data plan changes that will enable staff to work in the field more easily, with less time in the office.
- Decreased Small Equipment expense based on historical spending patterns.

Maintenance Division	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 1,984,295	\$ 2,119,294	\$ (134,998)	\$ 2,135,779	\$ 151,484	7.63%
Overtime Wages	36,000	22,759	13,241	36,000	-	0.00%
Employee Benefits	437,122	429,666	7,457	480,210	43,088	9.86%
FICA - Employer Share	125,259	128,155	(2,896)	134,651	9,392	7.50%
Medicare - Employer Share	29,295	30,309	(1,014)	31,491	2,196	7.50%
Travel Expense	10,000	-	10,000	8,000	(2,000)	-20.00%
Dues and Fees	3,000	1,050	1,950	3,000	-	0.00%
Education and Training	28,000	8,129	19,871	20,000	(8,000)	-28.57%
Uniforms	10,500	8,719	1,781	10,500	-	0.00%
<b>Total Personnel Costs</b>	<b>\$ 2,663,472</b>	<b>\$ 2,748,080</b>	<b>\$ (84,609)</b>	<b>\$ 2,859,631</b>	<b>\$ 196,159</b>	<b>7.36%</b>
<b>Non-Personnel Costs</b>						
Automotive Maintenance & Repairs	\$ 26,400	\$ 15,716	\$ 10,684	\$ 26,400	\$ -	0.00%
Rental of Equipment and Vehicles	10,000	10,939	(939)	10,000	-	0.00%
Communications	30,000	30,000	-	42,795	12,795	42.65%
Office Supplies	7,500	7,500	-	7,500	-	0.00%
Gas, Oil & Diesel	24,500	11,325	13,175	24,500	-	0.00%
Food	6,000	700	5,300	6,000	-	0.00%
Small Equipment	90,000	25,568	64,432	50,000	(40,000)	-44.44%
Safety Supplies & Equipment	32,000	20,769	11,231	32,000	-	0.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 226,400</b>	<b>\$ 122,517</b>	<b>\$ 103,883</b>	<b>\$ 199,195</b>	<b>\$ (27,205)</b>	<b>-12.02%</b>
<b>Total Maintenance Division Expense</b>	<b>\$ 2,889,872</b>	<b>\$ 2,870,597</b>	<b>\$ 19,274</b>	<b>\$ 3,058,826</b>	<b>\$ 168,954</b>	<b>5.85%</b>



Goals and Objectives – Maintenance Division

**#1**  
**Strategic Initiative:** Infrastructure Sustainability  
**Objective:** React quickly when an unforeseeable event occurs

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
High priority work order request time to completion	< 1 day	<1	8.3	2	< 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	2018	2019	2020	Goal 2021
Preventative/Predictive maintenance work orders vs. corrective work orders	> 80%	74%	73%	78%	> 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	2018	2019	2020	Goal 2021
% of assigned AR&R projects assigned to the Maintenance Division that are completed on time	≥ 80%	75%	100%	73%	≥ 80%
% of assigned AR&R projects assigned to the Maintenance Division that are completed within the budgetary constraints	≥ 80%	100%	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 organization. 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 upon 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.

### 2020 Achievements

- Received the Quality Assurance/Quality Control Gold Award from the Georgia Association of Water Professionals (GAWP) in recognition of their lab inspection score.



Laboratory Staff



Newly completed  
Lab expansion

## Budget Highlights

- Increased Salaries & Wages expense due to merit increases and promotions.
- Increased Electricity expense to accommodate larger square footage of Simmons Laboratory after the building was expanded in 2020.
- Increases to various other expenses categories based on historical spending and one-time purchases.

Laboratory Division	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 613,626	\$ 608,629	\$ 4,997	\$ 630,184	\$ 16,558	2.70%
Overtime Wages	10,000	10,000	-	10,000	-	0.00%
Employee Benefits	139,174	124,195	14,978	135,115	(4,059)	-2.92%
FICA - Employer Share	38,665	36,227	2,438	39,692	1,027	2.66%
Medicare - Employer Share	9,043	8,399	644	9,283	240	2.65%
Travel Expense	5,000	-	5,000	7,300	2,300	46.00%
Dues and Fees	800	258	542	800	-	0.00%
Education and Training	6,200	3,552	2,648	3,100	(3,100)	-50.00%
Uniforms	2,500	1,401	1,099	2,400	(100)	-4.00%
<b>Total Personnel Costs</b>	<b>\$ 825,008</b>	<b>\$ 792,662</b>	<b>\$ 32,347</b>	<b>\$ 837,874</b>	<b>\$ 12,866</b>	<b>1.56%</b>
<b>Non-Personnel Costs</b>						
EPD Compliance Sampling	\$ 39,000	\$ 39,000	\$ -	\$ 39,000	\$ -	0.00%
Cleaning Services	9,000	10,983	(1,983)	12,320	3,320	36.89%
General Maintenance & Repairs	60,000	65,808	(5,808)	65,000	5,000	8.33%
SCADA Maintenance & Repairs	5,000	2,816	2,184	4,200	(800)	-16.00%
Security Maintenance & Repairs	5,000	2,508	2,492	5,000	-	0.00%
Automotive Maintenance & Repairs	3,000	3,000	-	3,000	-	0.00%
Grounds Maintenance	10,000	6,223	3,777	10,000	-	0.00%
Rental Equipment and Vehicles	3,000	1,989	1,011	2,800	(200)	-6.67%
Communications	23,600	23,600	-	23,806	206	0.87%
Office Supplies	6,800	3,621	3,179	5,800	(1,000)	-14.71%
Natural Gas	2,200	1,131	1,069	3,000	800	36.36%
Electricity	17,000	22,528	(5,528)	27,000	10,000	58.82%
Gas, Oil & Diesel	7,000	4,676	2,324	7,000	-	0.00%
Laboratory Supplies	145,000	129,837	15,163	150,000	5,000	3.45%
Food	2,200	500	1,700	2,220	20	0.91%
Janitorial Supplies	1,350	2,509	(1,159)	2,500	1,150	85.19%
Small Equipment	5,000	6,554	(1,554)	5,000	-	0.00%
Safety Supplies & Equipment	2,000	3,203	(1,203)	3,000	1,000	50.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 346,150</b>	<b>\$ 330,486</b>	<b>\$ 15,664</b>	<b>\$ 370,646</b>	<b>\$ 24,496</b>	<b>7.08%</b>

## Goals and Objectives – Laboratory Division

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>GAWP Laboratory Quality Assurance Award Score</b> (* indicates winning year)	> 90%	98.7	98.4*	98.5	> 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 labs scoring over 95% on the review are presented with the GAWP QA/QC Gold Award.

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Relative percent difference between CCMWA TOC samples to EPD results</b>	< 20% diff. ±	14.3%	12.5%	11.1%	≤ 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	2018	2019	2020	Goal 2021
<b>Percent difference between CCMWA trihalomethane samples results to EPD Laboratory results</b>	< 20% diff. ±	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.

### 2020 Achievements

- Received the Georgia Association of Water Professionals (GAWP) Gold Award for scoring 95% or higher on its water system annual review in 2020, for the third year in a row.



Transmission Staff

### Budget Highlights

- Increased Salaries & Wages expense due to merit increases and promotions.
- Increased Employee Benefits expense due to insurance selection made by employees.
- Increased Pipeline Maintenance & Repairs expense due to an increase in location requests and exploratory work in preparation of other agencies' road projects.
- Increased Tank Maintenance & Repairs expense to perform structural repairs to a steel tank, in addition to normal routine maintenance on all tanks.
- Increased Meter Maintenance & Repairs expense due to the cost of with abandoning meters that served a previous customer, the City of Powder Springs.

<b>Transmission Division</b>	2020 Budget	2020 Projected Actual	Variance Favorable (Unfavorable)	2021 Budget	Increase (Decrease) Over 2020 Budget (\$)	Increase (Decrease) Over 2020 Budget (%)
<b>Personnel Costs</b>						
Salaries & Wages	\$ 694,474	\$ 696,873	\$ (2,399)	\$ 727,782	\$ 33,308	4.80%
Overtime Wages	23,500	23,500	-	24,500	1,000	4.26%
Employee Benefits	88,752	86,950	1,802	124,893	36,141	40.72%
FICA - Employer Share	44,515	42,417	2,098	46,642	2,127	4.78%
Medicare - Employer Share	10,411	9,978	433	10,909	498	4.78%
Travel Expense	8,000	1,467	6,533	8,000	-	0.00%
Dues and Fees	500	714	(214)	1,500	1,000	200.00%
Education and Training	12,000	4,751	7,249	9,500	(2,500)	-20.83%
Uniforms	6,000	3,148	2,852	6,000	-	0.00%
<b>Total Personnel Costs</b>	<b>\$ 888,152</b>	<b>\$ 869,798</b>	<b>\$ 18,353</b>	<b>\$ 959,726</b>	<b>\$ 71,574</b>	<b>8.06%</b>
<b>Non-Personnel Costs</b>						
Security Maintenance & Repairs	\$ 2,000	\$ -	\$ 2,000	\$ 2,000	\$ -	0.00%
Pipeline Maintenance & Repairs	800,000	968,142	(168,142)	850,000	50,000	6.25%
Tanks Maintenance & Repairs	85,000	87,778	(2,778)	220,420	135,420	159.32%
Meters Maintenance & Repairs	44,000	7,490	36,510	90,000	46,000	104.55%
Automotive Maintenance & Repairs	20,000	9,989	10,011	20,000	-	0.00%
Right of Way & Tank Grounds Maintenance	600,000	492,040	107,961	600,000	-	0.00%
Rental Equipment and Vehicles	2,500	-	2,500	1,000	(1,500)	-60.00%
Communications	24,000	24,000	-	18,690	(5,310)	-22.13%
Office Supplies	2,000	1,053	947	2,000	-	0.00%
Gas, Oil & Diesel	25,000	21,685	3,315	25,000	-	0.00%
Food	3,500	962	2,538	3,500	-	0.00%
Small Equipment	15,000	4,810	10,190	10,000	(5,000)	-33.33%
Safety Supplies & Equipment	15,000	4,847	10,153	15,000	-	0.00%
<b>Total Non-Personnel Costs</b>	<b>\$ 1,638,000</b>	<b>\$ 1,622,796</b>	<b>\$ 15,204</b>	<b>\$ 1,857,610</b>	<b>\$ 219,610</b>	<b>13.41%</b>
<b>Total Transmission Division Expense</b>	<b>\$ 2,526,152</b>	<b>\$ 2,492,594</b>	<b>\$ 33,557</b>	<b>\$ 2,817,336</b>	<b>\$ 291,184</b>	<b>11.53%</b>



## Goals and Objectives – Transmission Division

#1

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>GAWP Water Distribution System annual review score</b>	> 95	99.9	98.0	120.0	≥ 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. After receiving four consecutive Gold Awards, CCMWA will be eligible for Platinum Status in the fifth year.

