

**Arapahoe County Water and Wastewater Authority
(ACWWA)**

2021 Operating and Capital Improvement Budget

November 18, 2020

**Arapahoe County Water and Wastewater Authority
(ACWWA)**

2021 Operating and Capital Improvement Budget

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BUDGET MESSAGE



New RO Units for Water Production - JWPP

1. Budget Message

November 18, 2021

Board of Directors
Arapahoe County Water and Wastewater Authority

Your management team is pleased to present the Arapahoe County Water and Wastewater Authority (ACWWA) 2021 Proposed Budget. The purpose of this budget is to provide citizens, investors, and other interested parties with reliable financial information about ACWWA. This budget represents our best effort to predict revenues and expenditures for the year 2021.

ACWWA's budget is one of the most important documents prepared by ACWWA. Through the process of planning and preparing the budget, ACWWA evaluates and updates its strategic plans and goals for the coming. The process also provides direction for management and staff.

It is important to note that while the adoption of this budget focuses on identifying and estimating the spending of financial resources, it is also a policy-setting document. It makes determinations on the use of ACWWA's facilities, the use of staff time, and drives management decisions for 2021. As ACWWA's policy makers, you play a critical role in making decisions regarding ACWWA's future.

ACWWA's service area has reached approximately 78% of build-out, and still has a number of land parcels available for development. The service area experienced a substantial increase in development over the past four years; however, rising interest rates, tariffs on building materials, and general economic uncertainty may result in decreased development over the next several years. The budget for tap sales reflects this more conservative outlook.

The 2021 Budget is designed to meet the goals of ACWWA's mission and vision statements including the objective of providing the highest quality service to our customers at the lowest reasonable cost. This budget provides for planning and development of additional water resources, as well as the operation and maintenance of existing production, distribution, collections and treatment facilities to support the economic growth of ACWWA. This budget is organized and structured to meet external and internal managerial needs. The budget also incorporates the direction for ACWWA as established by the Board's priorities.

1.1 Board of Directors' Priorities

The Board of Directors has developed a series of Strategic Priorities and directives to assist staff in the development of this budget. These priorities and Areas of Focus are:

Areas of Focus for the next 5 years:

- **Addressing our complex and aging infrastructure** – ACWWA turned 30 in 2019 and all of its assets are aging. ACWWA already does considerable components of asset management, but comprehensively understanding the scope of that issue and developing strategies and programs to manage all vital aspects will be important.
- **Addressing ACWWA's and the industries aging workforce** – ACWWA is not alone. All water and wastewater utilities are dealing with this issue. ACWWA needs to find methods to ensure continuity when our employees retire, as well as find creative ways to bring new employees on board and up to speed quickly.
- **Customer service** – It is what we do every day, it is in our Mission Statement and always needs to be a priority for ACWWA. Our customers are the individuals we provide water and wastewater services to, including commercial businesses, industries, private residences and the development community.
- **Developing a positive, high performing culture** – We have great employees and want to foster an environment in which high performing individuals will thrive. This involves growing leaders from within, rewarding hard work and holding everyone accountable to our Values. This will put ACWWA in a competitive advantage for the talent pool, as well as support providing exceptional service to our customers.
- **Water Quality/Quantity** – ACWWA has made great strides in this area, seeing substantial improvement over the last 4 years. The ACWWA Flow Project, the JWPP, challenges with lead, corrosion and new regulations makes this an area that ACWWA will consistently focus.
- **Reliability/Redundancy** – ACWWA needs to be prepared for things to break. Assessing our vulnerability in our water and wastewater infrastructure and finding methods for mitigation will be key to ensure reliability of our services to our customers.
- **Data Management and Measurement** – Technology is changing fast. The access to and volume of data is increasing. Managing data and information will be key to a successful organization. Finding methods to track and analyze the data will give ACWWA better ability to plan and manage its services.
- **Embracing Technology** – New technology when well thought-out, evaluated and implemented can provide greater reliability and efficiency in our industry.

- **Capital Improvement Planning** – We want to understand what needs to be built and when is vital for short term and long-term goals. Capital Projects are generally the highest expenses in the organization. Understanding the drivers for all projects, proper planning and management will allow the greatest ability to use the necessary funds wisely.
- **Expense Management** – From budgets to policies, they all need a clarity on how they are administered and communicated to customers.

The 2021 budget is shaped by ACWWA's mission and reflects the Board's priorities. The operating budget was developed to ensure that enough funds are available to pay for anticipated costs. The non-operating budget includes only those projects that are necessary to meet the challenges of ensuring an adequate supply of water and the effective treatment of wastewater. The budget document reflects the progressive nature of ACWWA and promotes accountability, prudence, and fiscal conservatism.

ACWWA's Board and management strive to be proactive in anticipating future developments that will affect ACWWA's operating environment. Issues and trends that will impact ACWWA in the coming years include:

- Greater federal and state regulation of water and wastewater operations;
- Increased pressure on water supplies in Colorado and the West, resulting in the need to manage current water supplies and for greater regional cooperation;
- Capital costs required for additional treatment and delivery capacity for the ACWWA Flow project;
- Higher future costs because of increased regulation and more demand for water coupled with decreasing supplies;
- An aging workforce and record low state unemployment levels which is creating a shortage of skilled workers in the utilities sector as well as other sectors;
- Aging water and wastewater infrastructure that is being addressed with ACWWA's asset management program to optimize the life of the systems;
- Economic uncertainty due to tariffs, fluctuating interest rates, and global markets may cause a slowdown in development in ACWWA's service area, resulting in a decrease in funds available for capital projects.

As we move into 2021, we will continue with our commitment to provide the highest quality water and wastewater services for our customers while keeping rates as low as possible. Staff will focus on maintaining and developing internal processes to most efficiently manage ACWWA's finances and continue to be accountable to the Board of Directors and ACWWA's rate payers.

We would like to thank the Board of Directors for their leadership and foresight in adopting policies and priorities to guide the development of ACWWA's 2021 Budget. We would also like to extend our gratitude to the ACWWA employees, who through their hard work and dedication have enabled ACWWA to meet its goals and objectives for 2020. The preparation of this document would not have been possible without the support and input from all departments.

Respectfully submitted,


Steve Witter, P.E.

INTRODUCTION



ACWWA Administrative Building



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Arapahoe County Water & Wastewater Authority
Colorado**

For the Fiscal Year Beginning

January 1, 2020

Christopher P. Morrell

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented an award of Distinguished Presentation to Arapahoe County Water and Wastewater Authority, Colorado for its annual budget for the fiscal year beginning January 1, 2020.

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

The award is valid for a period of one year only. We believe that our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

2. Summary of Operations

Form of Government	Authority
Government Code Section	Colorado Revised Statutes §29-1-204.2
Date of Organization	November 1989
Fiscal Year End	December 31

Number of FTEs authorized	40
Number of Accounts	3,955
Average census	31,000

Lone Tree Creek Water Reuse Facility	
Average Daily Wastewater Flow	2.5 million gallons
Total Capacity	3.6 million gallons
ACWWA's Capacity	2.5 million gallons
Inverness' Capacity	1.1 million gallons

Sewer Collection Pipeline (in miles)	100
Water Pipeline (in miles)	223
Number of Water Storage Tanks	3
Number of Fire Hydrants	2,000
Number of Valves	8,193
Number of Meters	5,049
Number of Water Supply Wells	26
Number of Booster Stations	3
Number of Lift Stations	3
Number of Manholes	3,164
Number of Interceptors	7
Number of Water Tap Equivalents	9,721

3. Description and History

3.1 Description

ACWWA represents a cooperative effort among public entities to provide water and wastewater service. ACWWA is a political subdivision formed pursuant to an intergovernmental agreement (IGA) between Arapahoe County and the Arapahoe Water and Sanitation District (AWSD or the District). ACWWA was formed in 1988 for the purpose of developing water resources, systems and facilities, and wastewater treatment and disposal systems and facilities in whole or in part for the benefit of the customers, county inhabitants, and others.

3.2 History

Effective January 1, 1989, the IGA granted ACWWA all responsibility for and control over AWSD's operating system, related operating assets, tap fees, contributions, revenues and expenses. The agreement provided for a lease of the District's property, plant and equipment. The lease was set to expire on either December 1, 2010, or upon the dissolution of the District or ACWWA, whichever came first. Pursuant to an IGA dated July 7, 1995, the District and ACWWA entered into a plan to dissolve the District. The voters of the District approved the plan and the Arapahoe County District Court signed the Order of Dissolution March 4, 2000, officially dissolving the District. All property, assets and water rights were turned over to ACWWA and any prior agreements between the two entities are subordinate to the July 7, 1995 Agreement.

On February 6, 2002, ACWWA entered into an IGA with the Arapahoe County Water and Wastewater Public Improvement District ("the PID"). The PID was organized in 2001, pursuant to the provisions of Title 30, Article 20, Part 5, and Colorado Revised Statutes (CRS) for the purpose of constructing certain public improvements to serve customers both in and out of its jurisdiction boundaries. The IGA was amended and restated, in part, to have the PID replace the District as a party to the IGA. The PID retains ACWWA as an independent contractor to serve as its management agency. In consideration for ACWWA's commitment to provide management services, the PID agreed to issue general obligation bonds and certify a mill levy on property within the PID at a level sufficient to make the annual debt service payments as identified in the PID's annual capital plan.

ACWWA's core mission is to provide for water and wastewater service within its service area. ACWWA complies with several regulatory programs designed to protect the region's water resources, including the Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) which are examples of forces that will continue to challenge the municipal water and wastewater industry in the near future. Other regulatory compliance requirements, increasing customer awareness, aging infrastructure, and a growing scarcity of high-quality water sources will require greater creativity and innovation.

4. Organizational Structure

4.1 Authority Powers

ACWWA is a political subdivision and a public corporation of the State of Colorado, separate from the Members of the Establishing Contract. The rights, powers, privileges, authorities, functions, and duties of ACWWA are established by the laws of the State of Colorado, particularly C.R.S. §29-1-204.2, which provides ACWWA the power to enter into contracts; to sue and be sued; to hire employees and agents; to incur debts, liabilities, or obligations; to issue revenue obligations or refund outstanding indebtedness; to acquire, hold, lease, or dispose of real and personal property utilized only for the purposes of water treatment, distribution, and wastewater disposal; to develop water resources, systems, or facilities or drainage facilities for the benefit of the inhabitants of the Members or others; to condemn non-public utility property for use as rights-of-way; and to fix, maintain, and revise fees, rates, and charges for functions, services, or facilities provided by ACWWA. ACWWA does not have the power to tax.

4.2 Governing Board

There are seven authorized positions for the Board of Directors of ACWWA. These board positions are appointed at the discretion of the Arapahoe County Commissioners. Two of the five County Commissioners currently serve on the ACWWA's Board of Directors.

ACWWA's Board sets policy and direction for ACWWA. These seven individuals serve for a term of three years and appointments are made as vacancies occur. The Board elects its own officers, including a President, Vice-president, Secretary, and Treasurer.

ACWWA's Board of Directors and any reported conflicts of interest are as follows:

- **Doyle Tinkey's** conflict form has been filed; he owns a home in the ACWWA service area. Mr. Tinkey is retired from CH2M Hill.
- **Geri G. Santos-Rach's** conflict form has been filed; she has no conflicts to report and notes that she has contributed to the campaigns of Arapahoe County Commissioners who have served or are currently serving on the ACWWA Board.
- **Nancy Sharpe's** conflict form has been filed; she is a member of the Arapahoe County Board of County Commissioners, the Centennial Airport Authority Board, an alternative on the SEMSWA Board, and the Urban Drainage and Flood Control Authority Board.
- **Jeff Baker's** conflict form has been filed; he is a member of the Arapahoe County Board of County Commissioners, serves on the SEMSWA Board, and lives in a neighboring water district that partners with ACWWA on projects.
- **Brad Cromer's** conflict form has been filed; he has no conflicts to report and notes that he has previously made campaign contributions to Arapahoe County Commissioner Nancy Sharpe.
- **Tom Wood's** conflict form has been filed; he purchased some of ACWWA's 2017 bonds.

4.3 ACWWA's Management Team and Staff

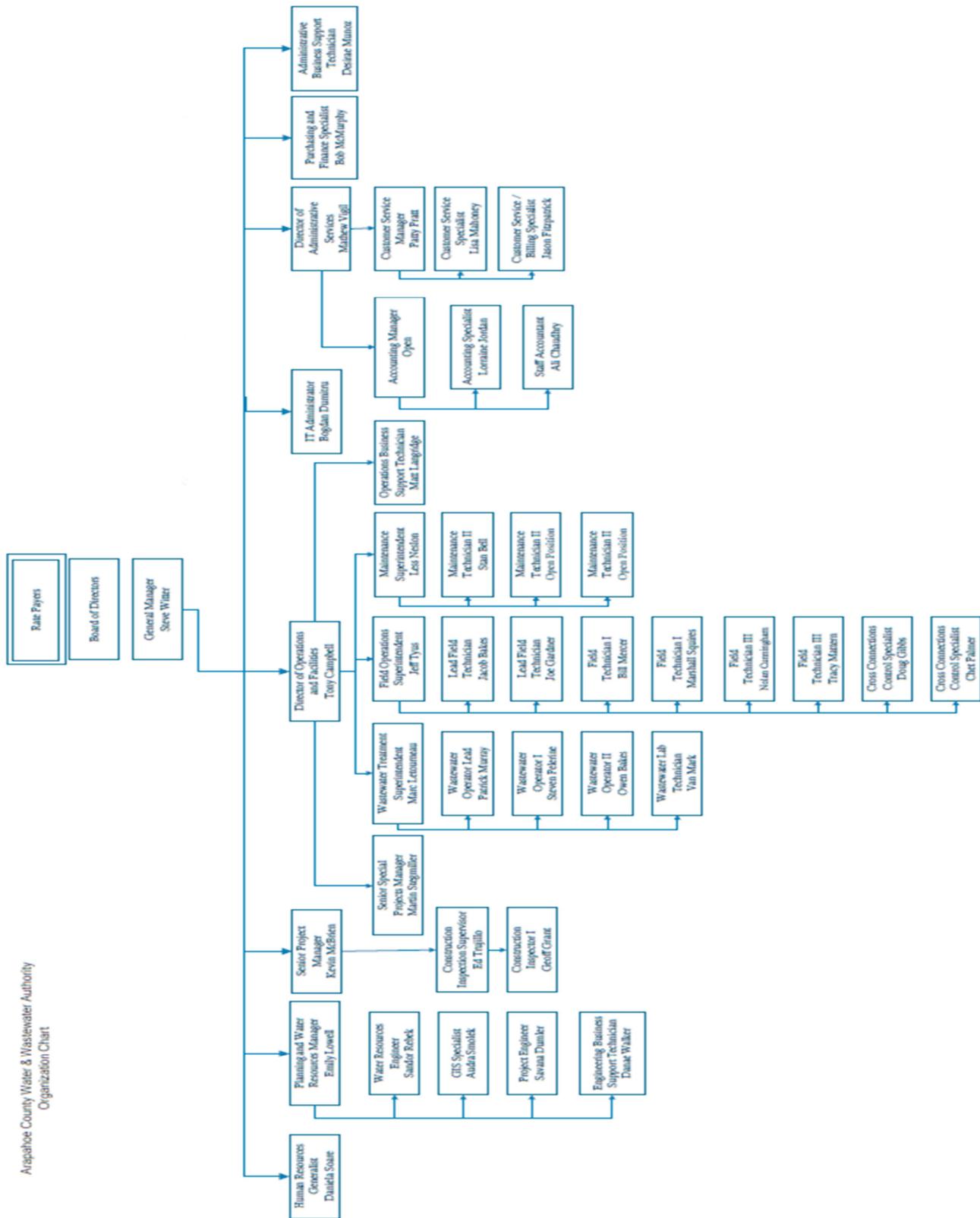
Steven F. Witter, PE, is ACWWA's General Manager. The General Manager is the chief executive officer and administrative head of ACWWA and is responsible for carrying out policies set by the Governing Board and leading ACWWA toward the successful accomplishment of its mission. Mathew Vigil, CPA, is ACWWA's Outsourced Finance Manager, Emily Lowell, PE, serves as ACWWA's Engineering Manager, and Tony Campbell is ACWWA's Director of Operations. This group comprises ACWWA's Management Team.

ACWWA currently has 37 budgeted positions, with three additional positions budgeted in 2021.



ACWWA 4 MGAL Storage Tank.

4.4 Organization Chart



4.5 Our Mission

To provide sustainable water and wastewater services by optimizing our resources to ensure quality and value while protecting the environment.

4.6 Our Vision

To be a leading water/wastewater utility by providing exceptional service for current customers and future generations.

4.7 Our Values

- **Professionalism:** It's how we conduct our business! We value treating our customers with respect and being prepared to effectively address customer issues in the office and in the field. Our interactions, our appearance and our actions all should be examples of our dedication to our mission and vision.
- **Reliability:** We understand our customers rely on us to provide them with water and wastewater services and efficient customer service. ACWWA staff strives, through proper planning and execution, to provide these services to our customers day in and day out.
- **Integrity:** ACWWA's expectation for its customers and employees is to always behave in an upright and honest manner. ACWWA strives to develop and maintain trust with its customers through honest and transparent actions
- **Accountability:** ACWWA conducts a vital service to our community and strives to execute its mission and vision on a daily basis. ACWWA is accountable to its customers and to the State of Colorado to meet all necessary regulations. ACWWA strives to be transparent in what it does, through open meetings, an informative website, newsletters and customer service.
- **Efficiency:** Through proper planning and execution of ACWWA's mission, vision and values, ACWWA strives to perform its responsibilities in the most efficient and beneficial manner to our customers. ACWWA is focused on utilizing our resources optimally to deliver value to our customers.



