

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

2020 Operating and Capital Improvement Budget

November 13, 2019

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2020 Operating and Capital Improvement Budget

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BUDGET MESSAGE



1. Budget Message

November 13, 2019

Board of Directors
Arapahoe County Water and Wastewater Authority

Your management team is pleased to present the Arapahoe County Water and Wastewater Authority (ACWWA) 2020 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 2020.

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 2020. 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 2020 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 to assist staff in the development of this budget. These priorities are:

- Improve Water Quality
- Improve Customer Service/Relations
- Expansion/Growth of Service Area
- Expense Management.

The 2020 budget furthers the Board's priorities as follows:

1. Improve Water Quality

- a. ACWWA has been working to further develop renewable water sources such as the ACWWA Flow Project. Using the ACWWA Flow water supply benefits the overall water quality in the ACWWA system. The 2020 budget provides funding for several critical components of the project:
 - i. ACWWA will continue to acquire the necessary property interests and develop the required agreements to fully utilize this water supply.
 - ii. The continued adjudication of water rights for municipal use. ACWWA has adjudicated approximately 50% of the ACWWA Flow Project water rights. The 2020 budget provides funding for additional adjudication.
 - iii. The purchase of 500 acre-feet of firming storage in the South Platte Basin.
 - iv. Treatment and delivery of 1500 acre-feet of ACWWA Flow water.
- b. In 2020, ACWWA will fund year four of the four-year expansion of East Cherry Creek Valley Water and Sanitation District's (ECCV) of the Northern RO plant, which treats ACWWA Flow water. The result of this project will increase ACWWA's ownership capacity in the plant from 2.25 MGD to 5.25 MGD.
- c. ACWWA will further refine its water quality model to better manage water supplies and improve water quality in 2020. There is funding in the 2020 budget for updates to both the water and wastewater master plans.
- d. The JWPP began operating as a blended RO/microfiltration plant on May 20 of this year. The 2020 budget includes funding for the contract with Jacobs to operate the plant, as well as capital funding for right-sizing pumps, SCADA system upgrades, and other equipment as needed.

2. Improve Customer Service/Relations

- a. ACWWA will continue to focus on customer service in 2020 to ensure that customer issues are addressed promptly and effectively, that we reach out to the community with information, and that we listen to our ratepayers. Staff will be implementing call center software on the existing phone system to improve the customer call experience.
- b. Staff will continue to enhance ACWWA's website to ensure we are able to provide timely, useful, and accurate information to our ratepayers.
- c. Staff plans to purchase and implement new billing and accounting software, which will further improve the customer experience through easier-to-read bills and more streamlined billing processes.

3. Development Review

- a. Over the past several years, staff has evaluated ACWWA's process for new development review, and has streamlined some functions. In 2020, staff will

continue to assess development-related policies and procedures and modify as needed to become more effective.

- b. Staff will continue to reach out to the development community as part of a continuous improvement effort for the processing of new applications for water and wastewater services.

4. Expense Management

- a. ACWWA is in a mode of continuous improvement, and constantly reviews processes, policies and procedures to ensure they meet ACWWA's needs in the most cost-effective manner.
- b. In 2020, ACWWA will continue its preventative maintenance program, which provides for scheduled maintenance of equipment to minimize the risk of failure. Preventative maintenance helps manage costs by reducing the chance of expensive line and system breaks that can interrupt service to ACWWA's rate payers. ACWWA will also be conducting evaluations of asset management software with predictive capabilities that can help staff track asset life to estimate when infrastructure and equipment will need to be replaced.
- c. Ensuring system reliability through the maintenance of ACWWA's infrastructure is essential to avoiding significant service interruptions. The 2020 budget includes several projects to facilitate reliability as well as efficiency:
 - i. inspecting and replacing fire hydrants throughout the system;
 - ii. evaluating and potentially redesigning the VCC lift station controls and mechanical components to help mitigate future risk from flooding.
 - iii. improvements to the Peoria Lift Station to include replacing instrumentation and piping;
 - iv. equipping the third clarifier and BNR at the Lonetree Creek Water Reuse Facility, which will allow staff to perform required maintenance on the existing clarifiers and BNR units;
 - v. deep cleaning and rehabilitation of ACWWA's alluvial wells; and
 - vi. replacement of various mixers at the LTCWRF plant.

The 2020 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 2020, 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 2020 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 2019. The preparation of this document would not have possible without the support and input from all departments.

Respectfully submitted,



Steve Witter, P.E.
General Manager



Kate McRae, CPA
Finance Manager

INTRODUCTION





GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Arapahoe County Water & Wastewater Authority
Colorado**

For the Fiscal Year Beginning

January 1, 2019

Christopher P. Morill

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, 2019.

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)	113
Water Pipeline (in miles)	243
Number of Water Storage Tanks	3
Number of Fire Hydrants	1,908
Number of Valves	7,843
Number of Meters	5,390
Number of Water Supply Wells	26
Number of Booster Stations	3
Number of Lift Stations	3
Number of Manholes	3,094
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.
- **Kenneth Beard**'s conflict form has been filed; he has no conflicts to report.

- **Tom Wood's** conflict form has been filed; he purchased some of ACWWA's 2017 bonds.