#2

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

KPI Metric	Benchmark	2018	2019	2020	Goal 2021
<b>Number of locate points mapped into GIS system during the year</b>	100	100	192	68	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	2018	2019	2020	Goal 2021
<b>Number of meters changed out per year</b>	≥ 5	5	6	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	2018	2019	2020	Goal 2021
<b>Percent of transmission system valves exercised/evaluated on a yearly basis</b>	≥ 33%	57%	53%	16%	> 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 2021 - 2025

Project Description	Estimated Project Timeline	Prior Year(s) Investments	2021 Budgeted Cost	2022 Estimated Cost	2023 Estimated Cost	2024 Estimated Cost	2025 Estimated Cost	5- Year Estimated Cost
<b>Aged Pipe Replacements</b>								
U.S Highway 41 Parallel 20" Water Main	2017-2021	3,518,341	672,363	-	-	-	-	672,363
West Side Loop Section #2, 36" Water Main	2018-2022	10,180,547	9,832,143	3,462,348	-	-	-	13,294,491
Blackjack Tank Supply 36" Water Main	2019-2023	3,468,970	14,477,171	7,848,611	500,000	-	-	22,825,781
Factory Shoals 30" & Six Flags 24" Water Mains	2022-2025	-	-	442,000	6,023,728	3,144,754	467,943	10,078,425
Mars Hill Church Rd to Pine Mountain 36" Water Main	2022-2026	-	-	488,800	10,118,058	10,522,780	6,107,816	27,237,454
Pine Mountain to Barrett Pkwy 42"/30" Water Main	2023-2027	-	-	-	529,984	10,692,301	11,119,993	22,342,278
Trickum Road 20" Water Main	2024-2026	-	-	-	-	337,459	4,130,829	4,468,288
Wooten Lake Road 24" Water Main	2025-2027	-	-	-	-	-	321,711	321,711
<b>Blow-Off Replacements</b>								
BOR 2021 - Wyckoff East to Acworth Due West Rd (5)	2020-2021	15,000	1,085,000	-	-	-	-	1,085,000
BOR 2022 - Acworth Due West Rd to McEver Park Dr (7)	2021-2022	-	15,000	1,544,400	-	-	-	1,559,400
BOR 2023 - Beech Haven Trail to Maner Rd (6)	2022-2023	-	-	15,600	1,389,856	-	-	1,405,456
BOR 2024 - Mableton Pkwy/Discovery Blvd/Riverview Rd (8)	2023-2024	-	-	-	16,224	1,895,396	-	1,911,620
BOR 2025 - Six Flags Way/Lee Ind./Mableton Pkwy (6)	2024-2025	-	-	-	-	16,873	1,503,268	1,520,141
BOR 2026 - Legacy Park to Jiles Rd (8)	2025-2026	-	-	-	-	-	17,548	17,548
<b>Pipeline Improvements</b>								
Wyckoff 42" Raw Water Pipeline Improvements	2020-2023	228,000	4,269,000	9,377,680	540,800	-	-	14,187,480
Maner Road 36" Water Main Replacement	2020-2023	180,000	1,500,000	8,320,000	1,081,600	-	-	10,901,600
Cedarcrest New 16" Water Main	2022-2023	-	-	208,000	1,946,880	-	-	2,154,880
<b>Plant Improvements</b>								
Quarles Water Treatment Plant 1 Replacement	2014-2021	71,299,279	7,402,831	-	-	-	-	7,402,831
Quarles Plant 2 SCADA Replacement	2018-2024	523,502	2,000,000	8,580,000	8,923,200	1,124,864	-	20,628,064
Quarles Taste & Odor Process Improvements	2020-2022	305,832	1,000,000	3,800,000	-	-	-	4,800,000
Quarles Recycle Pump Station Electrical Upgrades	2020-2022	-	700,000	1,300,000	-	-	-	2,000,000
Quarles Reservoir Cleaning	2020-2022	50,000	1,500,000	1,500,000	-	-	-	3,000,000
Quarles Plant 2 Filter Valve & Actuator Replacements	2021-2023	-	500,000	2,340,000	2,433,600	-	-	5,273,600
Quarles Main Switchgear Replacement	2022-2024	-	-	520,000	2,433,600	2,530,944	-	5,484,544
Quarles Plant 2 Sludge Removal Improvements	2023-2025	-	-	-	324,480	1,012,378	935,887	2,272,744
Quarles Thickener Addition	2023-2024	-	-	-	173,056	1,619,804	-	1,792,860
Quarles Chemical Building Replacement	2023-2025	-	-	-	865,280	4,049,510	4,211,491	9,126,281
Quarles Chlorine Feed System Replacement	2023-2025	-	-	-	540,800	2,812,160	2,339,717	5,692,677
Quarles Dewatering Equipment Replacement	2024-2026	-	-	-	-	899,891	4,211,491	5,111,382
Quarles Campus Building Improvements	2025-2027	-	-	-	-	-	233,972	233,972
Quarles 2MG Clearwell Replacement	2025-2027	-	-	-	-	-	467,943	467,943
Wyckoff 6MG Clearwell Addition	2019-2022	2,107,939	12,746,184	3,691,185	-	-	-	16,437,369
Wyckoff Maintenance Facility Improvements	2019-2022	73,986	50,000	832,000	1,189,760	-	-	2,071,760
Wyckoff Press Filtrate Discharge Pre-Treatment	2021-2022	-	100,000	1,040,000	432,640	-	-	1,572,640
Wyckoff Thickener No. 4 Addition, Replace No. 1 & 2	2022-2024	-	-	520,000	2,704,000	2,249,728	-	5,473,728
Wyckoff Dewatering Equipment & Building Modification	2023-2025	-	-	-	865,280	4,499,456	3,743,547	9,108,283
<b>Pump Station Improvements</b>								
Wyckoff Raw Water Pump Station Replacement	2024-2028	-	-	-	-	449,946	7,019,151	7,469,097
<b>Water Storage Tank Improvements</b>								
Pete Shaw Tank No. 2 (5 MG)	2018-2021	2,710,212	150,000	-	-	-	-	150,000
Pine Mountain Tank No. 1 Replacement (5 MG)	2021-2023	-	100,000	1,976,000	1,622,400	-	-	3,698,400
Tank Painting Program	Ongoing	-	-	-	-	22,497	795,504	818,001
<b>Other Capital Projects</b>								
Sharp Mountain Creek Reservoir Land Purchases			Contingency	Contingency	Contingency	Contingency	Contingency	Contingency
Department of Transportation Projects			1,361,480	1,040,000	1,081,600	1,124,864	1,169,859	5,777,803
Asset Renewal & Replacement Projects			7,352,502	6,760,000	7,030,400	7,311,616	7,604,081	36,058,599
General Contingency			2,000,000	2,500,000	2,500,000	2,500,000	2,500,000	12,000,000
<b>Totals</b>			<b>68,813,673</b>	<b>68,106,623</b>	<b>55,267,226</b>	<b>58,817,222</b>	<b>58,901,751</b>	<b>309,906,495</b>

**Note:**

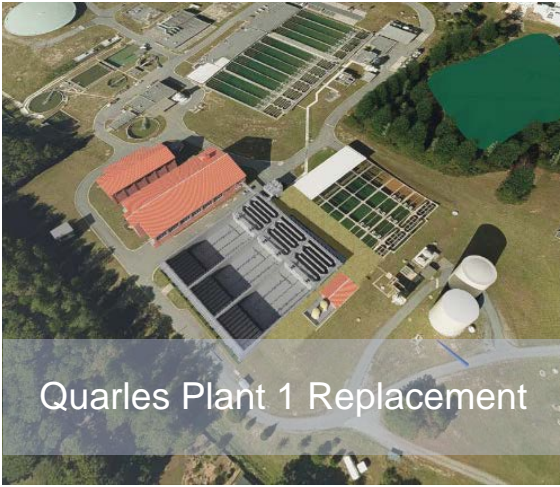
Projects in **green font** are scheduled to be under design as of December 31, 2020.

Projects in **purple font** are scheduled to be under construction as of December 31, 2020.

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, 2021.

## Capital Project Descriptions





## 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	2020 Actual Spending (estimated)	2021 Budgeted Spending	Total Anticipated Spending at Completion
Design Engineering	171,806	-	-	171,806
Construction Engineering	121,466	152,400	25,000	298,866
Construction (*)	1,798,153	1,247,640	647,363	3,693,116
Other Professional Services	1,916	-	-	1,916
Land & Easements	25,000	-	-	25,000
<b>Totals</b>	<b>\$ 2,118,341</b>	<b>\$ 1,400,000</b>	<b>\$ 672,363</b>	<b>\$ 4,190,704</b>

## 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, CCMWA 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 2021	Construction Contract:	\$4,945,032

(\*) Final construction costs are expected to be lower than the construction contract value.

## Project Pictures

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



Pipeline path runs parallel to U.S. Highway 41 and crosses under Allatoona Lake. The lake crossing was planned for winter when lake levels are low enough to allow for construction. This picture shows the pipeline path in an area usually covered by water.