Elkhorn Ranch Arapahoe Well 2

5. ACWWA's Service Area

5.1 Demographic and Economic Activity Information

Included in this section is historical and demographic and economic information relevant to the Denver metropolitan area, Arapahoe County and ACWWA's budget.

5.2 Population

The following table provides a history of the populations of Arapahoe County, the Denver-Aurora Core Based Statistical Area (the "Denver-Aurora CBSA") and the State. The Denver-Aurora CBSA is comprised of six metropolitan counties and four bordering counties: Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, and Park. Between 2010 and 2017, the population of Arapahoe County increased 11.4%, and the populations of the Denver-Aurora CBSA and the State increased 12.1% and 10.1%, respectively.

Year	Denver-					
	Arapahoe County	Percent Change	Aurora CBSA	Percent Change	Colorado	Percent Change
1990	391,511	33.3	1,650,486	13.8	3,294,394	14.0
2000 ⁽¹⁾	487,967	24.6	2,196,957	33.1	4,301,261	30.6
2010	574,819	17.2	2,556,278	15.8	5,050,332	16.9
2011	585,940	1.9	2,604,570	1.9	5,124,143	1.5

2012	596,499	1.8%	2,651,779	1.8%	5,195,972	1.4%
2013	608,262	2.0	2,702,127	2.0	5,272,662	1.5
2014	618,832	1.7	2,755,692	1.7	5,352,288	1.5
2015	630,599	1.9	2,814,601	1.9	5,453,996	1.9
2016	638,513	1.3	2,858,657	1.3	5,542,211	1.6
2017	644,088	0.9	2,893,883	0.9	5,615,732	1.3
2018	651,710	1.2	2,934,712	1.2	5,696,897	1.4
2019	656,822	0.8	2,970,802	0.8	5,763,976	1.2

(1) Population of the Denver-Aurora CBSA adjusted by Colorado State Demography Office to reflect the 2001 creation of the City and County of Broomfield.

Sources: United States Department of Commerce, Bureau of the Census (1970 to 2010) and Colorado State Demography Office (2011 to 2017 estimates, which are subject to periodic revision).

5.3 Income

The following table sets forth the annual per capita personal income levels for the residents of

Per Capita Personal Income

Denver-Aurora					
Year ⁽¹⁾	Arapahoe County	CBSA	Colorado	United States	
2013	\$ 49,692	\$ 52,426	\$ 47,298	\$ 44,851	
2014	53,236	56,299	50,700	47,058	
2015	54,358	57,525	452,133	48,978	
2016	55,001	57,595	52,262	49,870	
2017	56,789	61,679	55,335	51,885	
2018	60,180	65,424	58,456	54,446	

(1) Figures for Arapahoe County and the Denver-Aurora CBSA updated March 6, 2019. State and national figures updated September 24, 2019. All figures are subject to periodic revisions.

Source: United States Department of Commerce, Bureau of Economic Analysis.

Arapahoe County, the Denver-Aurora CBSA, the State and the nation.

5.4 Employment

The following table sets forth the number of individuals employed within selected Arapahoe County industries which are covered by unemployment insurance. In 2018, the largest employment sector in Arapahoe County was health care and social assistance (comprising approximately 13.1% of the county's work force), followed, in order, by retail trade, professional and technical services, finance and insurance, and administrative and waste services. For the twelve-month period ended December 31, 2018, total average employment in the County increased 1.1% as compared to the same period ending December 31, 2017, and total average weekly wages increased 3.2%.

Average Number of Employees within Selected Industries – Arapahoe County

Industry	2015	2016	2017	2018	2019
Accommodation and Food Services	25,461	26,161	26,942	26,939	26,951
Administrative and Waste Services	28,314	26,640	27,411	27,622	27,921
Agriculture, Forestry, Fishing, Hunting	94	94	119	124	185
Arts, Entertainment and Recreation	5,347	5,470	6,106	6,331	5,171
Construction	19,107	20,244	21,769	22,805	22,870
Educational Services	22,760	22,930	22,632	22,399	3,640
Finance and Insurance	27,531	28,516	29,159	28,891	25,624
Government	13,194	13,051	13,079	13,373	37,293
Health Care and Social Assistance	41,116	43,035	42,754	43,572	44,248
Information	17,710	17,675	18,136	18,203	18,849
Management of Companies/Enterprises	8,130	7,280	8,661	8,743	9,059
Manufacturing	8,041	8,148	7,891	8,209	8,415
Mining	925	714	675	683	625
Non-classifiable	22	28	13	30	30
Other Services	8,610	8,959	9,316	9,528	9,835
Professional and Technical Services	30,364	31,529	31,878	33,178	34,607
Real Estate, Rental and Leasing	6,234	6,312	6,381	6,681	6,598
Retail Trade	34,414	34,614	34,774	33,916	33,381
Transportation and Warehousing	4,796	5,069	5,138	5,554	4,282
Utilities	249	260	256	267	202
Wholesale Trade	<u>14,180</u>	<u>14,836</u>	<u>15,032</u>	<u>14,741</u>	<u>14,986</u>
Total All Industries⁽¹⁾	<u>316,597</u>	<u>321,566</u>	<u>328,120</u>	<u>331,789</u>	<u>334,772</u>

(1) Figures may not equal totals when added due to the rounding of averages or the inclusion in the total figure of employees that were not disclosed in individual classifications.

Source: State of Colorado, Department of Labor and Employment, Labor Market Information, Quarterly Census of Employment and Wages (QCEW).

The following table presents information on employment within Arapahoe County, the Denver-Aurora CBSA, the State and the nation, for the period indicated. The annual unemployment figures indicate average rates for the entire year and do not reflect monthly or seasonal trends.

Year	Arapahoe County ⁽¹⁾		Denver-Aurora CBSA ⁽¹⁾		Colorado ⁽¹⁾		United States
	Labor Force	Percent Unemployed	Labor Force	Percent Unemployed	Labor Force	Percent Unemployed	Percent Unemployed
2014	331,367	4.9%	1,487,827	4.8%	2,802,528	5.0%	6.2%
2015	334,731	3.7	1,507,539	3.7	2,828,876	3.9	5.3
2016	340,924	3.1	1,543,166	3.0	2,896,771	3.2	4.9
2017	350,862	2.7	1,592,620	2.6	2,992,412	2.7	4.4
2018	362,692	3.2	1,646,342	3.2	3,096,358	3.3	3.9
2019	371,171	2.3	1,688,220	2.3	3,174,504	2.5	3.7
<u>Month of August</u>							
2020	370,791	7.5%	1,678,804	7.0%	3,087,775	6.7%	6.9%

(1) Figures for Arapahoe County, the Denver-Aurora CBSA and the State are not seasonally adjusted.

Source: State of Colorado, Department of Labor and Employment, Labor Market Information and United States Department of Labor, Bureau of Labor Statistics.

5.5 Major Employers

The following table provides a brief description of the largest private employers located within Arapahoe County. No independent investigation of the stability or financial condition of the employers listed hereafter has been conducted and, therefore, no representation can be made that such employers will continue to maintain their status as major employers in the area.

Top Ten Private Employers in Arapahoe County

Name of Employer	Product or Service	Number of Local Employees ⁽¹⁾
Comcast	Telecommunications	5,230
HealthONE ⁽²⁾	Healthcare	4,010
Charter Communications	Telecommunications	3,500
Centura Health ⁽³⁾	Healthcare	2,810
Empower Retirement	Insurance/Retirement Saving Services	2,660
CenturyLink	Telecommunications	2,560
Raytheon Company	Aerospace Systems and Software	2,500
United Healthcare	Healthcare	2,170
Arrow Electronics	Electronic Component Wholesaler	2,170
Kaiser Permanente	Insurance	2,090

(1) Figures revised June 2020.

(2) HealthONE includes Medical Center of Aurora, Spalding Rehabilitation Center and Swedish Medical Center.

(3) Centura Health includes Centura Health Corporate Headquarters and Littleton Adventist Hospital.

Source: Development Research Partners as posted by Metro Denver Economic Development Corporation.

5.6 Building Activity

The following table provides a history of building permits issued for new construction in unincorporated Arapahoe County for the years indicated.

Building Permits Issued in Unincorporated Arapahoe County

Year	Single Family		Multi-Family ⁽¹⁾		Commercial/Industrial ⁽²⁾	
	Permits	Value	Permits	Value	Permits	Value
2014	265	53,359,420	15	3,498,000	215	71,029,000
2015	346	67,039,979	611	41,700,000	190	66,935,543
2016	265	57,248,257	8	1,615,896	257	67,776,367
2017	255	56,173,719	116	5,345,000	423	79,272,437
2018	182	76,151,030	22	5,250,000	98	146,087,418
2019	454	124,901,867	0	0	43	79,574,866
2020 ⁽³⁾	193	60,407,345	1	4,340	58	68,318,112

(1) Includes apartments, condominiums and townhomes.

(2) Includes commercial remodel, addition, new structure or tenant finish.

(3) Figures are for January 1 through September 30, 2020.

Source: Arapahoe County Public Works and Development Department, Building Division.

5.7 Foreclosure Activity

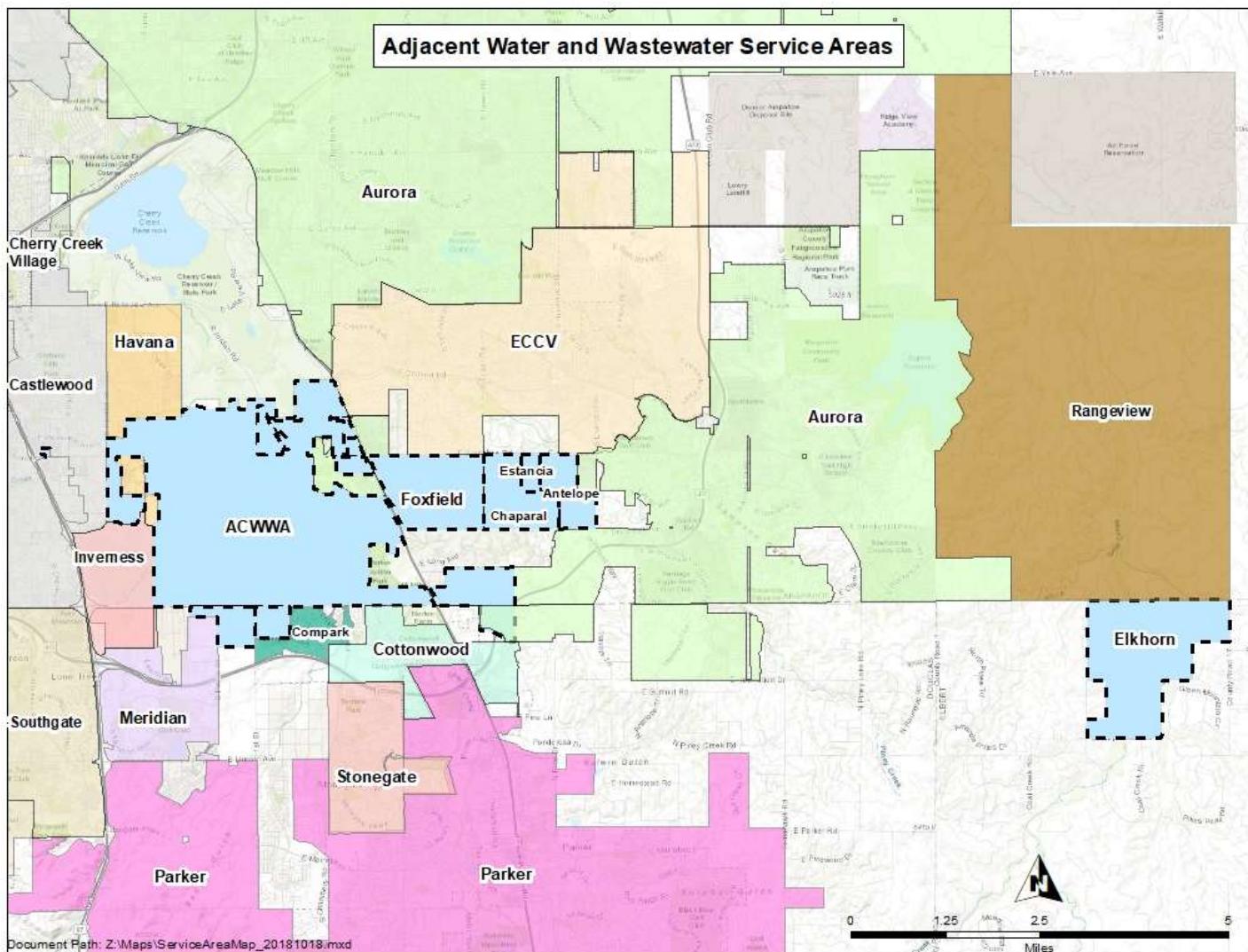
The following table presents historical information on foreclosure filings. Such information represents the number of foreclosures filed, but does not take into account the number of foreclosures which were filed and subsequently redeemed or withdrawn.

History of Foreclosures – Arapahoe County

Year	Number of Foreclosures Filed	Percent Change
2014	1,314	--
2015	858	(34.7)
2016	731	(14.8)
2017	706	(3.4)
2018	638	(9.6)
2019	638	0.0
2020 ⁽¹⁾	173	--

(1) Figures are for January 1 through July 31, 2020.

Sources: Colorado Division of Housing (2013-2019 figures) and the Arapahoe County Office of the Public



Trustee (2020 figure).

5.8 Service Area Map

6. Water Supply

At full build-out of the current service area, ACWWA estimates that demand will be approximately 11,000 acre-feet per year. In 2009, ACWWA began developing the ACWWA Flow Project, and has purchased water rights with an estimated average yield of 4,400 acre-feet. ACWWA has a diversified water rights/supply portfolio that includes non-tributary groundwater from the Denver Basin Aquifer, senior water rights on Cherry Creek and tributary surface water rights in the South

Platte Basin. ACWWA also utilizes augmentation plans to allow ACWWA the ability to maximize the use of its water supplies.

ACWWA further optimizes its water supply by operating a non-potable irrigation system and a reuse irrigation system. The non-potable irrigation system will include the use of Chambers Reservoir, a 1,400-acre-foot reservoir located at the southwest corner of Chambers Road and E-470. Reservoir construction continues in 2020 and 2021.

6.1 The ACWWA Flow Project

In the early 2000's, ACWWA's leadership recognized that additional water supply would be needed for ACWWA's future. The new water supply would address the increased water demand from growth, but also provide for current customers who were being served in part by non-tributary groundwater wells. Due to the heavy use of non-tributary groundwater wells in the Front Range, the production of these wells is anticipated to drop over time and a replacement water source would become necessary.

In 2009, after evaluating multiple options, the ACWWA Board approved a project to develop renewable water supplies. The project, named the "ACWWA Flow Project," includes the purchase and adjudication of 4,400 acre-feet of average yield consumptive use surface water rights from the South Platte Basin. It also includes the necessary infrastructure to store, treat and deliver that water to the ACWWA service area.

ACWWA used a portion of the 2009 Series Bonds net proceeds to acquire the ACWWA Flow water rights. Infrastructure for treatment, storage, and delivery of the new water rights must be constructed. Several proposed facilities will require environmental and other permits which have not yet been issued; ACWWA cannot guarantee that such permits will be issued.

The ACWWA Flow water rights are being adjudicated in the District Court in and for Water Division No.1 in Greeley, Colorado (Water Court). These water rights are expected to provide water supply for over 17,000 tap equivalents and will be enhanced by ACWWA's ability to reuse its water supply. ACWWA expects this water to provide a secure water supply to meet its anticipated future demands. However, unlike non-tributary groundwater, surface water rights are impacted by variable hydrologic conditions. It is anticipated that ACWWA's portfolio of non-tributary groundwater and Cherry Creek water rights will provide water in drought years to supplement surface water rights from the ACWWA Flow Project.

In order to be allowed permanent use for a municipal water supply, the water rights must be successfully adjudicated in Water Court. ACWWA began the adjudication of the ACWWA Flow Project water rights in 2009, and that process continues with nearly 50% of the water rights adjudicated and many more in process. ACWWA has also successfully adjudicated an augmentation plan, in addition to the water rights. The ACWWA Flow Project is currently delivering about 1,500 acre-feet of water annually, or about one-third of ACWWA's current potable water demand and is providing a more diversified water supply as well as improved water quality to ACWWA customers. ACWWA began delivering ACWWA Flow water to its service area in 2013.

In 2020, ACWWA will continue to develop this project and has budgeted to acquire capacity in a storage reservoir in the South Platte Basin to increase the effective yield of the water from the Project. In 2017, ACWWA invested in a second deep injection well constructed at the East Cherry Creek Valley Water and Sanitation District (ECCV) Water Treatment Plant and is a participant in the expansion of the Northern Water Treatment Plant. ACWWA owns capacity in this plant to treat its ACWWA Flow Project water supply.

7. Accomplishments

ACWWA like all other organizations have had to address the impacts of COVID-19 on their operations. ACWWA as an essential service was required to stay open and functional throughout and continues to do that today. ACWWA enacted many new processes and protocols with the intent to reduce the exposure risks as much as possible to our employees and our customers. The pandemic is not over yet and ACWWA will continue to be vigilant if these efforts.

2020 has been a productive year for ACWWA. Key accomplishments include:

Water Quality Improvements:

- Placed in service a third well in the Elkhorn subdivision, adding 100gpm of water supply to the residents;
- Completed expansion of the North and South Booster Pump Stations and construction underway for expansion of the Northern Water Treatment Plants to provide ACWWA with 5.25MGD of potable water supply from the ACWWA Flow project;
- Continued work on the reconversion of the JWPP to a blended reverse-osmosis/microfiltration plant, with a new Biological Treatment System (BTS) for treatment of brine concentrate.
- Conducted over 200 ground water samples for an EPA water study;
- Increased lead and copper sampling for CDPHE by 300%; and
- Cleaned all three storage tanks.

Disaster Recovery/Emergency Planning/Safety:

- Updated and expanded ACWWA's Emergency Response Planning Program.
- Continuing to conduct vulnerability assessments on critical infrastructure
- ACWWA staff started tabletop exercises to prepare for future emergency situations. These will continue to be done quarterly.

- There have been no lost time accidents in 2020, for a sixth consecutive year.

Improving Customer Service/Relations

- ACWWA Worked in conjunction with various Executive Orders from the Governor's office to suspend all late payment penalties as well as waive all disconnect/reconnect fees. Also made available Installment Plans for customers affected by COVID-19.
- Provided regular updates to our customers regarding any impact of COVID-19 on ACWWA customers ability to contact and communicate with ACWWA staff. ACWWA was able to continue 100% operations through the pandemic.

Employee Certifications

- ACWWA employees achieved 17 new and renewing certifications in its field operations, plant operations and maintenance departments in 2020.

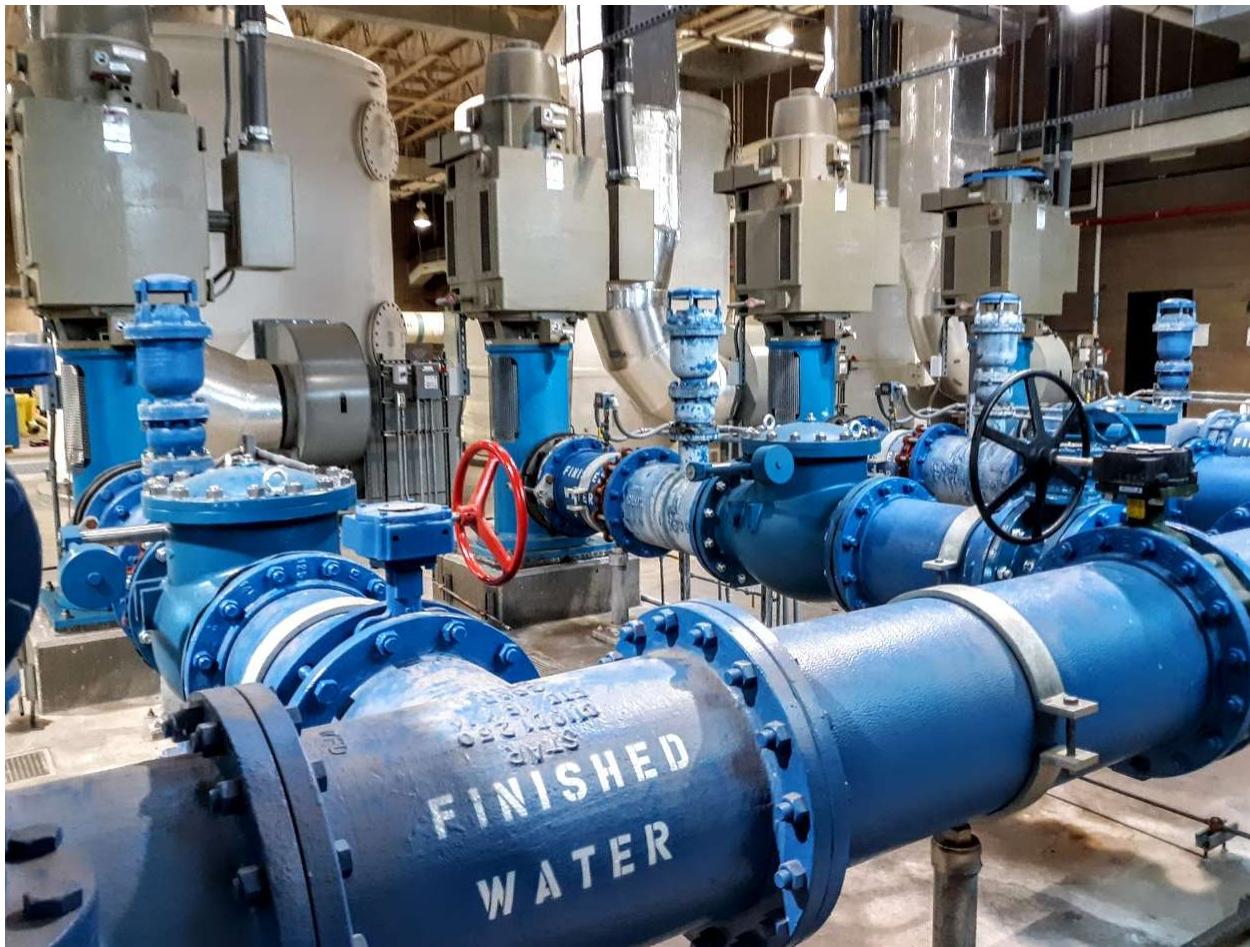
Projects/Efforts

- ACWWA successfully adjudicated and decreed its Western Mutual Ditch Co. shares, adding 310 acre-feet to its decreed water rights. ACWWA has now adjudicated approximately 55% of the ACWWA Flow water;
- Study of alternatives for converting ACWWA's primary potable water treatment to chloramines or maintaining on free chlorine;
- Update of ACWWA's water, wastewater, non-potable, and Reg 84 system master plans which will help identify and plan for future capital improvement projects;
- ACWWA has completed the renovation of the Chambers Reservoir Project – consisting of the initial Phase 1 work which involved the re-sculpting of the reservoir in preparation for the Phase 2 final grading and liner installation. The work has had substantial completion from both Phase 2 contractors in November 2020
- Chambers reservoir is having the final inspection by the State Engineers Office Dam Safety branch, and the approval of the initial filling plan to allow up to 150 acre-feet of water to the reservoir.
- Design of modifications to the Chambers Pump Station to pump water from the reservoir into the non-potable irrigation system;
- Installation of three Reduced Pressure Zone (RPZ) assemblies in critical areas of the distribution system to be able to safely back-feed potable water to irrigation systems, if needed;

- ECCV Booster Pump station has been completed to allow delivery of the 5.25 MGD of ACWWA Flow Water to be transferred to ACWWA distribution system. Performance tests have been completed that confirm the delivery the rate of flow.
- ECCV Northern Water Treatment Plant expansion for ACWWA's additional 3.0 MGD of flow is essentially complete. The use of the Phase 2 expansion is in final testing to provide the complete 5.25 MGD of ACWWA Flow Water to the ACWWA distribution system.
- ECCV NWTP Phase 1 process treatment will have the complete replacement of the reverse osmosis membranes to enable the plant to run for longer periods of time between the normal cleaning regime. All of the 8 year old membranes will be replaced by end of year.
- JWPP has been able to produce 1.0 MGD of reverse osmosis and microfiltration treated water for both ACWW and Cottonwood Water and Sanitation District through the 2020 calendar year.
- JWPP Finished water Pump System has been authorized for purchase and installation of new delivery pumps for both ACWWA and CWSD. These pumps will provide a more efficient delivery for both entities.
- ACWWA has awarded contract to equip the Lone Tree Creek Water Reuse Facility existing 3rd train of the Biological Nutrient Removal treatment process and secondary clarifier units. This project will complete in 2021, but contract and equipment purchasing has begun in 2020.
- Waterbury Lift Station improvements will be completed by the end of the year— upgrading this wastewater collection and conveyance system to provide a more reliable and safer operating system for customers and Staff.
- Completed the conversion of local golf course to Regulation 84 Reuse water from the potable system. This project was completed prior to the 2020 season and has allowed the course to operate continually through the irrigation season.
- ACWWA continued to work on changing out transmitters for ACWWA water supply meters to allow for a more efficient means of collecting billing data. Long term consideration for the improved methods of data collection for all of ACWWA's water meters is ongoing.
- Continued to upgrade ACWWA's GIS system and implemented ESRI software to help us better track and maintain infrastructure assets;
- Continued successful operation of Arapahoe County's Justice Center screening facility and water system at their Eastern Service Center;
- Continued to negotiate with outside the service area developers for potential service contracts.

- ACWWA implemented its Asset Management program led by Consultants Hazen and Sawyer. Currently we're finishing up the first of the three phases.
- 811 Tier 1 Locates is mandated by state law 1/1/2021, we have been up and running with this program 6 – months ahead of the due date.
- SCADA and Network improvements are underway following a SWOT analysis in February, we're in process of building a roadmap to complete all identified improvements.
- Revisited the Hydrant Program and have repaired and service 540 Hydrants this year and plan to continue these improvements throughout 2021.
- Dashboard for all wells and Chambers Reservoir using Microsoft's Power BI platform, that will give real-time performance metrics on important KPI's.
- Desktop Well analysis will be completed this Dec. Producing a report detailing in depth condition assessments on all alluvial and Denver wells. Using this data we can plan for upcoming CIP projects.
- Installed 200 meters, 60 fire hydrants, and 175 gate valves.

- **Development**
 - ACWWA staff reviewed and approved a number of residential and non-residential developments in 2020. These projects resulted in over 180 tap equivalents sold through September 2020. Inspectors released 13 development projects for probationary acceptance and 14 projects for final acceptance;



Finished Water pumps at JWPP.

8. Budget Process and Timeline

8.1 Budget Preparation

ACWWA prepares an annual budget to provide a blueprint for operations for the coming year. Copies of the draft and final budget will be made available to all interested parties and opportunities will be provided for public input prior to final adoption. Each year, as part of the budget process, ACWWA's goals and objectives are reviewed and updated as necessary to reflect current challenges as well as changed conditions. Staff also seeks direction from the Board of Directors.

8.2 Budget Calendar

<u>Date</u>	<u>Activity</u>
August 2020	Director of Finance meets with Executive Team and department heads to determine staffing levels, expense budgets, and capital outlay needed for 2021; begin developing budget.

September 2020	Staff continues to develop the budget.
October 2020	Staff presents draft 2021 budget to the Finance Committee on September 25 and to the full Board on October 14.
November 2020	Staff presents 2 nd draft of 2021 budget to Board and holds rate hearing.
December 2020	On or before December 31, the Board adopts the budget.
January 2021	No later than 30 days following the beginning of the fiscal year of the budget adopted, the budget is filed with the State of Colorado.

8.3 Annual Budget Statutory Requirements

ACWWA's annual budget is prepared and adopted under the provisions of C.R.S. §29-1-113. ACWWA's fiscal year is January 1 through December 31.

On or before October 15 of each year, ACWWA's Director of Finance and Business Operations submits a draft budget to the Governing Board. The budget covers proposed operations and funding requirements for the ensuing fiscal year. On or before December 31 of the current year the Governing Board adopts the budget. ACWWA advertises all required meetings of budget discussions along with the intent to adopt the budget.

A resolution adopting the budget and appropriating the funds is filed with ACWWA's Director of Finance, whose duty it is to disburse monies or issue orders for the payment of monies as required by statute. The final adopted budget for ACWWA is the operating and fiscal guide for the ensuing year.

8.4 Budget Amendments

A budget amendment is defined as any action that increases or decreases total appropriated fund amounts in ACWWA's adopted budget. Budget amendments could be caused by various reasons, such as:

- The availability of more accurate information after the budget is adopted;
- Modified operating requirements;
- Year-end accounting adjustments.

Budget amendments must follow strict statutory guidelines. The intent to amend the budget and the notice of the Governing Board meeting and Public Hearing at which the amendment will be considered and potentially receive approval must be published in a newspaper that has general circulation within the ACWWA service area.

8.5 Lapse of Appropriations

All unexpended appropriations expire at the end of the fiscal year pursuant to C.R.S. §29-1-108 (6).

8.6 Budget Transfers

Budget transfers are defined as any action that changes the budget amount associated with a service, as adopted by the Governing Board. Budget transfers change budget amounts from one line item to another. It is important to note that budget transfers, unlike budget amendments, do not change total overall budget appropriation levels. Budget transfers may be processed by action of the General Manager.

8.7 Filing of the Budget

No later than thirty days following the beginning of the fiscal year of the budget adopted, the governing body shall cause a certified copy of the budget, including the budget message, to be filed with the State of Colorado pursuant to C.R.S. §29-1-113 (1).

8.8 Financial Structure

The State of Colorado and Generally Accepted Accounting Principles govern the use of funds and the budgeting, accounting and auditing associated with this fund structure, as determined by the Governmental Accounting Standards Board.

ACWWA works in concert with Arapahoe County to accomplish water management objectives. The primary authority for the operation of ACWWA is an IGA between Arapahoe County and the PID. ACWWA's budget includes all operations over which ACWWA is financially accountable. ACWWA has one fund, a general fund. There are no component units required for inclusion in ACWWA's budget; however, ACWWA is a component unit of Arapahoe County.

The primary budgetary objective is to provide the highest possible level of service to ACWWA's project participants without impairing ACWWA's sound financial condition. Continual efforts are made to improve productivity, lower costs and enhance service. ACWWA will endeavor to keep current expenditures less than current revenues. Current expenditures are defined as operating expenses, debt payments and capital improvement expenditures.

ACWWA will maintain a budgetary control system to ensure adherence to the budget and will prepare regular reports comparing actual revenues and expenditures to the budgeted amounts. Law and policies limiting revenue sources and expenditures must be explicitly addressed in the budget process. The Governing Board will not establish a goal or policy without also providing the necessary funding to accomplish those goals or policies.

The adopted budget may only be changed through actions by the Governing Board. Staff may make budget change requests to the Governing Board at a regularly scheduled Board meeting. The Governing Board will then consider the requests based on staff's recommendations and approve or deny the requests by a majority vote.

8.9 Budgetary Control

ACWWA's Finance Department prepares interim financial statements with comparison to budget on a monthly basis for review by the Board.

8.10 Contacting ACWWA's Finance Department

This financial report is designed to provide the Board, customers, creditors and investors with a general overview of the Authority's financial condition. Should you have any questions regarding the content of this document, please contact ACWWA at (303) 790-4830.

EXECUTIVE SUMMARY



Chambers Reservoir Liner Under Construction

9. Executive Summary

The 2021 Budget for ACWWA includes both operating and non-operating components. It was prepared by ACWWA's Finance Department in accordance with Generally Accepted Accounting Principles (GAAP) and State of Colorado budgetary requirements. We believe the data presented is accurate in all material respects and is presented in a manner designed to fairly set forth the financial position of ACWWA.

ACWWA has one enterprise fund and distinguishes operating revenues and expenditures from non-operating items. Operating revenues and expenditures generally result from providing services and delivering water in connection with the ongoing operations. The principal operating revenues of the Authority are charges to customers for services. Operating expenditures include the cost of providing services, administrative expenses, and depreciation on capital assets. All revenues and expenditures not meeting this definition are reported as non-operating revenues and expenditures.

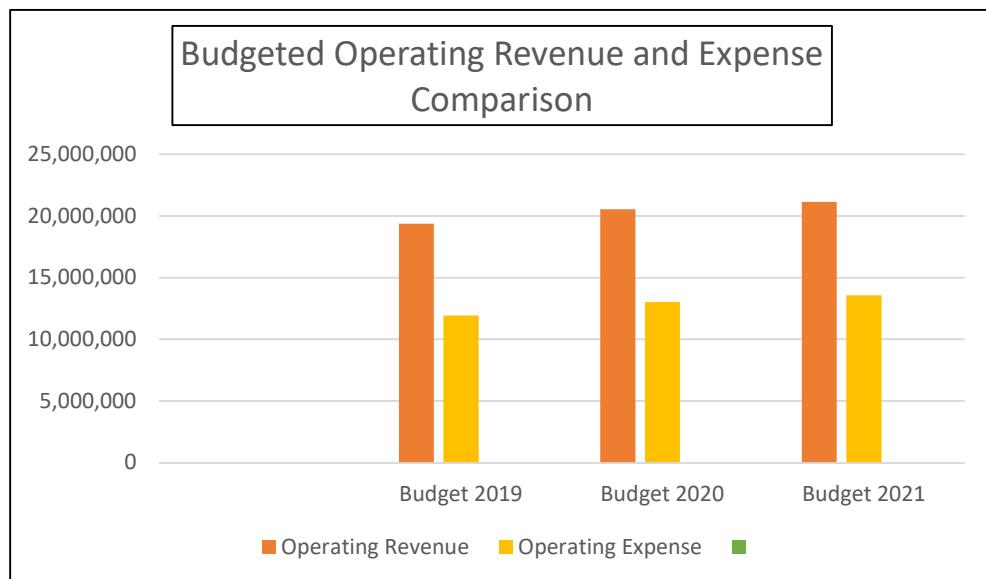
9.1 Significant Budgetary Items and Trends

The 2021 budget provides funds for an optimal level of expense needed to operate ACWWA in order to provide effective service to ratepayers, maintain the current infrastructure, and add the necessary capital improvements to ensure future operations. ACWWA conducted a cost of service study in 2015 to ensure that rates are adequate to fund current operations as well as current and future capital improvements, and the financial model was updated in 2017. As the infrastructure ages, continued investment in the system will be needed to keep it functioning at a high level. Key components of the 2021 budget include:

- Water volume rate and water service fee increases of 3%;
- Wastewater volume rate and wastewater service fee increases of 2%;
- Water tap fee increase of 3%; wastewater tap fee increase of 2% for a combined tap fee increase of 2.0%;
- Operating revenue of \$21.3 million;
- Operating expenses of \$13.6 million;
- Non-operating revenue of \$5.3 million, primarily from tap fees;
- Non-operating expenditures of \$18.9 million comprised mainly of debt service payments of \$7.7 million and capital spending of \$11.2 million, including \$5.2 million in capital costs that are being carried over to 2021 from the 2020 budget;
- ACWWA is able to fund necessary capital improvements for the next several years without incurring new debt; however, a bond issue may be necessary in the future to help fund system improvements.