## 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	2020 Actual Spending (estimated)	2021 Budgeted Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	254,100	-	-	-	254,100
Construction Engineering	14,057	278,634	301,871	101,871	696,433
Construction	1,242,793	8,325,302	9,338,104	3,168,307	22,074,505
Other Professional Services	3,189	350	148,230	148,231	300,000
Land & Easements	62,123	-	43,938	43,939	150,000
<b>Totals</b>	<b>\$ 1,576,262</b>	<b>\$ 8,604,286</b>	<b>\$ 9,832,143</b>	<b>\$ 3,462,348</b>	<b>\$ 23,475,038</b>

## 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, CCMWA 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

### Project Pictures



## 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	Prior Year(s) Actual Spending	2020 Actual Spending (Estimated)	2021 Budgeted Spending	2022 - 2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	370,808	179,192	-	-	550,000
Construction Engineering	-	50,000	458,526	229,263	737,789
Construction	-	1,794,491	14,018,125	8,119,348	23,931,962
Other Professional Services	15,058	19,524	418	-	35,000
Land & Easements	83,104	956,793	102	-	1,040,000
<b>Totals</b>	<b>\$ 468,970</b>	<b>\$ 3,000,000</b>	<b>\$ 14,477,171</b>	<b>\$ 8,348,611</b>	<b>\$ 26,294,751</b>

## 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, CCMWA 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:	\$23,931,962



# Project Pictures





## 2021 Blow-Off Replacements

This project will replace four 6” and 12” saddle outlets and associated blow-off piping on existing 48”and 36” ductile iron pipe (DIP) water mains installed between 1984 and 1985. Beyond this replacement work, the project also includes the abandonment of approximately 1,800 linear feet of 20” prestressed concrete cylinder pipe on Acworth Due West Road and the replacement of a 48” gate valve to improve reliability of the transmission system. Although the ductile iron pipelines are less than 40 years old, they have experienced blow-off saddle failures in 2011 and 2014.

Classification	2020 Actual Spending (Estimated)	2021 Budgeted Spending	Total Anticipated Spending at Completion
Design Engineering	15,000	83,404	98,404
Construction Engineering	-	-	-
Construction	-	1,001,596	1,001,596
Other Professional Services	-	-	-
<b>Totals</b>	<b>\$ 15,000</b>	<b>\$ 1,085,000</b>	<b>\$ 1,100,000</b>

## Project Justification and Operating Impact

CCMWA has created a multi-year program to replace critical blow-off assemblies to prevent failure of these appurtenances. Delay in addressing this ongoing risk could result in widespread water outages, property damage and personal injury. Prioritization of the critical blow-offs throughout CCMWA’s transmission system was generated from information gathered for the Aged Pipe Replacement Program. A procurement plan for effective and efficient replacement of the identified blow-offs was then developed by staff.

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:	\$98,404
Scheduled Completion Date:	Fiscal Year 2021	Construction Contract:	TBD

## 2022 Blow-Off Replacements

This project will replace seven 8” and 12” saddle outlets and associated blow-off piping on existing 48” and 42” ductile iron pipe (DIP) water mains installed between 1994 and 1999. Although the ductile iron pipelines are less than 30 years old, they have experienced blow-off saddle failures in 2014 and 2017.

Classification	2020 Actual Spending (Estimated)	2021 Budgeted Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	15,000	85,000	100,000
Construction Engineering	-	-	-	-
Construction	-	-	1,459,400	1,459,400
Other Professional Services	-	-	-	-
<b>Totals</b>	-	<b>\$ 15,000</b>	<b>1,544,400</b>	<b>\$ 1,559,400</b>

## Project Justification and Operating Impact

CCMWA has created a multi-year program to replace critical blow-off assemblies to prevent failure of these appurtenances. Delay in addressing this ongoing risk could result in widespread water outages, property damage and personal injury. Prioritization of the critical blow-offs throughout CCMWA’s transmission system was generated from information gathered for the Aged Pipe Replacement Program. A procurement plan for effective and efficient replacement of the identified blow-offs was then developed by staff.

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 2021	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2022	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 Actual Spending (Estimated)	2021 Budgeted Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	127,520	-	-	-	127,520
Construction Engineering	-	155,288	112,320	50,000	317,608
Construction	-	4,072,575	9,191,977	465,800	13,770,352
Other Professional Services	4,617	37,000	33,383	25,000	100,000
Land & Easements	95,863	4,137	-	-	100,000
<b>Totals</b>	<b>\$ 228,000</b>	<b>\$ 4,269,000</b>	<b>\$ 9,337,680</b>	<b>\$ 540,800</b>	<b>\$ 14,415,480</b>

## 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, CCMWA 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:	\$445,128
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 Actual Spending (Estimated)	2021 Budgeted Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	180,000	320,000	-	-	500,000
Construction Engineering	-	50,000	450,000	32,043	532,043
Construction	-	930,000	7,670,000	1,049,557	9,649,557
Other Professional Services	-	100,000	100,000	-	200,000
Land & Easements	-	100,000	100,000	-	200,000
<b>Totals</b>	<b>\$ 180,000</b>	<b>\$ 1,500,000</b>	<b>\$ 8,320,000</b>	<b>\$ 1,081,600</b>	<b>\$ 11,081,600</b>

## 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	2020 Actual Spending (estimated)	2021 Budgeted Spending	Total Anticipated Spending at Completion
Design Engineering	2,777,276	-	-	2,777,276
Construction Engineering	3,248,051	1,363,697	522,898	5,134,646
Construction (*)	46,255,220	17,437,548	6,867,341	70,560,109
Materials	12,909	187,170	-	200,079
Other Professional Services	5,823	11,585	12,592	30,000
<b>Totals</b>	<b>\$ 52,299,789</b>	<b>\$ 19,000,000</b>	<b>\$ 7,402,831</b>	<b>\$ 78,702,110</b>

## Project Justification and Operating Impact

Quarles Plant 1 was built in the 1950's as CCMWA's original water treatment plant and has now reached the end of its useful life and is in constant need of repairs.

The new Quarles Water Treatment Plant 1 is not expected to have a major impact on the operating budget because it will have a similar treatment capacity to the plant it replaced. Electricity and water treatment chemical costs should remain constant after the new plant is completed, but repair and maintenance expenses for Quarles Plant 1 are expected to 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 2022	Construction Contract:	\$71,790,109

(\*) Final construction costs are expected to be lower than the construction contract value.

## Project Pictures



Aerial view of construction progress as of November 2020



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



New Quarles Plant 1 filter gallery, under construction



## 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, server 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.

Classification	Prior Year(s) Actual Spending	2020 Actual Spending (estimated)	2021 Budgeted Spending	2022 Estimated Spending	2023 - 2024 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	499,637	842,725	-	-	1,342,362
Construction Engineering	-	-	200,000	625,785	1,051,570	1,877,355
Construction	-	-	931,140	7,870,882	8,829,827	17,631,849
Materials	-	-	-	83,333	166,667	250,000
Other Professional Services	23,502	363	26,135	-	-	50,000
<b>Totals</b>	<b>\$ 23,502</b>	<b>\$ 500,000</b>	<b>\$2,000,000</b>	<b>\$ 8,580,000</b>	<b>\$10,048,064</b>	<b>\$ 21,151,566</b>

## Project Justification and Operating Impact

The SCADA system has become an integral part of the water treatment process since its installation almost 20 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 decrease the cost of maintaining aging equipment. The Quarles Division budget for SCADA maintenance and repairs has increased in the last three years in response to failing equipment. After the SCADA system is upgraded, maintenance costs for SCADA should decrease in the Quarles operating budget.

## Project Details

Project Manager:	Lance Buchanan		
Project Start Date:	Fiscal Year 2018	Engineering Contract:	\$3,219,717
Scheduled Completion Date:	Fiscal Year 2024	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	Prior Year(s) Actual Spending	2020 Actual Spending (estimated)	2021 Budgeted Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	20,832	115,072	-	-	135,904
Construction Engineering	-	50,000	54,055	100,000	204,055
Construction	-	119,928	895,945	3,645,000	4,665,873
Other Professional Services	-	-	50,000	50,000	100,000
<b>Totals</b>	<b>\$ 20,832</b>	<b>\$ 285,000</b>	<b>\$ 1,000,000</b>	<b>\$ 3,800,000</b>	<b>\$ 5,105,832</b>

## 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:	Rita Neely		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	\$339,959
Scheduled Completion Date:	Fiscal Year 2022	Construction Contract:	TBD



## Quarles Recycle Pump Station Electrical Upgrades

This project will replace the existing Quarles Recycle Pump Station electrical gear and building with new solid-state starters and a brick building. The project will also address worker safety, with larger doors and easier egress, as well as newer technology to decrease the opportunity for an ARC flash to occur. The new equipment will increase reliability by having dual feeds from the two separate substations currently feeding the Quarles Water Treatment Plant. Lastly, the project will install a flow control device to allow Operators to decrease flow from the recycle tank back to the raw water supply of the treatment plant, increasing Operators' ability to mitigate potential water quality issues caused by the recycle stream.

Classification	2021 Budgeted Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	150,000	-	150,000
Construction Engineering	25,000	75,000	150,000
Construction	473,000	1,225,000	1,698,000
Other Professional Services	2,000	-	2,000
<b>Totals</b>	<b>\$ 700,000</b>	<b>\$ 1,300,000</b>	<b>\$ 2,000,000</b>

## Project Justification and Operating Impact

The electrical equipment at the current Quarles Recycle Pump Station has reached the end of its useful life, causing frequent, unplanned maintenance to keep the equipment operational.

Electrical maintenance and repair costs are classified in the Quarles Division operating budget and costs associated with these types of repairs are expected to decrease as the average age of electrical equipment decreases.