- Two new positions were authorized to assist ACWWA in the high level of activity is experiencing and allow for additional capacity to ensure ACWWA's level of service commitments.

9.2 Operating Budget



Operating Budget 2019 - 2021

Operating Revenue

Operating revenue is projected to be \$21.3 million in 2021, which reflects an increase of \$592 thousand over the 2020 budget, and an increase of \$508 thousand from 2020 estimated operating revenue.

Water Charges

Water charges revenue for 2021 is budgeted to increase \$223 thousand or 2.0% from 2020 estimated revenue. Consumption and fee revenue will increase by a 3% rate factor and a 2% account growth factor.

Sewer Charges

Based on 2021 results escalated for account growth and rate increases, wastewater revenue is expected to increase \$292 thousand, or 5% compared to forecast 2020 revenue. Budgeted 2020 revenue includes a 2% volume increase, and a 2% account growth factor.

Fire Lines

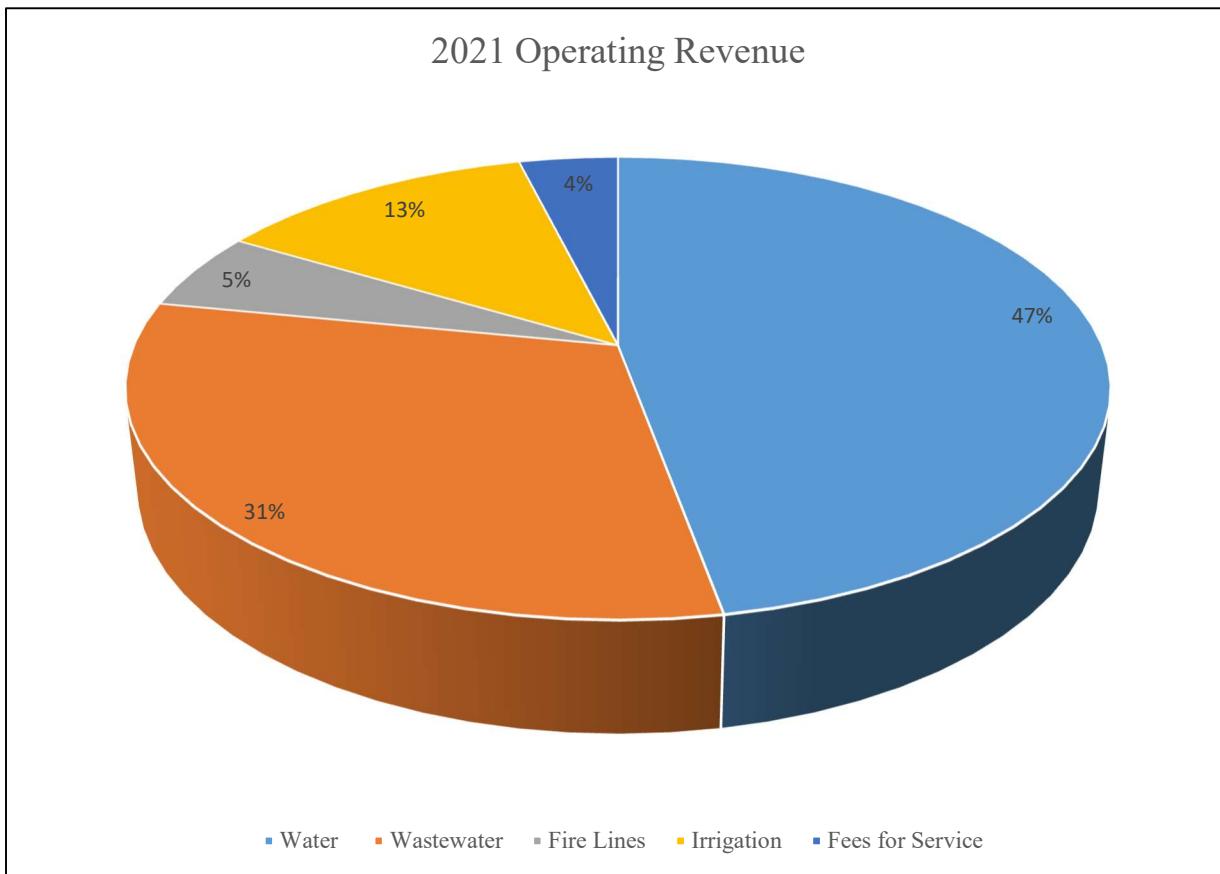
Fire line stand-by revenue is anticipated to increase by an account growth factor of 2% in 2020, with no increase to rates.

Irrigation Revenue

Irrigation revenue is expected to be 9.9% over budget for 2019, even with above normal precipitation in June and July. The budget for 2020 reflects an increase of \$224 thousand from the 2019 budget, and a decrease of \$7,291 from estimated 2019 revenue.

Fees for Service

Fees for service are budgeted to decrease slightly in 2021 compared to the 2020 budget, by \$30 thousand, as lower tap sales will result in lower meter and inspection fees. Revenue in 2019 includes an \$850 thousand settlement for Chambers Reservoir.



Operating Expenses

The 2021 operating expense budget reflects a 4.0% overall increase from 2020 budgeted operating expenses. Expenditures of \$13.6 million are budgeted to be \$563 thousand higher than the 2020 budget. One of the main factors driving the increase are the budgeted cost of operating the JWPP as an RO plant for all of 2021 compared to a portion of 2020. The RO treatment process requires higher levels of labor, power, and chemicals costs than does the current microfiltration treatment option; however, RO results in much higher water quality. Additionally, the costs of treating ACWWA Flow water have increased with the expansion of the ECCV Northern RO plant, and the execution of the Consolidated Infrastructure Agreement with United Water and Sanitation.

Office Expenses

The budget for 2021 office expenses reflects a 43% estimated increase in year-over-year budgeted costs, and includes funding for asset management, compliance and document management software and due to the inclusion of other expenditures previously included with contractual services.

Salaries and Benefits

The 2021 salaries and benefits budget reflect an increase of .3% from the 2020 budget and includes 40 FTEs for the entire year. Compared to 2020 estimated costs of \$4.2 million, salaries and benefits expense in 2020 will be \$292 thousand higher due to an increase in staffing to meet capacity and service level demands, a 3.0% overall salary adjustment and a 5% increase in medical benefit premiums.

Insurance

General liability, property, and workers' compensation insurance premiums are expected to increase an average of 4% from 2020 levels in 2021. ACWWA anticipates a decrease in its workers' compensation premiums, as the experience rating will decline in 2021 due to consecutive years with no time lost to accidents.

Legal Fees

Legal fees of \$151 thousand are projected to decrease 23% compared to 2020 budgeted costs of \$195 thousand. ACWWA anticipates a decrease in 2021 litigation expense as pending matters have largely been resolved.

Professional Fees

The 2021 budget for professional fees of 710 thousand is \$102 thousand, or 13% lower than the 2020 budget. The professional fees budget includes general engineering, development, and other consultant support, water rights protection and accounting, audit fees, information technology maintenance and support, new software program implementation, and specific projects such as ARC Flash and VFD reliability studies, and JWPP studies on stream standards and permit issues.

Repairs and Maintenance

The repairs and maintenance budget of \$1.2 million reflects a decrease of \$6 thousand compared to the 2020 budget. this time, there are no major R&M projects planned for 2020, although staff will focus on fire hydrant repairs.

Operational Expenses

Operational expenses are projected to increase \$494 thousand from forecasted 2020 expenses, and \$586 thousand from 2020 budgeted expenses. This increase is due to the \$1.2 million contract with Jacobs Engineering to operate the reconfigured JWPP. The agreement includes a performance guarantee, and the cost of this contract is partially offset by decreases in expenses that ACWWA would normally incur to operate the plant, including labor, power, and chemical costs. Increased water treatment costs are also a factor in the year-over-year change.

Utilities

The 2021 budget for utilities expense is \$1.2 million, reflecting a slight decrease from 2020. Although some rate increases are expected, power costs for pumping should be in line with 2020 costs as ACWWA will continue receive water from the JWPP for the entire year in 2021.

Contract Services

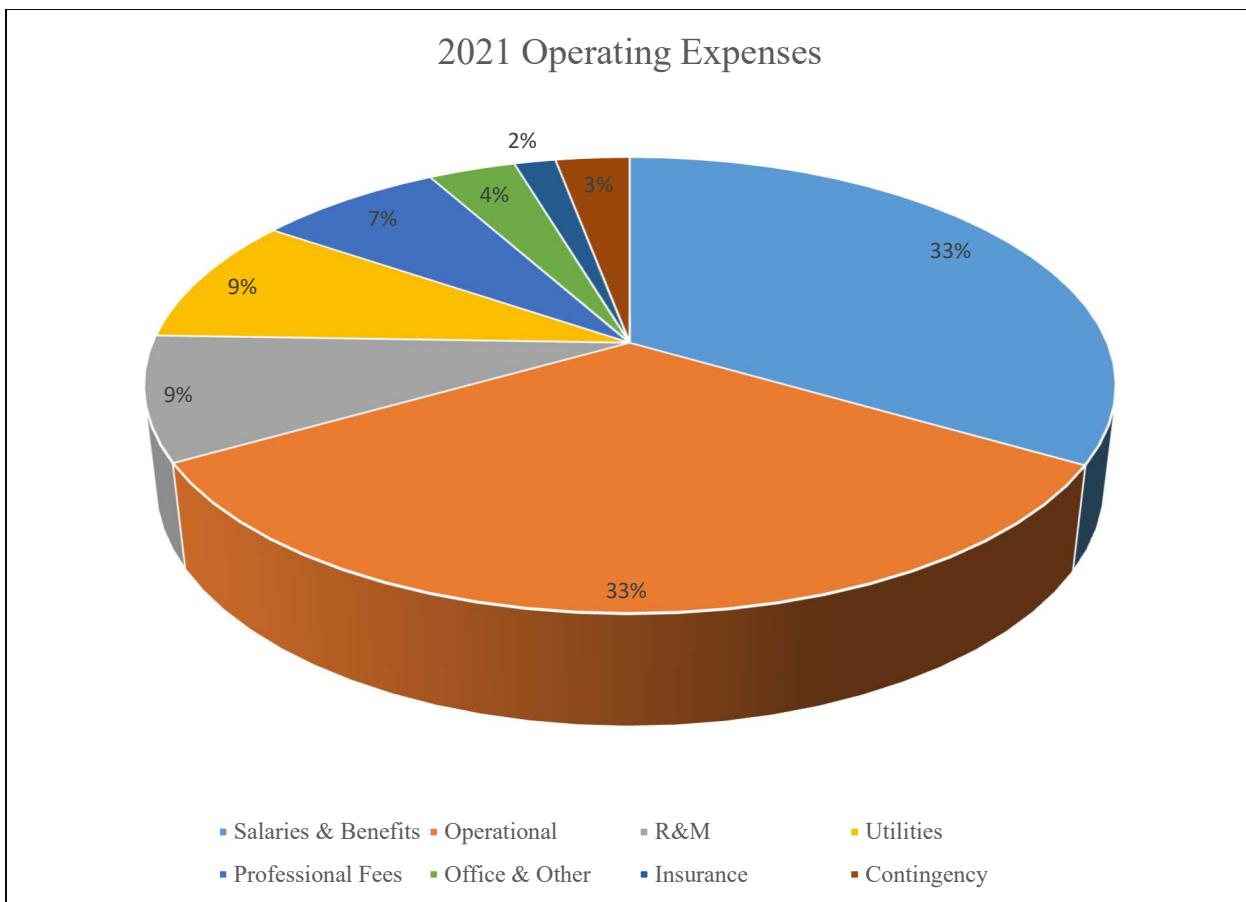
This line item is comprised mainly of sludge hauling, and the 2021 budget anticipates that expenses will decrease \$85 thousand primarily due to expenditures be categorized with office expense in 2021.

Other Supplies and Expense

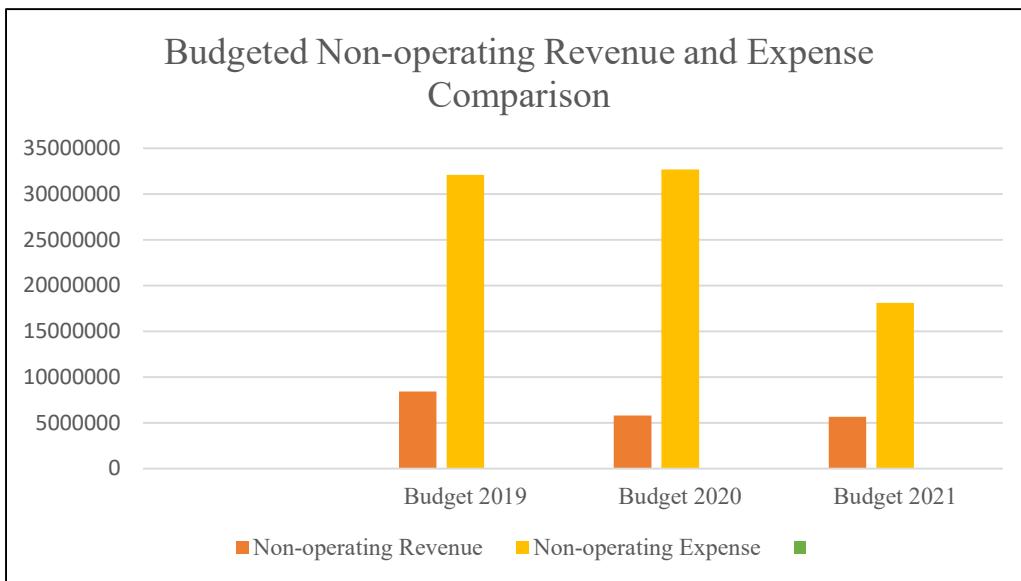
There are no increases budgeted in this category.

Contingency

A contingency budget of \$400 thousand was included to fund unanticipated expenses such as major emergency system repairs. In years past, ACWWA has experienced several major line breaks that have been quite costly to repair, as well as the failure of the Valley Country Club lift station in June 2019. As the water and wastewater systems infrastructure age, line breaks and other issues will become more common, even with a robust preventive maintenance program such as ACWWA's. The contingency line also includes provisions for unexpected legal costs and professional services projects directed by the Board.



9.3 Non-operating Budget



Non-operating Revenue:

Non-operating revenue, comprised primarily of tap and water resource fees, is budgeted to decrease \$150 thousand, or 3.0% from budgeted 2020 revenue as development in ACWWA's service area is expected to taper off from the recent high levels.

Interest Income

In 2017, ACWWA further diversified its portfolio by investing in two pooled investment trust funds designed for local governments, Colotrust (Colorado Local Government Liquid Asset Trust) and CSAFE (Colorado Surplus Asset Fund Trust). The decreasing interest rates caused 2020 estimated investment income to be less than budget by \$145 thousand. In 2021 ACWWA expects to draw down its reserves to pay for necessary capital improvements and is budgeting for a decrease of \$175 thousand over 2020 budget.

Miscellaneous Revenue

Miscellaneous revenue through 2019 was largely comprised of the BABS subsidy, which was eliminated with the refunding of the Series 2009 Build America Bonds, which resulted in the loss of the BABS subsidy. The remaining revenue is comprised of Chapparal water system payments, ditch company distributions, and fire flow revenue.

Tap Fees and Contributions

Both water and wastewater tap sales are anticipated to decrease in 2021 from the high levels experienced from 2018 - 2019. Increases in the costs of building materials are expected to slow growth in both residential and commercial development. ACWWA has been seeing the decrease in construction activity in its service area through one key indicator, number of construction hydrant meters that are rented out. ACWWA has budgeted for sales of 120.0 tap equivalents (TEs) in 2021, compared to projected sales of 135.0 in 2020. This includes 25 TEs for Cottonwood Water and Sanitation District. As of late 2020, there are 229 potential taps under review that are expected to be sold between the 2020 and 2021.

Non-operating Expenses

Non-operating expenses are budgeted to decrease approximately \$13.8 million, or 42.2%, over 2020 budgeted expenditures because of the decrease in the capital budget. The 2020 capital budget reflects a decrease of \$13.9 million from 2020.

Debt Service

Debt service is expected to decrease \$153 thousand due to the addition of the CWCB loan related to the Chambers Reservoir Liner.

Capital Outlay

Of the \$11.2 million capital budgeted for 2021, \$5.2 million is carried over from the 2020 capital budget for projects that were approved and budgeted for in prior years, but that have not yet been completed. These projects are funded from prior year reserves. A detailed list of 2021 capital projects can be found in §10.

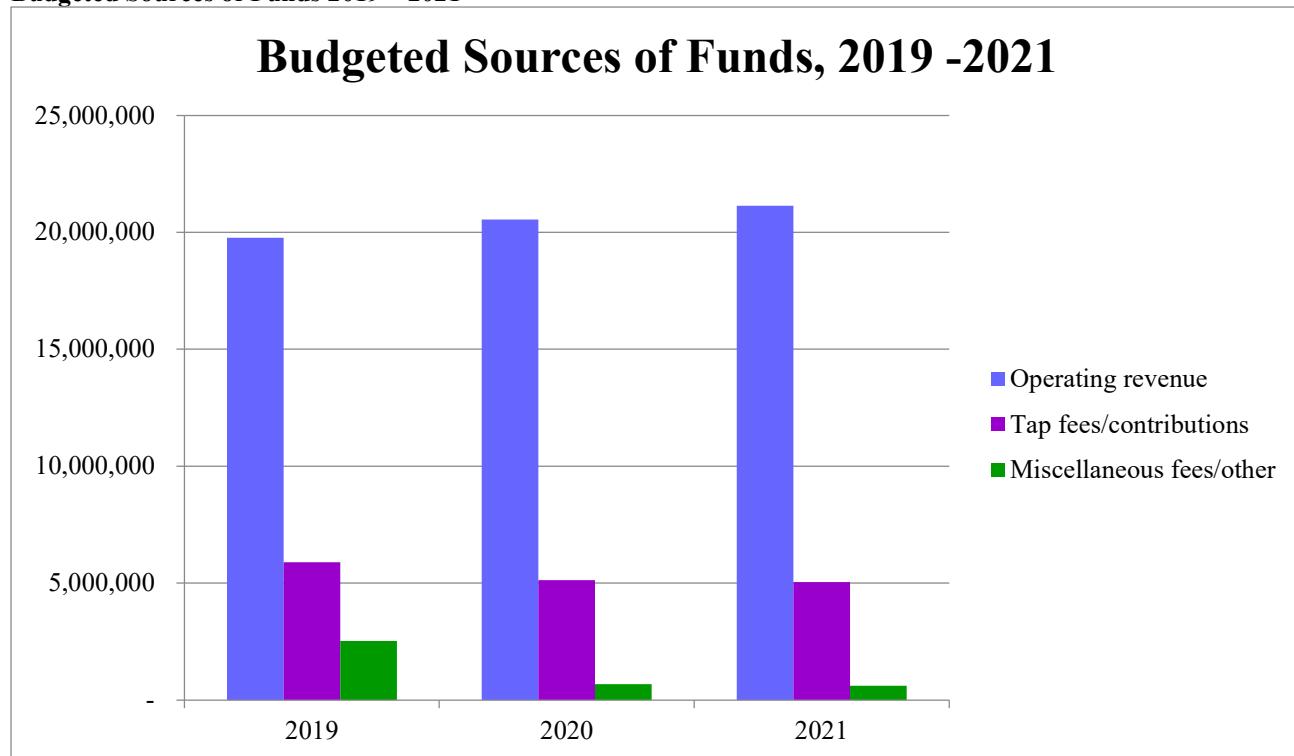
9.4 Long-range Financial Plan

In late 2015, ACWWA engaged Carollo Engineers to conduct a cost of service study that was finalized in the first quarter of 2016. Carollo also developed a financial plan for ACWWA based on the 20-year capital plan. ACWWA retained Carollo to update the financial plan in 2017, as a number of assumptions had changed (e.g., higher tap sales and less precipitation than originally planned for). ACWWA anticipates commissioning a new cost of service study in 2021.

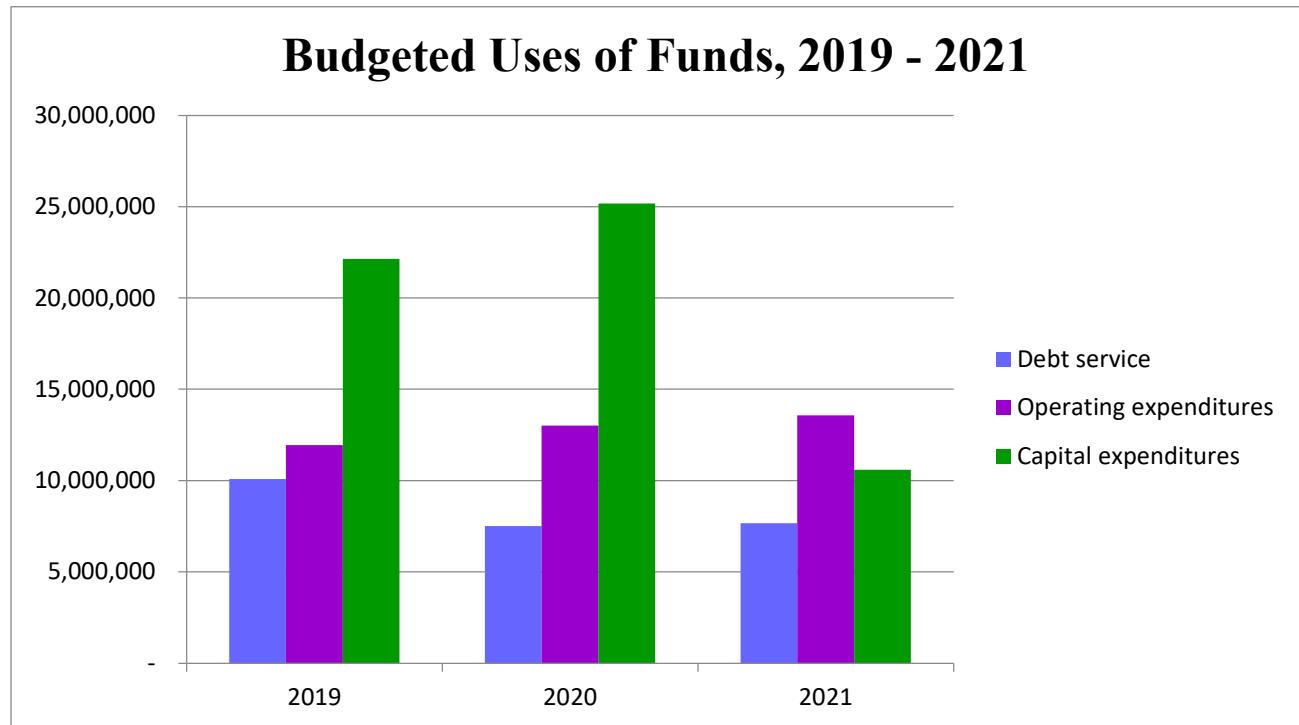
Based on financial trends through mid-2015, Carollo projected that ACWWA would need to raise water and wastewater rates 3% and 2%, respectively, each year to fund operations and projected capital needs. ACWWA does not have taxing powers and thus must fund capital projects through a combination of cash provided by rates and fees, and debt financing.

9.5 Sources and Uses of Funds (Budgeted)

Budgeted Sources of Funds 2019 – 2021



Budgeted Uses of Funds 2019 -2021



10. 2021 Capital Improvements Program

ACWWA's Capital Improvements Program (CIP) is a key component of the budget, as it identifies the critical projects required to ensure ACWWA can meet the needs of its customers. The major projects in the 2021 capital improvement budget are listed in this section.

Projects have been ranked by priority as follows:

PRIORITY 1 PROJECTS

ACWWA Flow Adjudication Costs:

This includes the anticipated 2021 adjudication costs for the ACWWA Flow project. These are the legal and engineering support fees needed to complete the applications for the change of water rights from agricultural use to municipal use.

If the change cases are not pursued at the current pace, ACWWA could lose some of its water rights yield due to a changing political landscape and the nature of water court. Additionally, ACWWA has multiple consultants working on the design, modeling and development of the overall ACWWA Flow project. These efforts are to create an operational model to ensure the delivery of the 4,400 acre-feet of average yield from ACWWA's water rights and will help with the project water delivery.

The estimated cost for ACWWA Flow water rights adjudication for 2021 is \$1,250,000. The current stage of adjudication has minimal impact on operating expenses.

Water System Asset Replacement

The water distribution system runs 24/7/365 and needs to provide continuous service. For 2021, \$400,000 has been budgeted to cover unplanned costs for potable water system components, including items such as major valve repair or replacement, pump repair or replacement, etc.

12" and 18" Isolation Valve Replacement {Arapahoe Road}

Some of the existing valves on ACWWA's 12" and 18" water mains in Arapahoe Road are inoperable causing problems for isolating the system when water main breaks occur. \$80,000 has been budgeted in 2021 for this project.

Wells Asset Replacement

ACWWA currently operates numerous deep groundwater and alluvial wells that supply water for both potable and non-potable uses. The well casings and appurtenances deteriorate over time, necessitating the cleaning, repair, and replacement of the appurtenances and potentially redrilling of the well. These wells are critical to ACWWA's ability to meet its water supply requirements. \$500,000 has been budgeted in 2021 for rehabilitation, repair, and/or replacement of these wells.

Condition Assessment of Wells

This project provides an initial assessment of ACWWA's wells and pilots a dashboard for ongoing review and monitoring of the condition of these wells. There is \$14,000 budgeted for 2021.

Asset Management

A long-term goal of ACWWA is to be able to monitor and assess the condition of all ACWWA's assets to determine the time and cost of their replacement for long term budgeting. \$50,000 is budgeted in 2021 as the first phase of this long-term project.

ACWWA Flow Renew and Replace

In November 2019 ACWWA executed the Consolidated Infrastructure Agreement (CIA) with United Water and Sanitation District (United) and East Cherry Creek Water and Sanitation District (ECCV). This agreement established ownership, operations, and maintenance responsibilities for the various components of the ACWWA Flow system. One of the responsibilities of ACWWA is to fund the upgrade, renewal, and replacement of ACWWA's portion of these facilities. \$100,000 is budgeted in 2021 for this requirement.

Water System Upgrades

The water distribution system requires upgrades to various components that degrade and/or fail throughout the year such as PRVs, ARVs, in-line valves, and hydrants. There are several large diameter valves that have been identified as needing replacement next year which cost more than the smaller diameter valves. There is \$300,000 budgeted for 2021 for these upgrades.

LTCWRF VFD Replacement

There are several pieces of critical equipment at the LTCWRF that require VFDs. Several of these VFDs are aging and are approaching their end of life. This project is to proactively replace some of the aging VFDs to minimize the risk of treatment and operational disruptions from a failed VFD.

The estimated cost for this project in 2021 is \$181,000 and should have no impact on operating costs.

LTCWRF Process Pumps Replacement

Many of the pumps at the LTCWRF are reaching their end of life after being in service since the original facility construction. \$24,000 has been budgeted in 2021 for rebuilding and/or replacement of the service water jockey pump, the WAS pump, and the filter feed pump.

High-Zone Conversion to Re-Balance Supply Distribution

With the JWPP plant coming back online as an RO plant at a higher flow capacity, most of the water supply to the distribution system will be sent to the High-Pressure Zone. There are pump station and PRV modifications that will need to be completed to re-balance the water supply distribution across the pressure zones.

This project does not impact operating expenses and is budgeted in 2021 for \$100,000.

Water Meters for New Developments

Water meters are installed at each new development that comes online in ACWWA's service area. These meters are ultimately reimbursed by the developer but initially is purchased by ACWWA. \$45,000 has been budgeted in 2021 for this project.

Transmission Main - Arapahoe Road to Chaparral Storage Tank

This is a redundant water transmission main which will provide direct transmission of ACWWA Flow water from ECCV to the 4 MG tank at Chapparal. The benefits of this main is to provide redundancy to the main water feed into and out of the 4MG tank while improving the age of water within the ACWWA distribution system by flowing all ACWWA Flow water through the 4 MG tank. \$150,000 have been budgeted in 2021 for design of this project. Construction is currently planned and budgeted for in 2022.

Master Plan Additional Scope for Critical Customers Evaluation

There are several facilities in the ACWWA service area where the uninterrupted supply of water is critical to their operations. This study will identify those facilities, analyze the risk to water outages at those facilities, and propose improvements to minimize those risks. \$50,000 has been budgeted in 2021 for this project.

Administration Building

The ACWWA Administration Building is coming to the end of its useful life. The needs analysis and design of a new administration building was budgeted for 2020 and is expected to be completed in early 2021. The construction of a new administration building is expected to occur starting in mid to late 2021 and carrying over into 2022. The total estimated cost of the building is \$3,300,000. \$1,500,000 of this amount has been budgeted for 2021 with the remainder to be budgeted in 2022.

Chambers Reservoir Pump Station and Piping:

This project is to provide the funds to complete the pump station improvements started in 2020 so that the pump station is capable of providing irrigation water to ACWWA's raw water irrigation system once Chambers Reservoir is filled to the level necessary to meet the raw water irrigation system demands.

This project is budgeted in 2021 at \$150,000 and has no current impact to operating costs.

Generator Natural Gas Conversion Study

All of ACWWA's current emergency generators are fueled by diesel fuel. These generators are exercised periodically but require periodic monitoring of fuel levels and fuel quality to keep them ready for operation. As these generators reach the end of their useful life, replacement with a natural gas generator may provide savings in fuel and operational costs while reducing the risk that they can't be refueled during an emergency. This study will evaluate whether conversion to natural gas when needed is prudent and/or economical. \$20,000 has been budgeted in 2021 for this study.

LTCWRF (Centrifuge feed pump spare parts)

This project is to replace the spare parts which are maintained on the shelf for the centrifuge feed pump to replace parts that were used in 2020. Presently there are no spares on site and replacement would reduce the risk of interruption in the solids handling process. This project does not impact operating expenses and is budgeted in 2021 for \$17,000.

Critical repair parts for ACWWA Infrastructure

Critical repair parts may not be readily available if there's a major break in the 36", 24", 18" Asbestos Cement (AC) distribution line in Arapahoe Road and would potentially cause catastrophic damages to ACWWA due to not having the ability to maintain water service to critical customers for extended periods of time. This project does not impact operating expenses and is budgeted in 2021 for \$30,000.

Capital Equipment Outlay (Lone Tree pH meter, Autoclave)

Current Autoclave has been in service for 10 years and has been repaired 3 times to correct the door latch system. A newer model of Autoclave will reduce the concern for proper sterilization of equipment and buffer water used in permit required e Coli testing. Current pH probe has been in service for 10 years and has become increasingly harder to calibrate and bring within required specs. A newer model of pH probe will reduce the time spent bringing the meter into specs for the required 5x per week test and increase the confidence in its accuracy. This project does not impact operating expenses and is budgeted in 2021 for \$15,000.

Accounting/Billing Software System Upgrade

The current accounting and billing software is outdated, cumbersome to use, and has limited functionality. New technology can provide customers the ability to access bills more easily and will help improve staff productivity through streamlining basic processes.

The estimated cost for this software in 2021 is \$100,000 and will cause a moderate increase in operating expenses from maintenance and support costs.

Hypochlorite Tanks Replacement

\$29,000 has been budgeted in 2021 to replace aging sodium hypochlorite tanks in the ACWWA water supply facilities.

PRIORITY 2 PROJECTS

LTCWRF Redundant Centrifuge and Spare Parts

The centrifuge at the LTCWRF is a vital component in ACWWA's sludge handling system. Failure of the centrifuge would not allow ACWWA to dewater the sludge produced at the facility, causing operational problems and additional costs for hauling of ACWWA's sludge waste. A redundant centrifuge is needed to avoid these issues. \$150,000 has been budgeted in 2021 for this project.

ACWWA Water Meter Transmitter Upgrade Project

ACWWA is in the process of replacing the current touch-read water meters that collect monthly water meter readings with radio-read (drive by) meter data transmitters. The installation of the new transmitters will improve data reliability, reduce the manpower needed to read meters, and enhance safety by reducing the risk of accidents. \$60,000 is budgeted in 2021 to remove and replace the existing transmitters. This project will reduce the man-hours needed to read meters but will not materially affect operating costs as time saved will be channeled to other activities.

Peoria Lift Station Evaluation

An overall evaluation of the Peoria Lift Station is needed to assess the condition of all the equipment at the station. Specifically, evaluation is needed of the instrumentation and controls as well as possibly some new piping. This project includes the identification and the replacement/rehabilitation of lift station components found to be inadequate. \$200,000 is budgeted for this project in 2021 and should have no impact on operating costs.

ACJC Washer Compactor

The Arapahoe County Jail Center discharges into ACWWA's wastewater collection system after sewage is diverted through a sewage automated bar screen to reduce the waste size to that which can be carried in the collection system to the LTCWRF. The current waste screen in this facility must be hand cleaned with the screenings placed into an onsite dumpster for disposal. This operation could be considered a health and safety hazard. The proposed project would wash and compact the screenings before disposal, thus reducing the health and safety hazard. \$150,000 is budgeted for this project in 2021 and should have no impact on operating costs.

Wellsite Landscape Improvements / Erosion Control

Over time the well sites throughout the ACWWA service area need regular, routine maintenance but periodically the sites need more than routine type maintenance. There is \$40,000 in the 2021 budget for these well site improvements.