## Project Details

Project Managers:	Rita Neely		
Project Start Date:	Fiscal Year 2021	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2022	Construction Contract:	TBD

## Quarles Reservoir Cleaning

The Quarles Water Treatment Plant utilizes an approximate 7.5-acre reservoir for temporary storage of raw water pumped from the Chattahoochee River by the Quarles Raw Water Intake. The reservoir provides for equalization of the raw water, additional capacity in the event of a failure of the intake or contamination plume in the Chattahoochee River, and optimization of pumping schedules to reduce power usage. Preliminary engineering for this project was originally scheduled to begin in 2021; however, in the summer of 2019, an unprecedented episode of increased growth of aquatic plant vegetation and algae in the reservoir created problems in the downstream treatment process. This event caused the project scheduled to be escalated, with design occurring in 2020 and construction activities beginning in 2021.

Classification	2020 Actual Spending (estimated)	2021 Budgeted Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	50,000	145,000	-	195,000
Construction Engineering	-	55,000	55,000	110,000
Construction	-	1,295,000	1,440,000	2,735,000
Other Professional Services	-	5,000	5,000	10,000
<b>Totals</b>	<b>50,000</b>	<b>\$ 1,500,000</b>	<b>\$ 1,500,000</b>	<b>\$ 3,050,000</b>

## Project Justification and Operating Impact

Sediment builds up in the reservoir over time, reducing its storage capacity and its ability to function effectively. The reservoir was last cleaned in 2010 and since then, sediment levels have been monitored periodically to determine when the next cleaning will be required. Removing the accumulated sediment will significantly reduce the potential for growth of aquatic vegetation in the reservoir.

This project will not have an annual impact on the operating budget, but it does help the Quarles Division control costs related to water treatment chemicals. Improved conditions in the reservoir will help to mitigate water quality issues coming into the treatment process, which would require more chemicals to address than water without algae and vegetation.

## Project Details

Project Managers:	Tom Ginn & Lance Buchanan		
Project Start Date:	Fiscal Year 2020	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2022	Construction Contract:	TBD

## Quarles Plant 2 Filter Valve & Actuator Replacements

This project will replace the filter valves on Filters 1 - 11 and the actuators on Filters 4 -11 in the Quarles Water Treatment Plant 2, the actuators in the High Service Pump Station and Transfer Pump Station, and the oil-actuated cylinder valves at the Quarles Raw Water Pump Station. All actuators will be replaced with electric operated actuators.

Classification	2021 Budgeted Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	400,000	-	-	400,000
Construction Engineering	10,000	70,000	70,000	150,000
Construction	65,000	2,245,000	2,338,600	4,648,600
Other Professional Services	25,000	25,000	25,000	75,000
<b>Totals</b>	<b>\$ 500,000</b>	<b>\$ 2,340,000</b>	<b>\$ 2,433,600</b>	<b>\$ 5,273,600</b>

## Project Justification and Operating Impact

The current valves and actuator equipment are hydraulic (oil) actuators which have reached the end of their useful lives and are prone to leaks. Hydraulic actuators also require air compressors and oil accumulators to be maintained in case of a power failure. Electric actuators will increase reliability and eliminate the need for additional equipment.

Maintenance and repair costs associated with actuators are classified in the Quarles Division operating budget and costs associated with these types of repairs are expected to decrease as the average age of plant equipment decreases.

## Project Details

Project Managers:	Lance Buchanan		
Project Start Date:	Fiscal Year 2021	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2023	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	Prior Year(s) Actual Spending	2020 Actual Spending (estimated)	2021 Budgeted Spending	2022 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	103,244	111,551	-	-	214,795
Construction Engineering	-	111,116	218,798	109,399	439,313
Construction	-	1,781,123	10,673,385	5,336,692	17,791,200
Other Professional Services	-	905	50,000	49,095	100,000
<b>Totals</b>	<b>\$ 103,244</b>	<b>\$ 2,004,695</b>	<b>\$ 12,746,184</b>	<b>\$ 3,691,185</b>	<b>\$ 18,545,308</b>

## 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:	\$654,108
Scheduled Completion Date:	Fiscal Year 2022	Construction Contract:	\$17,791,200

## 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 1997 for a smaller staff than is currently housed in the building and was not designed to contain communication hub equipment. Interim building improvements have been made as part of this project, including the replacement of ventilation equipment in areas where electronics are stored. 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 organization.

Classification	Prior Year(s) Actual Spending	2020 Actual Spending (estimated)	2021 Budgeted Spending	2022 - 2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	-	-	50,000	50,000	100,000
Construction Engineering	-	-	-	100,000	100,000
Construction	-	-	-	1,766,760	1,766,760
Materials	48,094	25,892	-	100,000	173,986
Other Professional Services	-	-	-	5,000	5,000
<b>Totals</b>	<b>\$ 48,094</b>	<b>\$ 25,892</b>	<b>\$ 50,000</b>	<b>\$ 2,021,760</b>	<b>\$ 2,145,746</b>

## 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:	TBD		
Project Start Date:	Fiscal Year 2019	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2023	Construction Contract:	TBD



## Wyckoff Press Filtrate Discharge Pre-Treatment

The Wyckoff Water Treatment plant will need to acquire an industrial wastewater discharge permit from the Cobb County Water System for use of the wastewater system to dispose of Press Filtrate from the Residuals process. This permit has specific limits on the water quantity and quality that can be discharged to the sewer. This project will work with Cobb County Water System to determine the specific requirements of Wyckoff's permit then design and install the required equipment to meet the permit requirements. Most likely the permit will require the addition of a flow meter, online pH analyzer, and possibly the addition of a chemical system to neutralize the press filtrate.

Classification	2021 Budgeted Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	100,000	50,000	-	150,000
Construction Engineering	-	75,000	25,000	100,000
Construction	-	913,000	407,640	1,320,640
Other Professional Services	-	2,000	-	2,000
<b>Totals</b>	<b>\$ 100,000</b>	<b>\$ 1,040,000</b>	<b>\$ 432,640</b>	<b>\$ 1,572,640</b>

## Project Justification and Operating Impact

This project will address a regulatory requirement from Cobb County Water System, the entity that operates wastewater treatment plants in the county.

The industrial wastewater discharge permit will increase sewer fees in the Wyckoff Division operating budget beginning in 2021. The estimated cost of the new permit is approximately \$950,000, to be paid in monthly installments over a 3-year period. If the completed project requires a chemical system, the Wyckoff Division budget will also have increased water treatment chemical expenses beginning in 2024.

## Project Details

Project Managers:	Rita Neely		
Project Start Date:	Fiscal Year 2021	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2023	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	2020 Actual Spending (estimated)	2021 Budgeted Spending	Total Anticipated Spending at Completion
Design Engineering	156,562	-	-	156,562
Construction Engineering	2,701	75,650	-	78,350
Construction	-	2,470,300	150,000	2,620,300
Other Professional Services	330	4,670	-	5,000
<b>Totals</b>	<b>\$ 159,593</b>	<b>\$ 2,550,620</b>	<b>\$ 150,000</b>	<b>\$ 2,860,212</b>

## 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 Shaw tank is also at risk when the tank is out of service and during periods of high water demand due to the area's elevation.

Operating costs related to an additional storage tank include general tank maintenance, regular cleanings, and inspections. These costs are estimated to be approximately \$20,000 every other 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

## Project Pictures



## Pine Mountain Tank No. 1 Replacement

This project will replace the existing steel 4.5-million-gallon finished water storage tank at the Pine Mountain location with a new 4.5-million-gallon finished water storage tank.

Classification	2021 Budgeted Spending	2022 Estimated Spending	2023 Estimated Spending	Total Anticipated Spending at Completion
Design Engineering	100,000	100,000	-	200,000
Construction Engineering	-	50,000	50,000	100,000
Construction	-	1,824,000	1,572,400	3,396,400
Other Professional Services	-	2,000	-	2,000
<b>Totals</b>	<b>\$ 100,000</b>	<b>\$ 1,976,000</b>	<b>\$ 1,622,400</b>	<b>\$ 3,698,400</b>

## Project Justification and Operating Impact

During regular maintenance in 2020, staff discovered that the existing steel tank has serious structural deficiencies. Emergency repairs were made, and a full evaluation of the tank's structural integrity was performed. While the tank is currently stable, additional repairs will be needed to keep the tank functional for 5+ years. A cost analysis indicated that replacement of the tank would be more cost effective than making the necessary repairs.

This project will not have an annual impact on the operating budget; however, every other year the Transmission Division budget includes approximately \$20,000 under tank maintenance and repairs for cleaning and inspection of each water storage tank.

## Project Details

Project Managers:	Rita Neely		
Project Start Date:	Fiscal Year 2021	Engineering Contract:	TBD
Scheduled Completion Date:	Fiscal Year 2023	Construction Contract:	TBD