New Trimble R-2 GPS Device

ACWWA is required to provide accurate locates of ACWWA facilities for construction within ACWWA's service area. These locates depend on accurate GIS information. A new Trimble R-2 GPS device will allow ACWWA staff to locate and record in the field the actual location of ACWWA facilities when they are exposed or found, thus improving the accuracy of ACWWA's GIS system and the locates obtained from the GIS information. \$12,000 is budgeted for this project in 2021 and should have no impact on operating costs.

PRIORITY 3 PROJECTS

Capital Equipment Outlay

ACWWA staff performs in-house maintenance on many of ACWWA's equipment and facilities to ensure their proper operation. This work is done quicker and at a lesser cost than sending out for repairs. This project includes purchase of tools and equipment such as scissor lift, welder, MOT equipment, Big Joe replacement, pump shop tools, etc. to facilitate this maintenance work including replacement of equipment used for these repairs that is no longer operable or usable. \$82,500 is budgeted for this project in 2021 and should have no impact on operating costs.

LTCWRF - SCFM Ammonia Controller/Small Blower

This project is to replace the aging SCFM ammonia controller/small blower. \$150,000 is budgeted for this project in 2021 and should have no impact on operating costs.

LTCWRF - Demo Building 3

Building 3 is an old building that is no longer in use and is in disrepair. The electrical system is suspect, the building floods during precipitation events, and its existence is a health and safety hazard. This project would demo the building to eliminate the current risks of the existing structure. \$25,000 is budgeted for this project in 2021.

Administration Building Improvements

The ACWWA Administration Building requires ongoing improvements and \$5,000 has been set aside for these projects for 2021.

CARRYFORWARD PROJECTS

SCADA Program Development Upgrades and Controls for the Reg 84 and Non-Potable System

Several SCADA upgrades have been identified to tie everything together and bring all controls up to the same level. Additionally, SCADA modifications are needed once Chambers Reservoir is online to get the Reg 84 and Non-potable systems to be able to be maintained and operated remotely.

\$187,500 of the amount budgeted in 2020 is expected to be carried forward to complete the construction of the project and the project is not expected to affect operating costs.

LTCWRF – Clarifier/BNR:

The LTCWRF currently has two clarifiers which are always required to operate. Adding a third clarifier provides the redundancy needed to take the existing clarifiers offline to perform routine O&M activities. The LTCWRF currently has two BNRs which are always required to operate. Equipping the third BNR provides the redundancy needed to take the existing BNRs offline to perform routine O&M activities.

This project is currently under construction. \$2,206,000 of the amount budgeted in 2020 is expected to be carried forward to complete the construction of the project and the project is not expected to affect operating costs.

LTCWRF Landia Mixers

The mixers at the Surge Tank and EQ Basins at the LTCWRF are old and need to be replaced. \$100,000 of the amount budgeted in 2020 is expected to be carried forward to complete the construction of the project and the project is not expected to affect operating costs.

Chambers Reservoir Pump Station and Piping:

Upon completion of the Chambers Reservoir Rehabilitation project, pumps, piping, VFDs, and controls at the Chambers Pump Station need to be added/upgraded to allow the reservoir and pump station to meet its intended use as a water supply for ACWWA's raw water irrigation system. \$68,750 of the amount budgeted in 2020 is expected to be carried forward to complete the construction of the project and the project is not expected to affect operating costs.

ACWWA Evaluation of Conversion to Chloramine System for the Potable Water System:

ACWWA is currently evaluating the potential conversion to a chloramine-based residual disinfection system for the water distribution system. The potential change to the disinfection process needs to be considered, as ECCV may convert to a chloramine-based system within the next five years. There are considerations for the conversion to a chloramine based residual system, versus the option of maintaining a free chlorine-based system. \$30,000 of the amount budgeted in 2020 is expected to be carried forward to complete the construction of the project and the project is not expected to affect operating costs. There is no current impact to operating costs.

VCC Lift Station Electrical and Controls and Redundancy Improvements

The VCC Lift Station had a catastrophic failure in 2019 due to a pipe failure and all the electrical and controls equipment was compromised. The lift station has been repaired but requires improvements to the electrical and controls as well as redundancy at the current lift station based on the vulnerability assessment and options analysis that was performed in 2019 after the lift station event. \$500,000 of the amount budgeted in 2020 is expected to be carried forward to complete the construction of the project and the project is not expected to affect operating costs.

ACWWA Flow Project – South Platte Storage project:

The 2009 IGA between ACWWA, ECCV and United Water included the provision that ACWWA may purchase the right to store 500 acre-feet known as South Platte Storage. This payment is due to United Water once all documentation is delivered to ACWWA by United that the storage capacity is ready for use in the United Reservoir. This storage is currently available but improvements to the pump stations used to operate the reservoir are currently under construction and are expected to be completed in 2021.

The costs being carried over from 2020 for the 500 acre-feet of storage in South Platte Storage is \$1,800,000, and the project is not expected to affect operating costs.

Water Meter Replacement Program

ACWWA revenue comes mainly from sale of water to its customers and those sales are made through ACWWA installed water meters. Some of these meters have been in service for over 20 years and need to be replaced to ensure proper operation. \$145,000 of the amount budgeted in 2020 is expected to be carried forward for the project and the project is not expected to affect operating costs.

Integrated Master Plan - Water and Wastewater Master Plans:

ACWWA began updating the water supply master plan in 2017. Periodic updates to the existing master plan are required due to changes in the various water supplies and treatment systems in ACWWA's supply and distribution system. The planning effort for the water delivery and treatment system for the potable water supply, the non-potable/irrigation system, and the Regulation 84 (wastewater treatment plant effluent) will be the focus of the water master plan. The second portion of the master plan effort is the wastewater system, to include the collection system, the pumping and transfer system, and the wastewater treatment plant system and expansion.

\$96,250 of the amount budgeted in 2020 is expected to be carried forward to complete the project and the project is not expected to affect operating costs.

4 MG Tank Site – Irrigation, landscape, and drainage project

The 4 MG tank site sits on a hill where there are several drainage issues that have caused erosion around the tank site over time. This project is identified to address those drainage issues, as well as irrigation and landscaping issues to improve the overall site.

\$96,250 of the amount budgeted in 2020 is expected to be carried forward to complete the project and the project is not expected to affect operating costs.

11. Departmental Information

ACWWA's activities are divided among three primary departments.

Water operations includes ten direct FTEs who are responsible for:

- operations and maintenance of the water distribution system which consists of wells, pumps, piping, valves, storage tanks, Chambers Reservoir and meter vaults;
- water treatment and compliance testing to meet the standards of the Safe Drinking Water Act;
- flushing and special projects;
- reading and inspecting meters, including construction hydrant meters;
- utility locates
- operations and maintenance of the collections system, including lift stations, sewer lines, and pretreatment; and
- responding to customer service questions and issues.

Goals and Objectives: For 2021, the water operations department plans to focus on enhancing its valve exercising program, with a goal of 100/month and 1200/year. Valving on transmission lines gives the operators the ability to divert flows and allow vital maintenance to be performed. Water operations will also be involved in improving ACWWA's SCADA (Supervisory Control and Data Acquisition) system and in developing and implementing an emergency preparedness program.

Wastewater operations includes five direct FTEs who perform the following:

- operations and maintenance of the Lone Tree Creek Water Reuse Facility, which treats wastewater to comply with federal and state regulations prior to discharge in Cherry Creek Reservoir;
- laboratory testing to ensure compliance with all regulations;
- operations and maintenance of the non-potable water system.

Goals and Objectives: In 2021, the wastewater department plans to assist in the design of a 3rd clarifier and BNR unit for the plant. The department will also be involved in SCADA improvements and in developing and implementing an emergency preparedness program.

Administration: includes 26.0 FTEs in 2021 who are responsible for the following:

- the general management of ACWWA, including implementation of board policies;
- financial management including financial reporting, budgeting, cash collections, and disbursements;
- customer service and billing activities;
- procurement activities;
- information technology and website administration;
- engineering services and activities, including capital projects management, water resources management, and GIS coordination;
- development services;
- operations management including the overall management of the water and wastewater systems and maintenance operations;
- inspections and construction management; and
- maintenance of the plants, buildings, and equipment.

Goals and Objectives: ACWWA Administration has multiple goals, including:

- Conducting an analysis of the current SCADA state and developing a strategic plan;
- Enhancing ACWWA's emergency preparedness plan;
- Initiating key capital improvement projects, including the design of the third clarifier and BNR for the wastewater treatment plant, converting a large water user to Regulation 84 (reclaimed water), improvements to the Waterbury Lift Station, and completing Phases I and 2 of the Chambers Reservoir reconstruction project;
- Maintaining debt service coverage ratio at 1.5:1;
- Maximizing investment earnings through effective cash flow management; and
- Evaluating and implementing new billing and accounting software.

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY
APPROVED POSITIONS 2019 - 2021

REGULAR EMPLOYEES (FTE)	2019 BUDGET	2020 BUDGET	2021 BUDGET
ADMINISTRATION			
General Manager	1.0	1.0	1.0
Director of Administrative Services	1.0	1.0	1.0
Finance Manager	-	1.0	1.0
Engineering Manager	1.0	1.0	1.0
Senior Project Manager	1.0	1.0	1.0
Operations/Maintenance Manager	1.0	1.0	1.0
Special Projects Manager	-	1.0	1.0
Customer Service Manager	1.0	1.0	1.0
Maintenance Superintendent	1.0	1.0	1.0
Purchasing and Administrative Specialist	1.0	1.0	1.0
Water Resources Engineer	1.0	1.0	1.0
Utilities Engineer	1.0	1.0	1.0
Construction Inspection Supervisor	1.0	1.0	1.0
IT Administrator	1.0	1.0	1.0
Human Resources Generalist	1.0	1.0	1.0
Accountant	1.0	1.0	1.0
Administrative Assistant	1.0	1.0	1.0
Administrative Assistant	1.0	1.0	1.0
Accounting Specialist	1.0	1.0	1.0
Customer Service/Billing Specialist	1.0	1.0	1.0
Customer Service Specialist	1.0	1.0	1.0
Maintenance Technician II	1.0	1.0	1.0
Maintenance Technician II	1.0	1.0	1.0
Maintenance Technician II	1.0	1.0	1.0
Construction Inspector I	1.0	1.0	1.0
GIS Specialist	1.0	1.0	1.0
WATER OPERATIONS			
Field Superintendent	1.0	1.0	1.0
Chief Water Plant Operator	-	-	-
Lead Field Technician	1.0	1.0	1.0
Lead Field Technician	1.0	1.0	1.0
Field Technician I		1.0	1.0
Field Technician I	1.0	1.0	1.0
Field Technician I	1.0	1.0	1.0
Field Technician III	1.0	1.0	1.0
Cross-connection/Backflow Control Specialist	1.0	1.0	1.0
Cross-connection/Backflow Control Specialist	1.0	1.0	1.0
WASTEWATER OPERATIONS			
Wastewater Plant Superintendent	1.0	1.0	1.0
Wastewater Plant Operator I	1.0	1.0	1.0
Wastewater Plant Operator II	1.0	1.0	1.0
Wastewater Plant Operator II	1.0	1.0	1.0
Wastewater Lab Technician	1.0	1.0	1.0
Pretreatment Coordinator	1.0	-	-
Totals	38.0	40.0	40.0

FINANCIAL SUMMARIES AND NOTES



Water Line Encasement at Green Acres Tributary Project

12. Board Summary Forecasted 2020 Combined Operations

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY
 BOARD SUMMARY
 2021 BUDGET AS PROPOSED
 WITH 2019 ACTUAL AND 2020 ESTIMATED
 For the Years Ending December, 31

	ACTUAL 2019	BUDGET 2020	ACTUAL 9/30/2020	ESTIMATED 2020	BUDGET 2021
BEGINNING FUNDS AVAILABLE	\$43,346,172	\$ 31,721,113	\$ 33,915,677	\$ 33,915,677	\$ 15,165,790
REVENUES					
Operating Revenues					
Water revenue	13,168,781	13,414,641	11,607,130	13,563,844	13,787,748
Sewer revenue	6,039,682	6,324,161	4,687,452	6,249,936	6,541,835
Fees for services	1,276,567	824,763	419,595	559,460	799,813
Water plant revenue	79,796	-	-	-	-
Other revenue	332,786	203,670	478,688	478,688	210,321
Total operating revenues	20,897,612	20,767,235	17,192,865	20,851,928	21,339,717
Non-operating Revenues					
Tap and extraterritorial fees	7,123,625	5,121,569	2,910,259	3,880,345	5,046,834
Net investment income	800,739	475,000	247,062	329,416	300,000
In-kind contributions	605,300	-	-	-	-
Settlement revenue	850,000	-	-	-	-
Interest subsidy	1,795,107	-	-	-	-
Total non-operating revenues	11,174,771	5,596,569	3,157,321	4,209,761	5,346,834
Total revenues	32,072,383	26,363,804	20,350,186	25,061,690	26,686,551
Total funds available	75,418,555	58,084,917	54,265,863	58,977,367	41,852,341
EXPENDITURES					
Operating Expenses					
Salaries and benefits	4,094,909	4,524,487	3,183,034	4,244,045	4,536,667
Office expense	251,613	319,529	225,477	300,636	458,501
Professional services	897,033	1,007,482	397,793	530,391	861,190
Repairs and maintenance	2,819,013	1,200,070	966,246	1,200,073	1,193,522
Insurance	154,712	214,343	146,035	194,713	223,914
Operational	2,520,022	3,935,571	3,021,519	4,028,692	4,522,464
Contractual services	225,250	226,341	111,793	149,057	141,235
Utilities	1,149,678	1,168,254	809,310	1,079,080	1,224,194
Bad debt expense	-	500	1,355	1,807	500
Other supplies and expense	9,629	14,400	9,290	12,387	12,700
Interest and fiscal charges	10,083,849	7,502,399	3,148,049	7,502,399	7,655,334
Contingency	-	400,000	-	-	400,000
Capital projects	19,297,170	25,183,297	14,058,106	24,568,297	11,228,000
Total expenditures	41,502,878	45,696,673	26,078,007	43,811,577	32,458,220
Total expenditures and transfers out requiring appropriation	41,502,878	45,696,673	26,078,007	43,811,577	32,458,220
ENDING FUNDS AVAILABLE	\$ 33,915,677	\$ 12,388,244	\$ 28,187,856	\$ 15,165,790	\$ 9,394,121

13. Board Summary Forecasted 2021 Budget Water Operations

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY
 WATER OPERATIONS
 2021 BUDGET AS PROPOSED
 WITH 2019 ACTUAL AND 2020 ESTIMATED
 For the Years Ending December, 31

ACTUAL 2019	BUDGET 2020	ACTUAL 9/30/2020	ESTIMATED 2020	BUDGET 2021
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REVENUES

Operating revenues				
Water revenue	\$ 13,168,781	\$ 13,414,641	\$ 11,607,130	\$ 13,563,844
Fees for services	966,430	411,440	170,631	227,508
Water plant revenue	79,796	-	-	-
Total operating revenues	<u>14,215,007</u>	<u>13,826,081</u>	<u>11,777,761</u>	<u>13,791,352</u>

EXPENDITURES

Operating expenditures				
Salaries and benefits	2,414,634	2,676,191	1,863,269	2,484,359
Office expense	206,739	241,114	144,220	192,293
Professional services	700,697	801,239	364,903	486,537
Repairs and maintenance	647,412	617,299	562,843	662,202
Insurance	129,862	165,024	106,416	141,888
Operational	2,101,430	3,495,883	2,715,195	3,620,260
Contractual services	82,962	41,309	25,174	33,565
Utilities	607,616	602,579	411,843	549,124
Bad debt expense	-	360	1,355	1,807
Other supplies and expense	7,305	10,368	9,290	12,387
Contingency	-	288,000	-	-
Total operating expenditures	<u>6,898,657</u>	<u>8,939,366</u>	<u>6,204,508</u>	<u>8,184,422</u>

Operating Income (not including depreciation)	7,316,350	4,886,715	5,573,253	5,606,930	4,806,542
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Non-operating revenues				
Tap and extraterritorial fees	5,303,629	3,767,325	2,202,531	2,936,708
Other revenue	332,786	200,850	478,688	478,688
Net investment income	488,451	342,000	150,708	200,944
In-kind contributions	605,300	-	-	-
Settlement revenue	850,000	-	-	-
Interest subsidy	1,795,107	-	-	-
Total non-operating revenues	<u>9,375,273</u>	<u>4,310,175</u>	<u>2,831,927</u>	<u>3,616,340</u>

Non-operating expenses				
Debt Service	9,497,999	6,916,549	2,764,518	6,991,024
Capital Outlay	18,917,111	22,456,497	13,807,025	24,233,522
Total non-operating Expenses	<u>28,415,110</u>	<u>29,373,046</u>	<u>16,571,543</u>	<u>31,224,547</u>

Change In Net Position	\$ (11,723,487)	\$ (20,176,156)	\$ (8,166,363)	\$ (22,001,277)	\$ (5,908,459)
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14. Board Summary Forecasted 2021 Sewer Operations

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY
 SEWER OPERATIONS
 2021 BUDGET AS PROPOSED
 WITH 2019 ACTUAL AND 2020 ESTIMATED
 For the Years Ending December, 31

ACTUAL 2019	BUDGET 2020	ACTUAL 9/30/2020	ESTIMATED 2020	BUDGET 2021
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REVENUES

Operating revenues				
Sewer revenue	\$ 6,039,682	\$ 6,324,161	\$ 4,687,452	\$ 6,249,936
Fees for services	310,137	413,323	248,964	331,952
Total operating revenues	<u>6,349,819</u>	<u>6,737,484</u>	<u>4,936,416</u>	<u>6,581,888</u>

EXPENDITURES

Operating expenditures				
Salaries and benefits	1,680,275	1,848,296	1,319,765	1,759,687
Office expense	44,874	78,415	81,257	108,343
Professional services	196,336	206,243	32,890	43,853
Repairs and maintenance	2,171,601	582,771	403,403	537,871
Insurance	24,850	49,319	39,619	52,825
Operational	418,592	439,688	306,324	408,432
Contractual services	142,288	185,032	86,619	115,492
Utilities	542,062	565,675	397,467	529,956
Bad debt expense	-	140	-	-
Other supplies and expense	2,324	4,032	-	-
Contingency	-	112,000	-	-
Total operating expenditures	<u>5,223,202</u>	<u>4,071,611</u>	<u>2,667,344</u>	<u>3,556,459</u>
Operating Income (not including depreciation)	1,126,617	2,665,873	2,269,072	3,025,429
Non-operating revenues				-
Tap and extraterritorial fees	1,819,996	1,354,244	707,728	943,637
Other revenue	-	2,820	-	-
Net investment income	312,288	133,000	96,354	128,472
In-kind contributions	-	-	-	-
Settlement revenue	-	-	-	-
Interest subsidy	-	-	-	-
Total non-operating revenues	<u>2,132,284</u>	<u>1,490,064</u>	<u>804,082</u>	<u>1,072,110</u>
Non-operating expenses				-
Debt Service	585,850	585,850	383,531	511,375
Capital Outlay	380,059	2,726,800	251,081	334,775
Total Non-Operating Expenses	<u>965,909</u>	<u>3,312,650</u>	<u>634,612</u>	<u>846,149</u>
Change In Net Position	<u>\$ 2,292,992</u>	<u>\$ 843,287</u>	<u>\$ 2,438,542</u>	<u>\$ 3,251,390</u>
				<u>\$ 136,789</u>

15. Budget Notes

15.1 Revenue

15.1.1 Water Charges

This item includes charges for providing water to residential and commercial customers, a water investment fee, hydrant meter water, and water service fees.