## Asset Renewal & Replacement Projects

	Prior Year Allocations Carried Over	2021 Allocation	Total Project Allocation	Estimated Prior Year Investments	2021 Budgeted Project Spending
<b>Engineering</b>					
<b>Remote Flow and Pressure Monitoring Sites (5 total)</b>	110,550	-	110,550	37,054	73,496
Remote Flow and Pressure Monitoring Sites (2 total)	-	85,800	85,800	-	85,800
Syrinx PipeMinder Replacement (15 units)	-	25,000	25,000	-	25,000
	110,550	110,800	221,350	37,054	184,296
<b>Information Technology</b>					
Wyckoff Maintenance Building Multi-function Printer	-	9,000	9,000	-	9,000
Conference Room "A" Video Conference System	-	11,000	11,000	-	11,000
Board Room Live Stream Video Conference System	-	18,600	18,600	-	18,600
	-	38,600	38,600	-	38,600
<b>Security</b>					
<b>Wyckoff Main Gate Guard Shack Installation</b>	230,000	70,000	300,000	15,816	284,184
Quarles Plant and Intake Intercom Installations	-	15,000	15,000	-	15,000
Wyckoff Intake Gate and Gate Operator Replacement	-	11,300	11,300	-	11,300
Remote Site Security System Upgrades for Smart Phone Access	-	29,600	29,600	-	29,600
Laboratory Gate Intercom and Card Reader Installation	-	14,500	14,500	-	14,500
Admin Building Exterior and Interior Camera Replacements	-	20,300	20,300	-	20,300
	230,000	160,700	390,700	15,816	374,884
<b>Hickory Log Creek</b>					
Vertical Turbine Raw Water Pump Rebuild	-	60,000	60,000	-	60,000
Replace 2010 Ford F150 (Vehicle 10-10)	-	39,000	39,000	-	39,000
Electric Valve Actuator Replacement	-	16,000	16,000	-	16,000
	-	115,000	115,000	-	115,000
<b>Wyckoff Treatment Division</b>					
<b>Raw Water Pump &amp; Motor #5 Rebuild</b>	1,424,185	-	1,424,185	440,613	983,572
<b>Thickener #3 Control Panel Replacement</b>	120,000	18,235	138,235	85,044	53,191
<b>Wyckoff Intake and Generator PLC Processor Upgrade</b>	110,000	30,000	140,000	-	140,000
Wyckoff Maintenance Building Server Room UPS Replacement	-	22,500	22,500	-	22,500
Wyckoff Panelview Control Zones	-	113,000	113,000	-	113,000
Wyckoff Redundant/Hot Standby PLC Upgrades	-	72,000	72,000	-	72,000
Wyckoff SCADA Network Segmentation	-	110,000	110,000	-	110,000
Residuals Yard Concrete Pad Extension	-	210,000	210,000	-	210,000
	1,654,185	575,735	2,229,920	525,657	1,704,263

	Prior Year Allocations Carried Over	2021 Allocation	Total Project Allocation	Estimated Prior Year Investments	2021 Budgeted Project Spending
<b>Quarles Treatment Division</b>					
Quarles RWPS #1 Beck Actuator Installation	346,490	-	346,490	277,275	69,215
Q2 Effluent Valve Beck Actuator Replacements	362,087	(15,796)	346,291	315,144	31,146
Hypo Building HVAC Improvements	200,000	100,000	300,000	26,277	273,723
Liquid Lime System for Quarles Residuals Management	1,456,000	843,000	2,299,000	151,325	2,147,675
Q2 Filter Building Beck Actuator Replacements	1,540,350	-	1,540,350	1,416,855	123,495
Quarles RWPS #2 Beck Actuator Installation	536,515	-	536,515	484,366	52,149
Rebuild Residuals Management Filter Press #2	150,000	36,186	186,186	705	185,481
Quarles Raw Water #2 Motor Refurbishment	-	30,000	30,000	-	30,000
Quarles Raw Water #2 Pump Rebuild	-	79,475	79,475	-	79,475
Quarles RWPS Rakes 4, 5, & 6 Drive Chain Replacement	-	45,000	45,000	-	45,000
Sodium Hypochlorite Feeders (3) Replacement	-	35,000	35,000	-	35,000
Replace 2006 International Dump Truck (Vehicle 06-02)	-	150,000	150,000	-	150,000
Quarles Transfer Pump #4 Rebuild	-	34,100	34,100	-	34,100
Quarles Recycle Pump #3 Rebuild	-	22,125	22,125	-	22,125
Quarles High Service Pump #4 Rebuild	-	21,875	21,875	-	21,875
Quarles High Service Pump #5 VFD Capacitors Replacement	-	85,000	85,000	-	85,000
Press Feed Pump - New Purchase	-	56,000	56,000	-	56,000
Raw Water #1 Vacuum Priming System Replacement	-	50,000	50,000	-	50,000
High Service Pump Vacuum Priming System Replacement	-	50,000	50,000	-	50,000
	4,591,442	1,621,965	6,213,407	2,671,948	3,541,459
<b>Maintenance</b>					
Replace 2010 Ford F-150 (Vehicle 10-06)	-	57,000	57,000	-	57,000
Replace 2009 E350 Transit Van (Vehicle 09-06)	-	40,000	40,000	-	40,000
	-	97,000	97,000	-	97,000
<b>Laboratory</b>					
Replace 2009 Chevrolet Impala (Vehicle 09-01)	-	35,000	35,000	-	35,000
	-	35,000	35,000	-	35,000
<b>Transmission</b>					
Pipe Yard Replacement Inventory - 2021	-	200,000	200,000	-	200,000
Meter Replacement - Cleburne Pump Station (Acct 5-5)	-	40,000	40,000	-	40,000
Meter Replacement - Cobb Hwy 41/Franklin Dr (Acct 13-10)	-	40,000	40,000	-	40,000
Meter Replacement - Marietta Hwy 41/Franklin Dr (Acct 12-11)	-	40,000	40,000	-	40,000
Meter Replacement - South Cobb Dr/Ridge Rd (Acct 10-9)	-	50,000	50,000	-	50,000
New Holland Front End Loader Replacement	-	102,000	102,000	-	102,000
Crom Guardian Rail System for Brush Mountain Tank	-	40,000	40,000	-	40,000
Reservation for Unplanned Pipe & Valve Replacements	-	750,000	750,000	-	750,000
	-	1,262,000	1,262,000	-	1,262,000
<b>Totals</b>	<b>\$ 6,586,177</b>	<b>\$ 4,016,800</b>	<b>\$ 10,602,977</b>	<b>\$ 3,250,475</b>	<b>\$ 7,352,502</b>

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



## Completed Projects



Facilities



Pipelines

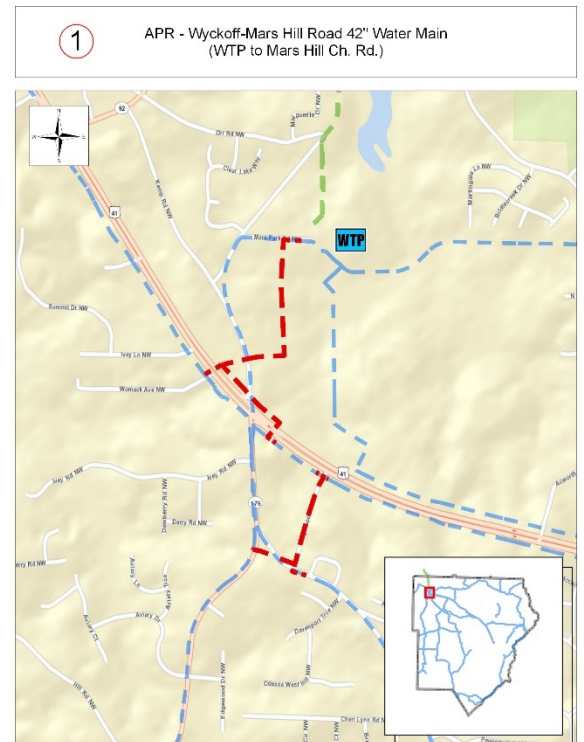


Equipment

## Capital Projects Completed in 2020

The Wyckoff 42" Finished Water Main Replacement was completed in June 2020 for a total of \$7.8 million. This project replaced 5,200 feet of 42" and 30" pre-stressed concrete cylinder pipe (installed in 1964) with new 42" zinc-coated ductile iron pipe. The project extended from the Wyckoff plant to Mars Hill Church Road and eliminated critical, vulnerable infrastructure that was once located in a main intersection of U.S. Highway 41 (shown below). Replacing this section of water main has improved reliability of the water supply to areas near this intersection.

The project was part of an ongoing program to replace aging infrastructure in our transmission system. It was identified as one of the highest priority projects and was the second project completed in the program, which began in 2018.





## Asset Renewal & Replacement Projects Completed in 2020

A total of 56 Asset Renewal and Replacement Projects were completed in 2020, for a total of \$10.2 million. Projects in this category range from smaller purchases like cameras and Smart Boards to vehicle replacements, water treatment plant equipment, and a small building renovation. Three of the projects completed in 2020 are highlighted below.

The Calvin F. Simmons laboratory expansion project totaled \$1.24 million and consolidated the biological and chemical laboratories into a single building. The chemical laboratory was previously located at the Quarles Water Treatment plant, approximately 25 minutes South of the main laboratory. This consolidation will allow for more efficient lab operations and more effective cross-training of staff. The expansion also includes additional training/meeting space.



The Wyckoff Settled Solids Equalization Basin improvements project totaled \$1.17 million and improved the flow of settled solids (sludge) leaving the water treatment plant. Solids removed from raw water during the treatment process flow to an equalization basin before being pumped to dewatering equipment, which produces dry sludge. This project removes excess water from the equalization basin and sends it back to the head of the plant to be recycled, instead of pumping it to the thickening process. This improvement resulted in less operating time of the dewatering presses, increased the efficiency of the dewatering process, and allows 100% of the water leftover from the treatment process to be recycled. The system controls are pictured above, and the equalization basin is shown in the picture to the right.



CCMWA's Transmission Division oversees a valve maintenance program to ensure that all valves in the transmission systems are regularly inspected and operational. A specialized valve maintenance truck is used to assist with opening and closing valves and removing water and debris from valve boxes. The equipment also collects data about the valves, such as the torque required to open and close a valve. This data can be used to determine if a valve's condition has changed since it was last operated and if the valve has deteriorated overtime. A new truck was purchased in 2020 for \$141,000 to replace a nine-year old truck that had reached the end of its useful life and was experiencing mechanical issues.



## 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 the construction of capital projects which are new additions to CCMWA's assets and 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 \$59,614,221 as of January 1, 2020, with \$11,910,585 classified as current liabilities (due in less than one year) and \$45,174,766 classified as long-term liabilities. Compensated absences payable, both current and long-term, contributed to \$2,251,523 of total liabilities. CCMWA estimates a debt ratio, calculated as total liabilities divided by total assets, of 7.8% at January 1, 2021.

No additional debt was issued in 2020 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 \$11.5 million in outstanding Series 2009 Bonds, leaving the Series 2015 Revenue bonds still outstanding. 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 – 2020 through 2025

### Series 2009 Revenue Bonds - Maturity 2021

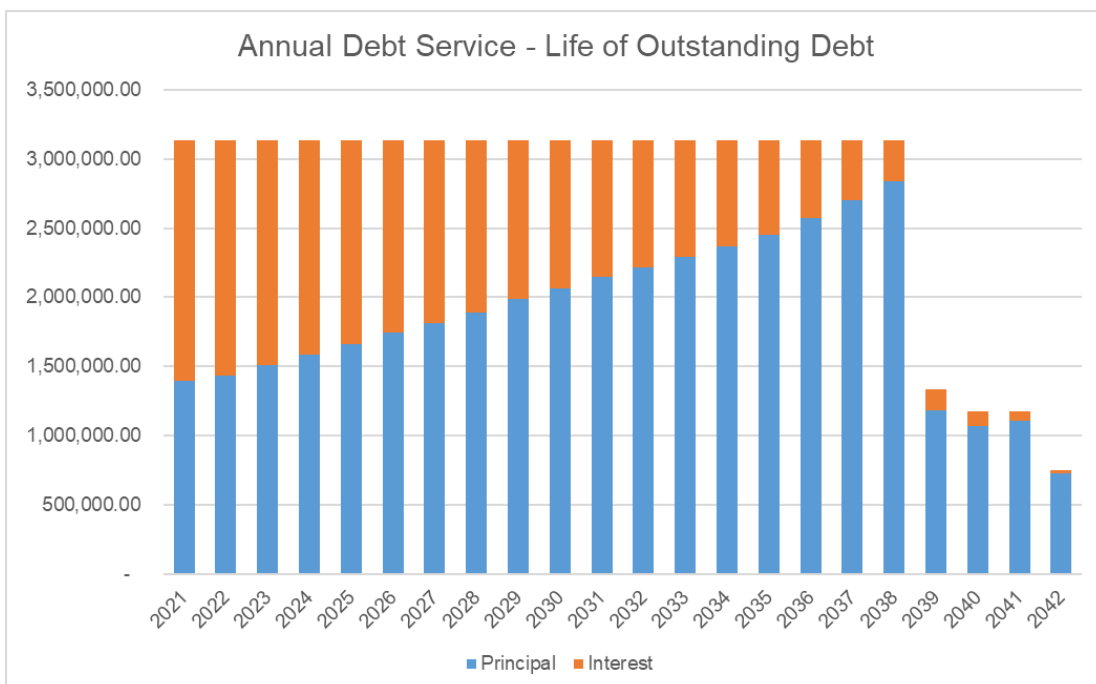
Fiscal Year Ending December 31,	Principal	Interest	Total
2020 (defeased)	-	-	-
2021 (defeased)	-	-	-
2022	-	-	-
2023	-	-	-
2024	-	-	-
2025	-	-	-

### Series 2015 Revenue Bonds - Maturity 2042

Fiscal Year Ending December 31,	Principal	Interest	Total
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
2025	1,665,000	1,471,625	3,136,625

### Total Long-Term Debts Payable

Fiscal Year Ending December 31,	Principal	Interest	Total
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
2025	1,665,000	1,471,625	3,136,625





## 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:

<b><u>Capital Asset Class</u></b>	<b><u>Threshold</u></b>	<b><u>Useful Life</u></b>
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.

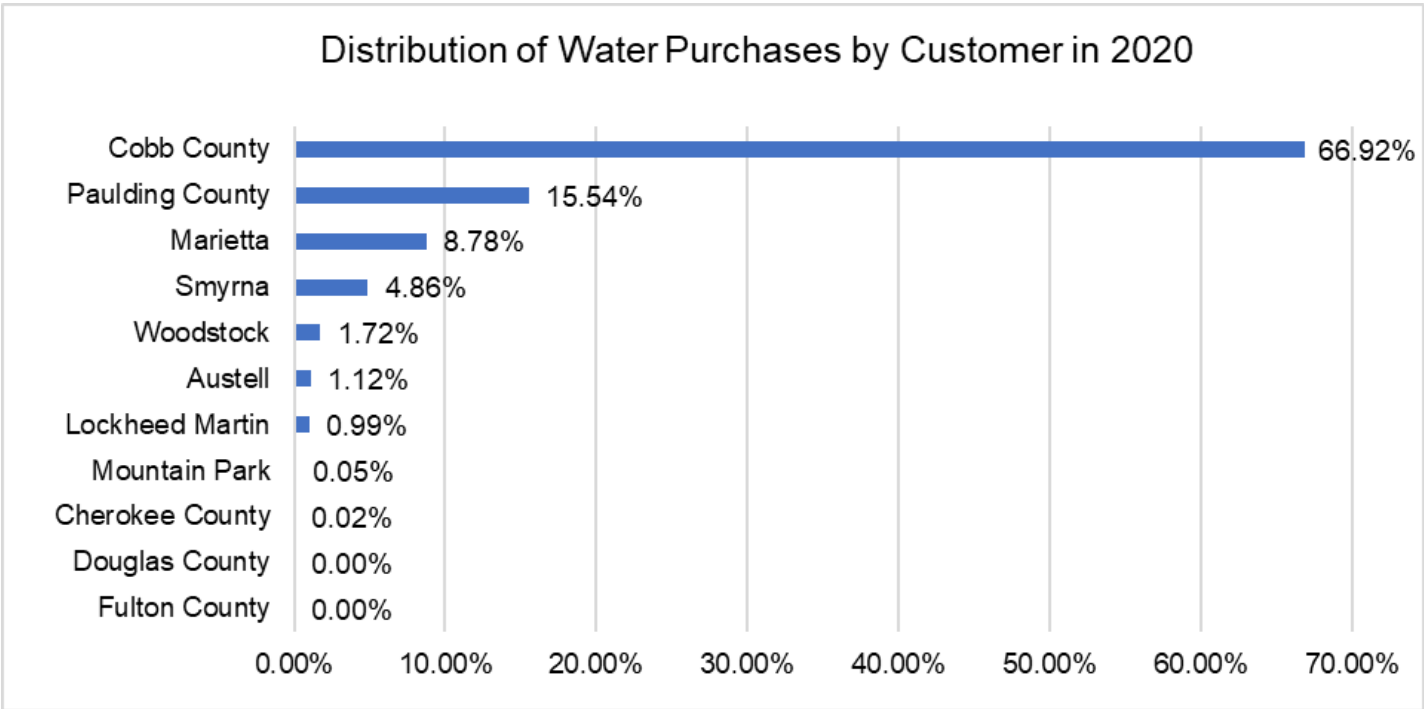
Demographic and economic measures of CCMWA's service area are presented to provide context for CCMWA's business environment. All demographic information is taken directly from the CCMWA's most recent Comprehensive Annual Financial Report and is reported on a fiscal year basis (as of December 31<sup>st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

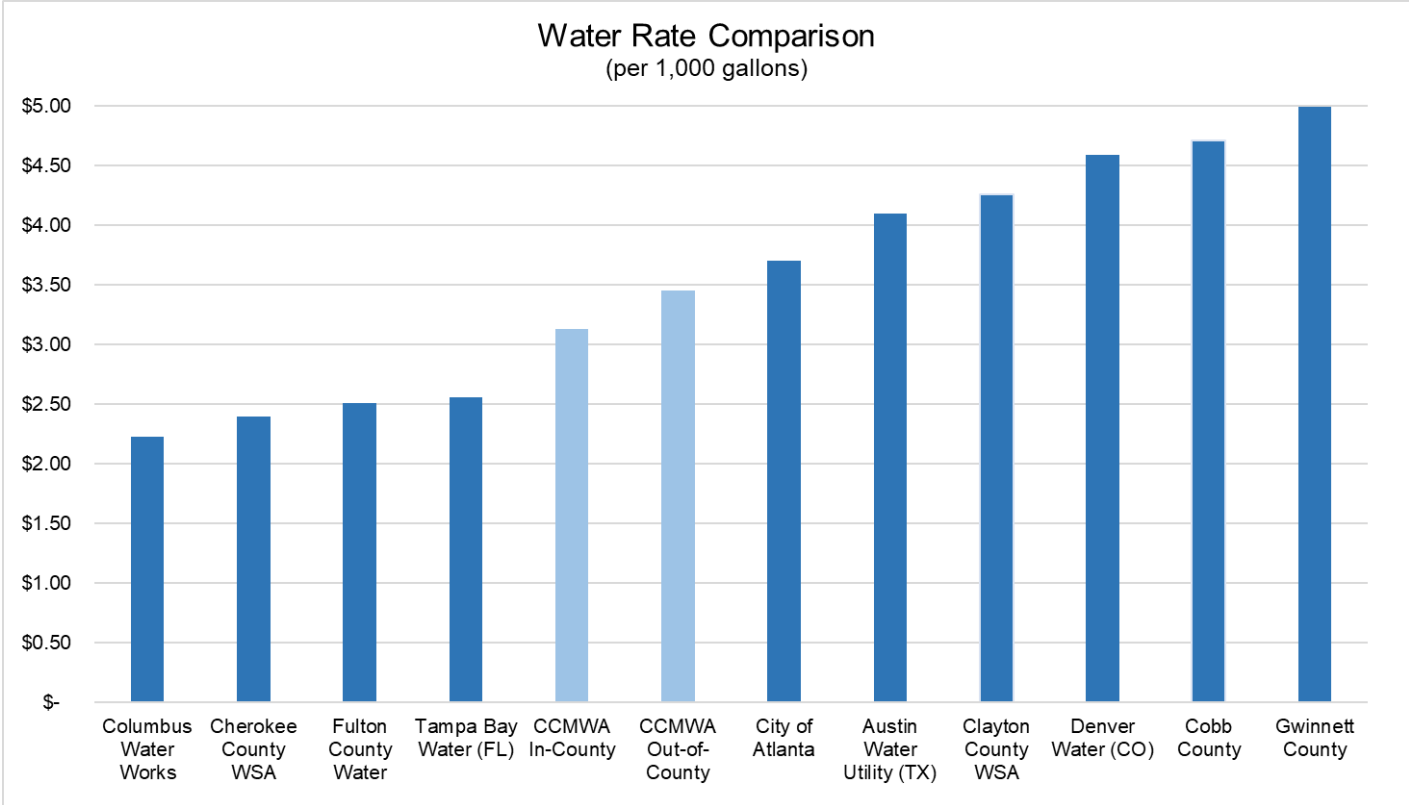
- Cherokee County Water and Sewer Authority (CCWSA)
- City of Austell
- City of Mountain Park
- City of Smyrna
- City of Woodstock
- Cobb County Water System
- Douglasville/Douglas County Water and Sewer Authority (DDCWSA)
- Lockheed Martin Aerospace and Defense Company
- Marietta Board of Lights and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