15.1.2 Sewer Charges

Sewer charges include the rates charged to wastewater customers for collecting wastewater, moving it to the LTCWRF, and treating it.

15.1.3 Fire Lines

This item includes the charge to maintain enough water in the system for fire protection standby systems (i.e., sprinkler systems) at all times.

15.1.4 Irrigation

Irrigation includes irrigation water charges for those customers who have separate irrigation meters.

15.1.5 Fees for Services

Fees includes items such as the PID equivalency fee paid by Cottonwood, labor service call fees, hydrant meter rentals, meter inspections, radio read meter fees, and miscellaneous revenue.

15.1.6 RO Plant Revenue

This item reflects the budgeted expense reimbursement to be received from ACWWA's partner in the Joint Water Purification Plant (JWPP). The offsetting expenses are budgeted under the Operational expense category.

15.1.7 Interest Income

Interest income is the amount earned by ACWWA on funds held with Bank of Oklahoma (BOK), and in Colotrust and CSAFE investments.

15.1.8 Miscellaneous Revenue

This item is primarily comprised of water system payments from Chaparral, ditch company distributions, and revenue from fire flow testing.

15.1.9 Tap Fees and Contributions

Fees/contributions include fees for water and sewer tap sales in ACWWA service area, water tap sales in Elkhorn, and sewer taps sales in the Cottonwood district. This also includes the extraterritorial fees charged to Elkhorn Ranch customers.

Tap sales are estimated to be 120 in 2021, with Cottonwood wastewater tap sales projected at 25 SFE.

15.2 Expenses

15.2.1 Office Expenses

Office expense includes items such as office supplies and equipment, postage, association dues, unemployment insurance, training and education, and dues and subscriptions.

15.2.2 Salaries and Benefits Expenses

This item includes salaries, health benefits, retirement contributions, tuition reimbursement, service awards and payroll taxes.

15.2.3 Insurance Expenses

This includes insurance for ACWWA's property, plant and equipment as well as workers' compensation insurance.

15.2.4 Legal Fees

Legal fees expense comprises amounts paid to ACWWA's retained counsel, employment counsel, and for water rights protection legal services.

15.2.5 Professional Fees

These are fees paid to outside consultants to perform work that ACWWA does not have either staff with the technical expertise or the capacity to do the work. The primary driver of professional services is engineering fees for the various ACWWA projects. Audit fees are also included here.

15.2.6 Repairs and Maintenance

Repairs and Maintenance includes equipment rental, buildings and equipment maintenance, landscaping, and vehicle expense – fuel, license and registrations, tires, repairs and maintenance. The highest cost items are repairs and maintenance to the water and wastewater systems – line break repairs, valves, meter repair, pumps, etc. As the systems age, it is normal for repairs and maintenance costs to increase.

15.2.7 Operational

This item includes the cost of water from ECCV, the JWPP expenses allocated to ACWWA's partner in the plant, treatment chemicals, safety expenses, ditch assessments, and staff uniforms.

15.2.8 Utilities

This item includes water, sewer, electricity, gas, telephone, and internet service.

15.2.9 Contract Services

This is the cost for hauling sludge from the wastewater treatment plant.

15.2.10 Bad Debt

This is an estimate for writing off uncollectible accounts.

15.2.11 Other Supplies and Expenses

This line includes Board of Directors expense.

15.2.12 General Contingency

This item provides for unanticipated expenses. While every effort is made to accurately predict costs for the upcoming budget year, it is possible that major water or sewer line breaks or costly equipment failures could occur, and these will be covered by contingency funds.

15.2.13 Debt Service

This line includes principal and interest payments on outstanding bond issues.

15.2.14 Capital Outlay

This item includes budgeted capital projects and equipment.

16. Budgeted 2021 Capital Outlay

Arapahoe County Water & Wastewater Authority

Capital Improvement Program Budget

For the year ending December 31, 2021

Project	2021 Budgeted Cost
Priority 1 Projects	
ACWWA Flow Water Rights Adjudication costs	\$ 1,250,000
Water System asset replacement	400,000
12" and 18" Isolation Valve Replacement (Arapahoe Road)	80,000
Wells asset replacement	500,000
Condition Assessment of Wells	14,000
Asset Management	50,000
ACWWA Flow Renew and Replace	100,000
Water system upgrades (PRV's, air relief, large diam valves, hydrants)	300,000
Lone Tree VFD's Replacement	181,000
Lone Tree Process Pump Replacement (Service Water Jockey Pump, WAS Pump Rebuild, Filter Feed Rebuild/Replacement)	24,000
High-zone conversion - re-balance supply distribution	100,000
Water Meters - new development	45,000
Transmission Main - Arapahoe Road to Chaparral Storage Tank	150,000
Master Plan Additional Scope for critical customers evaluation	50,000
Administration Building	1,500,000
Chambers Pump Station and Piping	150,000
Generator Natural Gas Conversion Study	20,000
Lone Tree (Centrifuge feed pump spare parts)	17,000
Critical repair parts for ACWWA Infrastructure	30,000
Capital Equipment Outlay (Lone Tree pH meter, Autoclave)	15,000
Accounting/Billing Software System Upgrade	100,000
Hypochlorite Tanks Replacement	29,000
Total Priority 1 Capital	\$ 5,105,000
Priority 2 Projects	
Lone Tree Redundant Centrifuge and Spare Parts	150,000
ACWWA Water Meter Transmitter Upgrade Project	60,000
Peoria Lift Station Evaluation	200,000
ACJC Washer Compactor	150,000
Wellsite landscape improvements/erosion control	40,000
New Trimble R-1 GPS Device	12,000
Total Priority 2 Capital	\$ 612,000

Priority 3 Projects		
Capital equipment outlay (Lone Tree - Scissor lift, Big joe replace, MOT Equip., Car ports, Pump shop mach. tools, Welder)	\$	82,500
Lone Tree - SCFM Ammonia Controller/Small Blower		150,000
Lone Tree - Demo Building 3		25,000
Administration building improvements (annual)		5,000
Total Priority 3 Capital	\$	262,500
 Total 2021 Budgeted Capital Expenditures		
\$ 5,979,500		
 Carry Forward Projects		
SCADA Improvements	\$	187,500
Clarifier/BNR		2,206,000
LTCWRF Landia Mixers		100,000
Chambers Pump Station and Piping		68,750
Chloramine Conversion		30,000
VCC Lift Station		500,000
South Platte Storage		1,800,000
Chaparral Tank Site - Irrigation, Landscape, and Drainage project		95,000
Water Meter Replacement		145,000
Water and Wastewater Master Plan		96,250
4 MG Tank Site – Irrigation, landscape, and drainage project		20,000
Total Carry Forward	\$	5,248,500
 Grand Total 2021 Budgeted Capital Expenditures		
\$ 11,228,000		

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY

SCHEDULE OF DEBT SERVICE REQUIREMENTS TO MATURITY

December 31, 2021

17. Schedule of Debt Service Requirements to Maturity

GLOSSARY AND ACRONYMS



18. Glossary of Terms and Acronyms

- Accrual Basis – The basis of accounting under which revenues are recorded when earned and measurable expenditures are recorded as soon as they result in liabilities for benefits received.
- ACWWA – Arapahoe County Water and Wastewater Authority
- ACWWA Flow Project – A renewable water source project.
- Adopted Budget – ACWWA’s adopted budget is the fiscal year’s financial plan that details the Governing Board approved revenues and expenditures.
- Alternate Water Supply – The Alternate Water Supply is a search for new methods to meet current and projected demands for water. These may include aquifer storage and recovery, wastewater reuse projects and the acquisition of water through the purchase of water rights.
- Amendment – An amendment is a change to an adopted budget. It can increase or decrease a fund total.
- Appropriation – An authorization granted by the Governing Board to make expenditures and to incur obligations for specific purposes.
- Aquifer – An aquifer is an underground bed or layer of earth, gravel or porous stone that yields water.
- Aquifer Storage and Recovery – This is the practice of injecting surplus water into an aquifer through wells and then pumping it out as needed.
- Assets – Property owned by ACWWA which has monetary value.
- Audit – The examination of documents, records, reports, systems of internal control, accounting and financial procedures, and other evidence for the purpose of ascertaining fair presentation of financial statements, determining propriety, legality and accuracy of transactions.
- Balances budget - one in which the budget has sufficient projected revenues and available resources to equal anticipated expenditures.
- Bond – A written promise, generally under seal, to pay a specified sum of money, called the face value or principal amount, at a fixed time in the future, called the date of maturity, and carrying interest, usually payable periodically.
- Budget – A resource allocation plan for the accomplishment of programs related to established objectives and goals within a definite period.
- Budget Message – The opening section of the budget, which provides the reader with a general summary, and description of the most important aspects of the budget, changes from the current and previous years, and the views and recommendations of management.

- Capital Improvement Plan (CIP) – A plan for capital expenditures to be incurred each year over a fixed period of years to meet the capital needs of ACWWA.
- Capital Outlay – Expenditures which result in the acquisition of or addition to fixed assets. These generally consist of machinery and equipment, furniture and fixtures costing more than \$5,000 with a useful life of more than one year.
- Capital Project – Expenditures which result in the construction of or major improvements to ACWWA's buildings and infrastructure; generally, consists of projects costing more than \$5,000 and lasting more than three years.
- Cash Basis – The basis of accounting under which revenues are recorded when received in cash and expenditures are recorded when paid.
- CRS – Colorado Revised Statutes
- CWS – Cottonwood Water and Sanitation District
- Debt – An obligation resulting from the borrowing of money or from the purchase of goods and services.
- Debt Service – Cash outlays in the form of debt principal payments, periodic interest payments and related services charges for debt incurred in prior periods.
- Deficit – The excess of expenditures over revenues during a fiscal year.
- Department – An organizational unit such as Water or Wastewater.
- Depreciation – The expiration in the service life of an asset generally attributable to wear and tear through use, lapse of time or obsolescence. Depreciation is generally not budgeted; however, it is accounted for on the financial statements.
- Disbursement – A cash payment for goods or services procured by ACWWA.
- Enterprise – An entity that qualifies under the Taxpayer's Bill of Rights (TABOR) as being a government-owned business authorized to issue its own revenue bonds and receiving fewer than 10 percent of its annual revenue in grants from all Colorado state and local governments combined.
- Enterprise Fund – A fund established to finance and account for the acquisition, operation, and maintenance of governmental facilities and services, which are entirely or predominantly self-supporting, by user charges.
- Expenditure – Under the accrual basis or modified accrual basis, this term designates the cost of goods delivered or services rendered, whether paid or unpaid. This expression is generally used for governmental type funds.
- Expenses – Charges incurred, whether paid or unpaid for operation, maintenance, and interest, and other charges, which are presumed to benefit the current fiscal period. This expression is generally used for proprietary type funds such as enterprises, trust and agencies.
- Fiscal period – A period of time usually consisting of twelve months. At the end of the fiscal period a governmental unit determines its financial position and the results of its operations. ACWWA's fiscal period is January 1 to December 31.

- FTE – An FTE is a “Full-Time Equivalent” which is equivalent to one full-time employee who works 40 hours per week for 52 weeks, for a total of 2,080 work hours.
- Fund – A self-balancing accounting entity segregated to carry on specific activities or attain certain objectives in accordance with special regulations, restriction or limitation such as Water and Wastewater.
- Fund Balance – Resources remaining from prior years, which are available to be budgeted in the current year.
- FY – Fiscal Year
- Generally Accepted Accounting Principles (GAAP) – Generally Accepted Accounting Principles are uniform minimum standards and guidelines for financial accounting and reporting. Currently, the Financial Accounting Standards Board (FASB), the Governmental Accounting Standards Board (GASB) and the Federal Accounting Standards Advisory are authorized to establish these principles.
- Gross Revenue – All income and revenues directly or indirectly derived from the operation and use of the System, or any part thereof.
- IGA – Intergovernmental Agreement
- IWSD – Inverness Water and Sanitation District
- Internal Controls – A plan of organization under which employee’s duties are so arranged and records and procedures so designed as to make it possible to protect and exercise effective accounting control over assets, liabilities, revenues and expenditures.
- JWPP – Joint Water Purification Plant
- Long Term Debt – Debt that is legally payable from revenues and backed by the credit of ACWWA.
- MGD – Million gallons per day
- Operating Budget – A budget that applies to all other outlays other than capital projects.
- Operation and Maintenance (O&M) Expenses – All reasonable and necessary current expenses paid or accrued for operating, maintaining, and repairing the System.
- Performance Measures – A performance measure is a specific quantitative measure of work performed, outputs and inputs.
- PID – Public Improvement District. Specifically, the Arapahoe County Water and Wastewater Public Improvement District.
- Program – A group of related activities performed by one or more organizational units for the purpose of accomplishing a function for which the government is responsible.

- Pump Stations – A pump station is a manmade structure that uses a pump to transfer water from one location to another.
- Refunding Bonds – Bonds issued solely to retire bonds already outstanding.
- Reserve – An account which records a portion of the fund balance which must be segregated for some specific use and which is, therefore, not available for other expenditures.
- Resolution – A special or temporary order or decision of the Board of Directors acting as a legislative body. A resolution and a motion have the same force and effect.
- Retained Earnings – The cumulative earnings of an operation that generally have been invested in property, plant and equipment or current assets.
- Revenue – Additions to assets, which do not increase any liability, do not represent the recovery of expenditure, and do not represent the cancellation of certain liabilities.
- Revenue Bonds – Bonds whose principal and interest are payable exclusively from earnings of a public enterprise.
- SDWA – Safe Drinking Water Act
- Surplus – The excess of the assets of a fund over its liabilities or its resources over its disbursements.
- System – All water and wastewater facilities and properties, now owned or hereafter acquired, whether situated within or outside of ACWWA's boundaries.
- TBD – To be determined
- Tap fees – the cost of connecting a home or business to the water and/or wastewater systems.
- Tap equivalent – a mathematical calculation to convert disparate numbers of water and wastewater taps into a single unit of measurement.
- Taxpayer's Bill of Rights (T.A.B.O.R.) – An amendment to the constitution of Colorado enacted in 1992 that limits the powers of governments in Colorado to levy taxes and incur debt. It also sets forth revenue limits for non-enterprise systems. TABOR is found at Article X, Section 20 of the Colorado Constitution.

FPP.1. APPENDIX



FPP.2. Financial Policies and Procedures

FPP.2.1 Basis of Budgeting/Accounting

For budgetary reporting purposes, ACWWA uses the modified accrual basis of accounting and budgeting for its one general fund. For financial reporting purposes, ACWWA utilizes the full accrual basis of accounting.

Under the modified accrual basis of accounting, revenues are recognized when they become measurable and available. “Measurable” means the amount of the transaction can be determined and “available” means collectible with the current period or soon enough thereafter to be used to pay liabilities of the current period. Expenditures are recognized in the accounting period in which the liability is incurred. Non-cash expense items such as depreciation expense for fixed assets and accrued compensated absences are excluded from the budget. All annual appropriations lapse at the end of the fiscal year.