### Rate Comparison Information

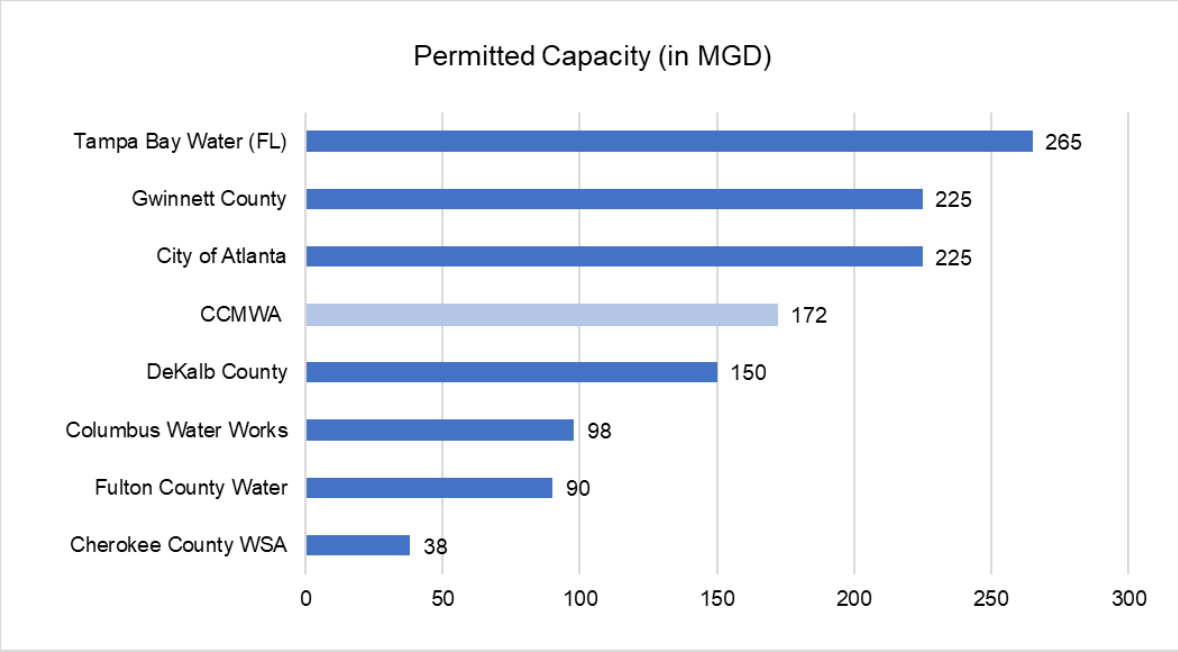
The following table represents select peer water purveyors of Cobb County-Marietta Water Authority in the Atlanta metropolitan area and similarly sized peer water purveyors outside of Georgia.



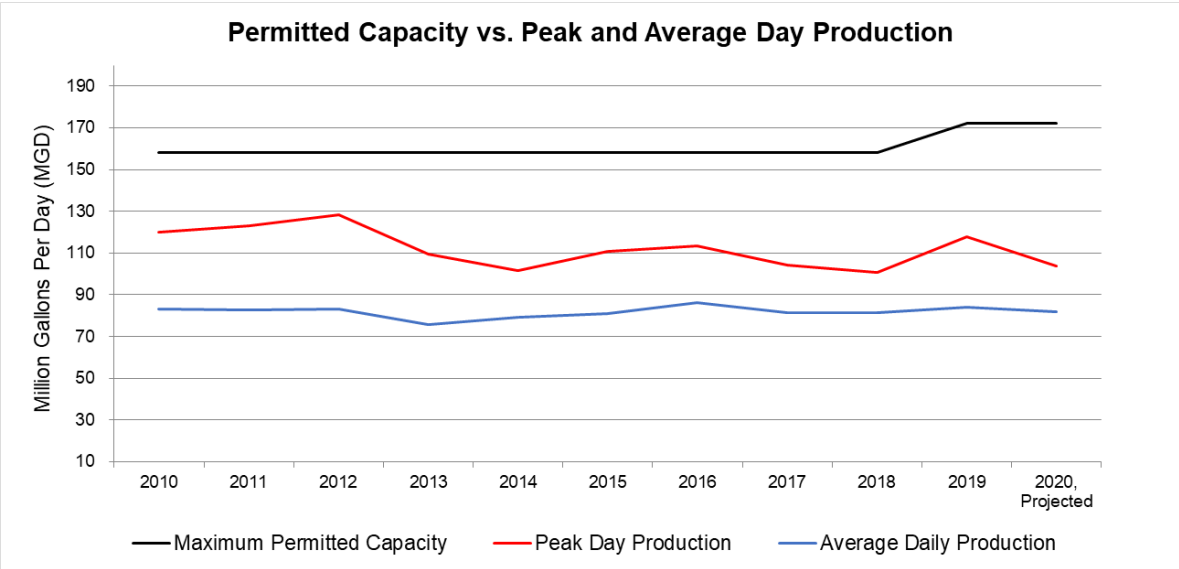


### Permitted Production Capacity Comparison Information

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

<b>Operational Cost per Million Gallons &amp; Thousand Gallons Produced</b>				
(Operating Expense / Million Gallons Produced) **Includes Depreciation				
<b>Fiscal Year</b>	<b>MG Produced</b>	<b>Operating Expense</b>	<b>\$/MG</b>	<b>\$/K-Gal</b>
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	30,950	48,609,734	1,570.59	1.57
2020, Projected	29,975	47,963,076	1,600.10	1.60

<b>Kilowatt Hours of Electricity Used per Million Gallons of Water</b>			
(KWH Used/ MG Produced)			
<b>Fiscal Year</b>	<b>MG Produced</b>	<b>Kilowatts Used</b>	<b>KW/MG</b>
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	30,950	75,198,508	2,430
2020, Projected	29,975	73,525,138	2,453

## Demographic Information

## COBB COUNTY-MARIETTA WATER AUTHORITY

DEMOGRAPHIC AND ECONOMIC STATISTICS  
LAST TEN YEARS*Unaudited*

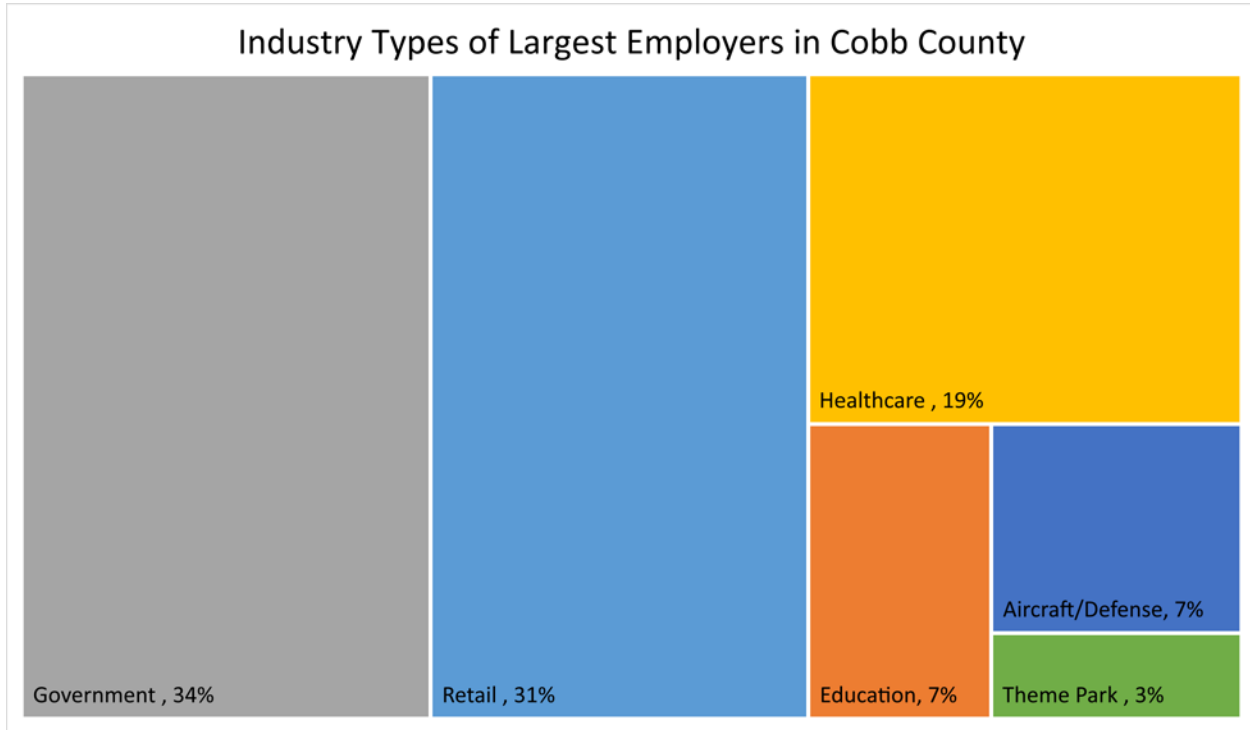
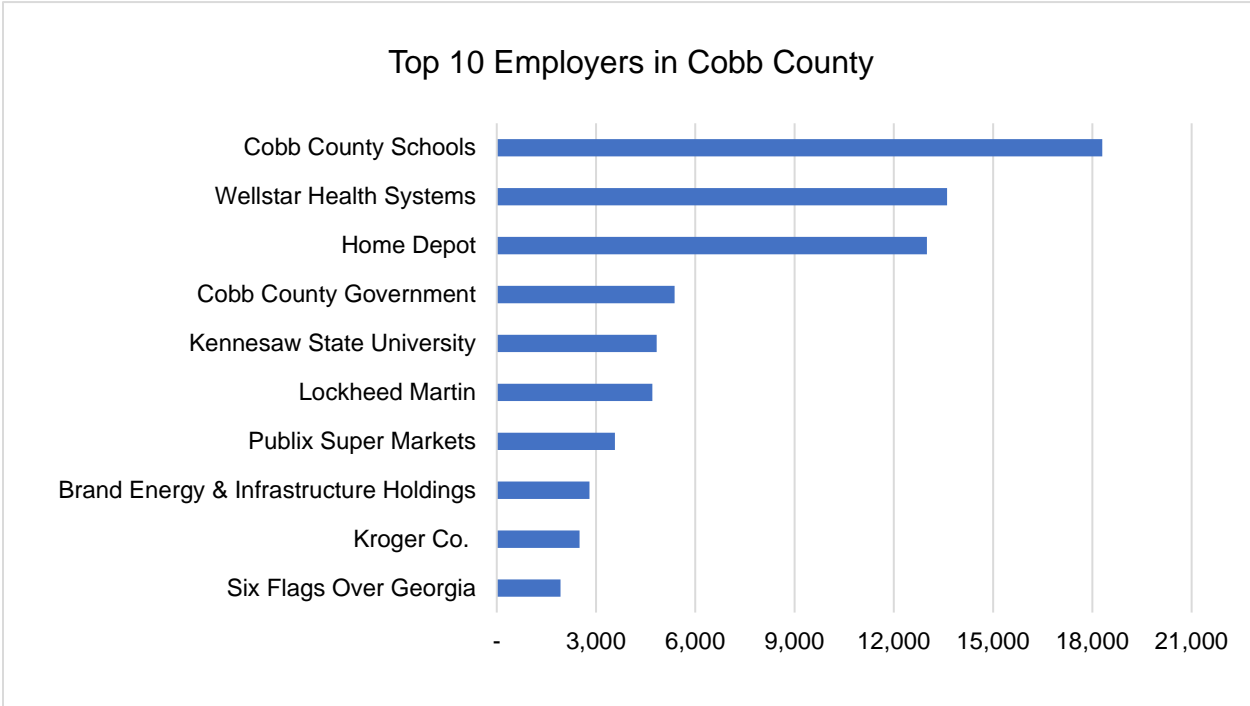
<b>Fiscal Year</b>	<b>Population (1)</b>	<b>Personal Income (1)</b>	<b>Per Capita Personal Income (1)</b>	<b>County Unemployment Rate (2)</b>
2010	689,750	\$ 30,144,950,000	\$ 43,704	9.50%
2011	697,550	30,776,120,000	44,120	8.40%
2012	707,170	31,338,650,000	44,316	7.30%
2013	716,950	32,029,550,000	44,675	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%
2019	774,300	40,221,270,000	51,945	3.20%

<b>City</b>	<b>Population</b>
Acworth	22,642
Austell	7,213
Kennesaw	34,172
Marietta	60,806
Powder Springs	15,375
Smyrna	56,706

**\*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



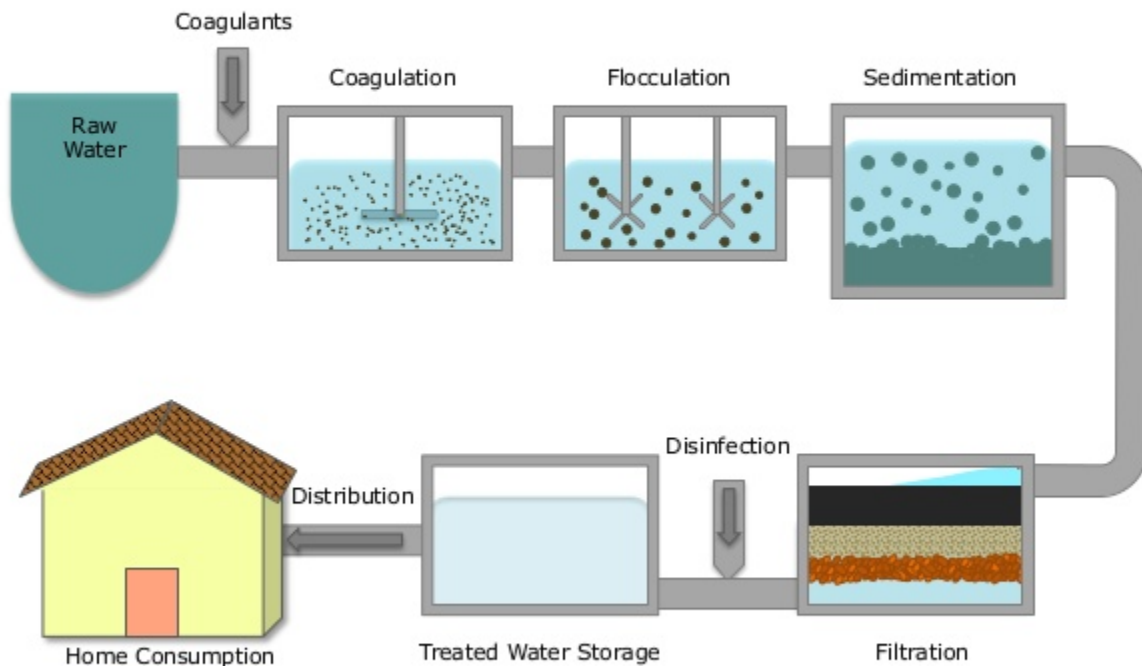
Source: Cobb County Office of Economic Development and Cobb County Chamber of Commerce

## 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.

## Water Treatment Process





## 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 untreated 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 storm water runoff, 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. 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.

Consumer Confidence Report

EPA Regulated Inorganic Substances or Contaminants							
Substance (Unit)	Date Tested	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Fluoride <sup>1</sup> (ppm)	2019	4	4	0.88	0.68 - 0.88	Erosion of natural deposits; water additive which promotes strong teeth	NO
Lead <sup>2</sup> (ppb)	2017	AL =15	0	2.1	n/a	Corrosion of household plumbing systems	NO
Copper <sup>3</sup> (ppm)	2017	AL =1.3	0	0.053	n/a	Corrosion of household plumbing systems	NO
Nitrate/Nitrite <sup>4</sup> (ppm)	2019	10	10	0.77	0.33 - 0.77	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	NO

**Notes:** <sup>1</sup> Fluoride is added to water to help in the prevention of dental cavities (caries) in children. <sup>2</sup> Of the 50 sites tested, none exceeded the action level. The next round of testing is due in 2020. <sup>3</sup> Of the 50 sites tested, 1 exceeded the action level. The next round of testing is due in 2020. <sup>4</sup> 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)	2019	80	n/a	49 Highest LRAA at site 505	14.1 - 71.8	By-products of drinking water disinfection	NO
HAA5 (Haloacetic Acids) (ppb)	2019	60	n/a	34 Highest LRAA at site 505 & 509	14.8 - 42	By-products of drinking water disinfection	NO
TOC (Total Organic Carbon) (ppm)	2019	TT	n/a	1.7	1.40 - 1.70	Decay of organic matter in the water withdrawn from sources such as lakes and streams	NO
Chlorite (ppm)	2019	1.0	0.8	0.48	0.33 - 0.48	By-products of drinking water disinfection	NO
Chlorine <sub>Free</sub> (ppm)	2019	MRDL= 4	MRDLG= 4	2.06	0.00 - 2.06	Drinking water disinfection	NO

Turbidity							
Substance (Unit)	Date Tested	MCL	MCLG	Detected Level	Range	Typical Sources	Violation
Turbidity <sup>1</sup>	2019	TT=1 NTU	0	0.14	n/a	Soil runoff	NO
		TT=percentage of samples <0.3 NTU		100%	n/a		

**Notes:** <sup>1</sup>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 more than 40 Total coliform samples per month.)							
Substance (Unit)	Date Tested Positive	MCL	MCLG	TT Level 1 Assessment Trigger	Level Detected	Likely Sources	Violation
Total Coliform	03/2019 04/2019 07/2019 08/2019 12/2019	TT	n/a	Exceeds 5.0% TC+ samples in a month	1.23% <sup>1</sup> 0.42% <sup>2</sup> 0.41% <sup>3</sup> 0.41% <sup>3</sup>	Naturally present in the environment	NO
E. coli	None	One Positive Sample*	0	n/a	0.0%	Human or animal fecal waste	NO

**Notes:** \* 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.  
<sup>1</sup> Three positive samples out of 244 samples tested during the month.  
<sup>2</sup> One positive sample out of 238 samples tested during the month.  
<sup>3</sup> One positive sample out of 243 samples tested during the month.

## Performance Indicators

<b>Return on Assets</b>			
(Net Income/Total Assets)			
<b>Fiscal Year</b>	<b>Net Income</b>	<b>Total Assets</b>	<b>Return on Assets</b>
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	51,626,927	745,801,332	6.92%
2020, Projected	51,193,658	797,375,324	6.42%
AWWA Benchmark (Median Quartile, 2012)			2.20%

<b>Debt Ratio</b>	
(Total Liabilities/Total Assets)	
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, Audited	7.6%
2020, Projected	7.8%
AWWA Industry Benchmark	34.0%

<b>Million Gallons per Day of Water Delivered per Full Time Equivalent</b>			
(Average MGD Delivered/Number of FTEs)			
<b>Fiscal Year</b>	<b>MGD</b>	<b>FTEs</b>	<b>MGD per FTE</b>
2014	78.71	114.5	0.69
2015	80.8	114.5	0.71
2016	86.3	116	0.74
2017	81.4	116	0.70
2018	84.3	116	0.73
2019	81.9	116	0.71
2020, Projected	76.5	116	0.66

## 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 organization 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

OCGA .....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