ACWWA operates under one fund for budgetary purposes. However, ACWWA’s departments are categorized in service lines – water and wastewater – for budgetary and financial reporting purposes.

The costs of vacation and sick leave benefits (accrued compensated absences) are expended when payments are made to employees. The liability for all accrued and vested vacation and sick pay benefits is recorded on the balance sheet.

FPP.2.2 Revenue Policies

ACWWA estimates revenues conservatively using an objective and analytical approach employing techniques such as reviewing historical trends, current information, and economic indicators to ensure consistency, reliability and reasonableness. ACWWA utilizes a financial model that allows future revenue projections and that can be updated annually to reflect changing conditions. ACWWA’s long-term financial plan assesses long-term financial implications of current and proposed policies and programs. It also serves as a tool to allow staff to deal with financial issues proactively.

- ACWWA shall maintain a diversified and stable revenue base. Existing and potential revenue sources shall be reviewed annually for stability, equity efficiency and capacity to finance future operations.
- An objective, analytical process that recognizes the sensitivity of each revenue source shall be used to estimate revenues.
- Whenever authorized and appropriate, user fees and charges shall be established to recover the full costs of all programs and services.

FPP.2.3 Rates and Charges

Rates and charges are the primary component of ACWWA's revenue. User fees fund the services provided to ACWWA's customers. ACWWA utilizes a cost recovery concept to determine how costs are allocated to classes of customers. The full cost of providing various services is used as the basis for setting rates and fees. The full cost method incorporates both direct and indirect costs, including operations and maintenance, overhead, and charges for the use of capital facilities. Examples of ACWWA's overhead include billing, payroll processing, accounting and administrative services, computer support, office supplies, and other central administrative charges.

ACWWA's Board of Directors established the following guidelines for the user rate and charge setting process:

- Rates and charges are established utilizing a generally accepted cost recovery methodology that is consistent and legally defendable using the following approaches: revenue requirement analysis cost of service analysis, and rate design analysis. ACWWA conducted a rate study in the third quarter of 2015, which is the basis for 2021 rates.
- Rate design shall be reflective of ACWWA's Board of Directors' rate setting objectives.
- Rates shall be set at a level to collect more reliable revenues through a combination of system access charges and low to medium users' commodity rates to meet ACWWA's revenue requirements.
- Rates and charges will be reviewed and updated annually based on factors such as the impact of inflation, other cost increases, and the adequacy of coverage of costs.
- ACWWA must produce revenues sufficient to pay:
 - a minimum of 1.25 times the Annual Debt Service Requirements as required to meet debt coverage covenants of ACWWA's bonds; and
 - the amounts required to be deposited in any reserve or contingency fund created for the payment and security of obligations.
- ACWWA will adjust rates and charges as the Board deems necessary so that net system revenues from such adjusted rates and charges will be sufficient at all times to meet the requirements.

FPP.2.4 Recognition of Revenues

Revenues are recorded when earned. Customers' meters are read, and bills are prepared monthly based on billing cycles.

FPP.2.5 Expenditure Policy

ACWWA's expenditures reflect the commitment of the Board of Directors and staff to serve present and future customers reliably. The Board and staff believe that prudent expenditure planning and accountability will ensure fiscal stability. Expenditures are projected conservatively using an objective and analytical approach and employing certain techniques such as the review

of historical trends, current information, and economic indicators to ensure consistency, reliability, and reasonableness. ACWWA's financial model allows for future projections of capital and operating expenditures.

FPP.2.6 Disbursements

Disbursement of Authority funds must be for a legitimate purpose and within budgetary limits.

Payment for Authority contracts and purchase orders are contingent on evidence of receipt or acceptance of the specific deliverables.

FPP.2.7 Maintenance of Capital Assets

Maintaining a reliable transmission and distribution system and a sustained capital program are not possible without reliable funding sources. Prudent financial planning is critical to an effective capital improvement program. ACWWA uses a combination of debt financing and "pay as you go" to fund the capital improvement program and maintenance of capital assets. The annual capital improvements cost is estimated by staff and is included in the amount to be funded from rates and charges.

Within the resources available each fiscal year, ACWWA will strive to maintain capital assets and infrastructure at a satisfactory level to protect its investment, to minimize future replacement and maintenance costs, and to maintain service levels.

FPP.2.8 Review of Service Policy

These expenditure policies are used by staff to prompt review of services to see if they are being provided as effectively and efficiently as possible. ACWWA's review of service policy is designed to accomplish the following:

- Encourage greater efficiency and effectiveness of the delivery of services by sharing resources and coordinating with other public and private organization through partnerships;
- Where possible, utilize technology and productivity advancements that will help reduce or avoid increasing personnel costs;
- Control personnel costs as a proportion of total budget by the more effective use of resources.

FPP.2.9 Cash Management Policies and Practices

ACWWA's cash management policies strive to:

- maximize ACWWA's cash position;
- accelerate collections and control disbursements to optimize cash availability;
- meet its financial obligations on a timely basis in order to maintain public trust and productive relations with employees, suppliers, and contractors;

- develop monthly cash flow projections to help formulate investment strategies for the most effective use of resources;
- manage funds in a prudent and diligent manner that meets the criteria of legality, safety, liquidity and yield, in that order of importance.

FPP.2.10 Debt Financing

ACWWA will use debt financing when it is judged to be appropriate based on the long-term capital needs of ACWWA, and the capacity to repay the indebtedness has been evaluated in light of all sources and uses of cash.

ACWWA will only incur long-term debt for the financing of capital improvements that are not expected to recur and are long-lived. Conversely, if the capital requirements are recurring, of relatively small scale or are for short-lived improvements, the costs of these improvements will be paid from current revenues.

FPP.2.11 Reserve Funds

ACWWA maintains several reserve funds. In partnership with Inverness Water and Sanitation District (IWSD), maintains a Repair and Replacement Reserve for the Wastewater Treatment Plant of which ACWWA contributes 69.44% and IWSD contributes 30.55%. ACWWA currently contributes \$300,924 to this reserve annually. ACWWA and CWSD maintain a reserve fund for the JWPP to which ACWWA contributes \$12,667 annually. ACWWA is also required by bond covenants to maintain debt service reserves of \$550,000. Additionally, ACWWA established board-designated reserve funds in 2017, including an operating, rate stabilization, and emergency capital reserve funds.

FPP.2.12 Revenue Bonds

ACWWA does not collect taxes and cannot issue General Obligation Bonds. ACWWA may issue Revenue Bonds secured by a pledge of revenues. Revenue Bonds are limited liability obligations that pledge net revenues of ACWWA to debt service. The net revenue pledge is after payment of all operating costs. The financial markets require coverage ratios of the pledged revenue stream and a covenant to levy rates and fees sufficient to produce net income at some level in excess of debt service.

There may be an additional test required to demonstrate that future revenues will be sufficient to maintain debt service coverage levels after additional bonds are issued. ACWWA will strive to exceed the coverage ratio required by the debt covenants. Annual adjustments to ACWWA's rate structure may be necessary to maintain these coverage ratios.

The credit rating of Revenue Bonds is based on the ability of ACWWA's existing rates to provide sufficient net income to pay debt service, as well as the perceived willingness of ACWWA's Board of Directors to raise rates and fees in accordance with its bond covenants. Past performance also plays a role in evaluating the credit quality of Revenue Bonds, as does the diversity of the customer base.

FPP.2.13 Capital Leases

Capital lease and installment sale agreements shall be considered as an alternative to long-term debt. Although these forms of alternative financing are subject to annual appropriation, they shall be treated as long-term debt until maturity.

ACWWA currently has no capital lease obligations.

FPP.2.14 Long-Term Debt

Long-term debt is defined as bonded indebtedness whose maturity is at least ten years from issue date.

When developing funding strategies for projects; ACWWA will first consider revenues unique to such projects, e.g.; water funds for water projects, and wastewater funds for wastewater projects.

Projects will be funded with Revenue Bonds only if no other revenue source can be utilized.

When appropriate, ACWWA will use long-term debt financing to: achieve an equitable allocation of capital costs/charges between current and future system users, to provide more manageable rates in the near and medium term, and to minimize rate volatility.

For growth-related projects, debt financing will be utilized as needed to better match the cost of anticipated facility needs with timing of expected new connections to the system and spread the costs evenly over time.

Every effort will be made to schedule principal and interest payments so as to avoid fluctuations in debt service requirements and related fluctuations in user fees. Because debt financing involves long-term commitments, the projects that are financed through debt financing will only be those that have a useful life at least equal to the debt amortization period. Therefore, debt financing shall be used only for capital expenditures and not for addressing maintenance items.

A rate review will be conducted when appropriate to ensure predictable and affordable changes to utility system rates. ACWWA will maintain rates to confirm that it meets bond coverage requirements. Exceptions to this strategy may be made by the Governing Board for projects that are mandated by judicial or regulatory bodies, or for emergency situations.

FPP.2.15 Short-Term Debt

User fees and tap fees should support needed capital improvements on a pay-as-you-go basis to the greatest extent possible. In the event short-term debt financing is required, lease-purchases, operating leases or other debt instruments may be used as a short-term (less than ten years) method of borrowing. This financing may be used for costs such as the purchase of fleet equipment, the renovation or reconstruction of capital assets, specialized types of equipment purchases, communications, and data transmission systems.

ACWWA may utilize short-term borrowing to serve as a bridge for anticipated revenues, construction financing or future bonding capacity.

All proposals for short-term financing will be evaluated on a case-by-case basis with findings presented to the Board prior to authorizing financing. Examples of issues to be addressed in the case-by-case analysis may include, but not necessarily be limited to the following:

- The extent to which the proposed improvement(s) either (a) extend the useful life of the facility(s) by greater than five years or (b) add to the long-term value of the underlying asset by an amount equal to or in excess of the cost of the improvement. Improvements may be one project or a series of projects, when performed as a package, extend the useful life by the required minimum.
- The extent to which a permanent, ongoing additional maintenance commitment is required in order to maintain the value and utility of the financed improvements during the time period in which the financing is outstanding.
- The extent to which an improvement(s) provides a long-term solution to a problem or effectively arrests deterioration which might lead to structural failure, beyond which the process should not have to be repeated if there is appropriate preventative maintenance.
- The extent to which financing spreads the cost of the improvements between present and future users.

FPP.2.16 Debt Authorizations

All long and short-term debt shall require Board authorization prior to issuance. ACWWA has no plans to issue new debt in 2021.

FPP.2.16.1 Current Debt Outstanding

In 2006, ACWWA issued \$22,940,000 in Revenue Refunding Bonds. The proceeds from the 2006 Series Bonds were used to refund the Water and Wastewater Revenue Variable Rate Refunding and Improvement Bonds, Series 2003A and the Taxable/Tax-Exempt Water and Wastewater Revenue Variable Rate Refunding Bonds, Series 2003B. The 2006 Series Bonds were refunded on October 4, 2016 by the Series 2016 Water and Wastewater Revenue Refunding Bonds in the amount of \$16,475,000 to take advantage of lower interest rates.

In 2007, ACWWA issued \$18,760,000 in Revenue Refunding Bonds. The proceeds from the 2007 Series Bonds were used to refund the Water and Wastewater Revenue Variable Rate Refunding and Improvement Bonds, Series 2003C and to provide \$10 million of new money to be used for capital projects. The 2007 bonds were refunded on September 7, 2017, in the amount of \$12,720,000.

In 2009, ACWWA issued \$91,545,000 in Taxable Water and Wastewater Revenue Direct Pay Build America Bonds and \$5,625,000 in Water and Wastewater Revenue Bonds. The proceeds from the 2009 Series Bonds were used to purchase a renewable water source, infrastructure, and water storage. This project is identified as the ACWWA Flow Project. In 2012, ACWWA refunded the 2009 Series B Bonds. The 2009 Series A bonds were refunded on October 22, 2019 in the amount of \$71,485,000.

A summary of outstanding debt is as follows:

- Taxable Water and Wastewater Revenue Direct Pay Build America Bonds, Series 2019 Bonds, original amount \$71,485,000; amount outstanding January 1, 2021 - \$69,850,000.
- Water and Wastewater Revenue Bonds, Series 2012 Bonds, original amount \$5,525,000; amount outstanding January 1, 2020 - \$2,280,000.
- Water and Wastewater Revenue Refunding Bonds, Series 2016 Bonds, original amount \$16,475,000; amount outstanding January 1, 2020 - \$14,075,000.
- Water and Wastewater Revenue Refunding Bonds, Series 2017 Bonds, original amount \$12,720,000; amount outstanding January 1, 2020 - \$12,410,000.

FPP.2.16.2 Debt Limits

ACWWA is not legally restricted as to the amount of debt that can be issued.

FPP.2.17 Balanced Budget

Colorado statutes and ACWWA's financial policies require an annual budget that is balanced. A balanced budget is one in which the budget has sufficient projected revenues and available resources to equal anticipated expenditures. Throughout the budget development process, projected revenue estimates are updated and compared against proposed expenditures.

ACWWA has developed a series of revenue and expenditure assumptions, based on current and projected economic indicator, and historical trends. Expenditure and revenue collection history for the last two years and information supplied by various departments were used to determine revenue sources and uses.

FPP.2.18 ACWWA's Funds

ACWWA describes a fund as a self-balancing accounting entity segregated to carry on specific activities or attain certain objectives in accordance with special regulations, restriction or limitation such as water or wastewater.

FPP.2.18.1 Funds Available

ACWWA describes funds available as resources remaining from prior years, which are available to be budgeted in the current year.

FPP.2.18.2 Restricted Cash Funds

Restricted cash funds are those that are legally set aside for a particular purpose and cannot be used for any other purpose. These are funds whose use is not at the discretion of the Board. ACWWA maintains a debt service reserve fund required by bond covenants, and asset replacement reserves for the LTCWRF and the JWPP. In 2018, ACWWA funded two additional restricted project funds for the ECCV Northern Plant Expansion and the JWPP RO Plant reconversion, and these funds remain open.

FPP.2.18.3 Designated Cash Funds

Designated cash funds are general use funds that have been set apart by Board action for a specific purpose. These funds can only be used for those purposes. However, these funds are at the discretion of the Board and can be used for any other purpose by an action of the Board. ACWWA maintains designated funds to provide for an operating reserve, a rate stabilization reserve, an emergency capital reserve, an unrestricted debt reserve, and an asset replacement reserve.

FPP.2.18.4 General Use Cash Fund

General use cash funds are funds that are not restricted or designated. ACWWA maintains a general cash fund to provide cash for operations, debt service, and capital improvements.

FPP.2.18.5 Authority Funds Subject to Appropriation

ACWWA operates as an Enterprise Fund. Enterprise Funds are used to account for operations that are financed and operated in a manner similar to private business enterprises, in that the costs of providing goods or services to the general public are financed through user charges.



Lone Tree Creek Water Resource Facility

Budget Resolution 2020-03

A RESOLUTION SUMMARIZING REVENUES AND EXPENDITURES FOR EACH FUND, ADOPTING A BUDGET, AND APPROPRIATING SUMS OF MONEY TO THE VARIOUS FUNDS IN THE AMOUNTS AND FOR THE PURPOSES SET FORTH HEREIN FOR THE ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY, ARAPAHOE COUNTY, COLORADO, FOR THE CALENDAR YEAR BEGINNING ON THE FIRST DAY OF JANUARY 2021, AND ENDING ON THE LAST DAY OF DECEMBER 2021.

WHEREAS, the proposed 2021 budget has been submitted to the Board of Directors of the Arapahoe County Water and Wastewater Authority for its consideration; and

WHEREAS, upon due and proper notice, published in the Aurora Sentinel and the Douglas County News Press in accordance with the law, and said proposed budget was open for inspection by the public at a designated place, a public hearing was held on November 13, 2018 and interested persons were given the opportunity to file or register any objections to said proposed budget; and

WHEREAS, whatever increases may have been made in the expenditures, like increases were added to the revenues so that the budget remains in balance, as required by law,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY, ARAPAHOE COUNTY, COLORADO:

Section 1: 2021 Budget Revenues. That the estimated revenues for each fund set out in the budget are accepted and approved.

Section 2: 2021 Budget Expenditures. That the estimated expenditures for each fund set out in the budget are accepted and approved.

Section 3: Designation of Ending Fund Balances as Reserves. That pursuant to Const. Colo. Article X, Section 20, the December 31, 2020, ending fund balance of the Operating Fund, the exact amount to be determined as part of the audit of the December 31, 2020 financial statements, is designated as a general reserve for future contingencies.

Section 4: Adoption of Budget for 2021. That the budget as submitted and if amended, then as amended, is hereby approved and adopted as the budget of the Arapahoe County Water and Wastewater Authority for calendar year 2021.

Section 5: Fiscal Year Spending Limits. That, being fully informed, the Board finds that the foregoing budget does not result in a violation of any applicable fiscal year spending limitation.

Section 6: Appropriations. That the amounts set forth as expenditures and balances remaining, as specifically allocated in the budget are hereby appropriated from the revenue of each fund, to each fund, for the purposes stated and no other.

Section 7: Discretion: The General Manager may exercise discretion in administration of the Operating Budget to respond to changed circumstances, provided that any modification in excess of \$75,000 receives approval by the Board.

ADOPTED AND APPROVED this 18th day of November 2020.

Dale Lutky
President

ATTEST:

Sheri Santos-Rae
Secretary