4.3 ACWWA's Management Team and Staff

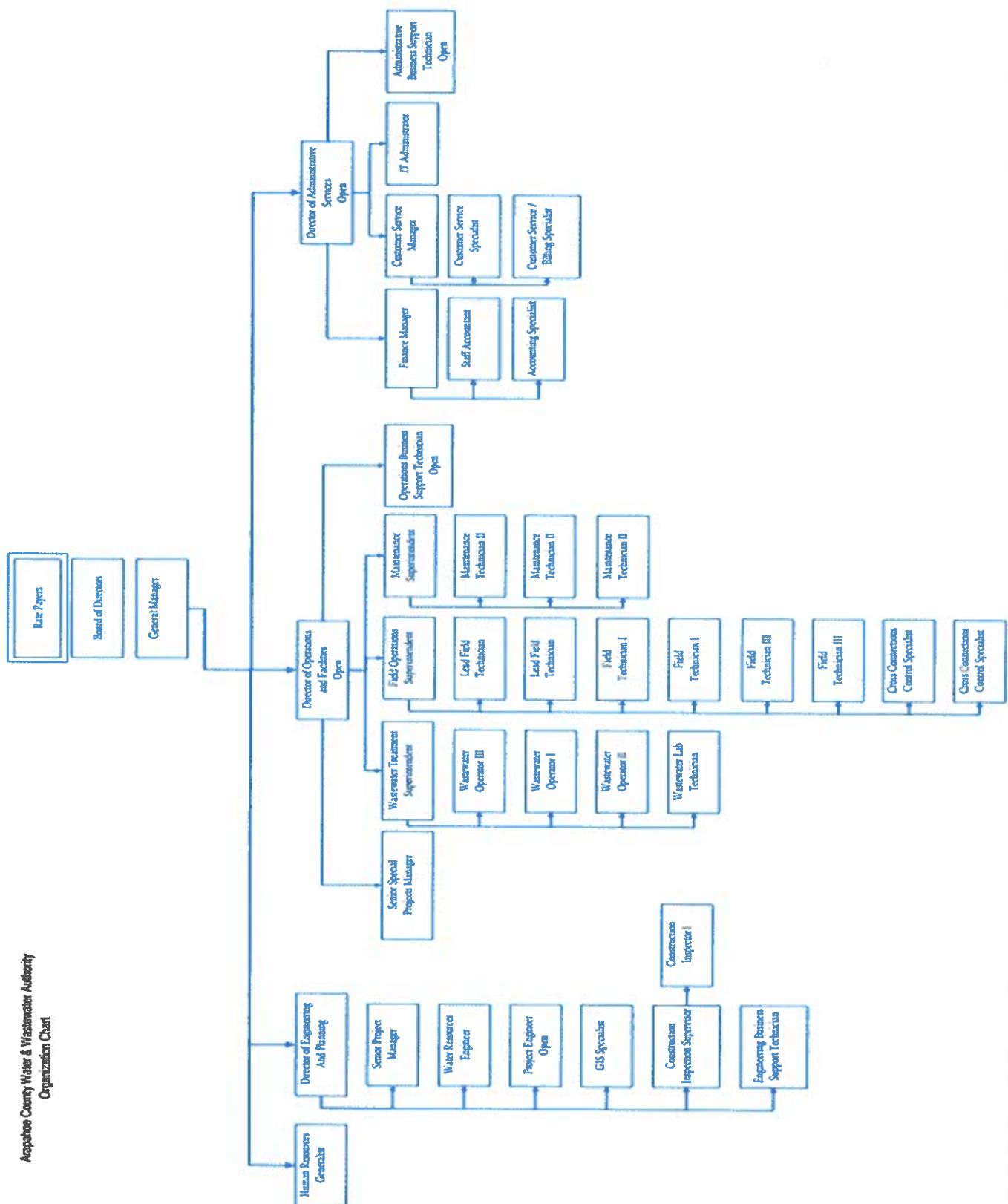
Steven F. Witter, PE, is ACWWA's General Manager. The General Manager is the chief executive officer and administrative head of ACWWA and is responsible for carrying out policies set by the Governing Board and leading ACWWA toward the successful accomplishment of its mission. Kate McRae, CPA, MPA, is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

ACWWA currently has 38 budgeted positions, with two additional positions budgeted in 2020.



Pictured above are the RO membrane racks at the newly-reconfigured Joint Water Purification Plant.

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.



Above is the re-use pump gallery at the Lone Tree Creek Water Reuse Facility

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	Arapahoe County	Percent Change	Denver-Aurora CBSA	Percent Change	Colorado	Percent Change
1970	162,142	--	1,116,226	--	2,207,259	--
1980	293,621	81.1%	1,450,768	30.0%	2,889,735	30.9%
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	572,003	17.2	2,543,482	15.8	5,029,196	16.9
2011	585,069	--	2,601,403	--	5,119,182	--
2012	595,264	1.7%	2,647,835	1.8%	5,189,861	1.4%
2013	606,938	2.0	2,698,037	1.9	5,266,317	1.5
2014	617,498	1.7	2,751,570	2.0	5,345,680	1.5
2015	628,951	1.9	2,809,029	2.1	5,444,871	1.9
2016	637,266	1.3	2,853,972	1.6	5,534,240	1.6
2017	643,257	0.9	2,890,391	1.3	5,609,445	1.4

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

Per Capita Personal Income

Year ⁽¹⁾	Arapahoe County	Denver-Aurora	Colorado	United States
2013	\$49,731	\$51,804	\$47,298	\$44,851
2014	53,297	55,673	50,700	47,058
2015	54,476	56,708	52,133	48,978
2016	55,116	56,712	52,262	49,870
2017	56,642	59,660	55,335	51,885
2018	n/a	n/a	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.

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%.

Industry	2014	2015	2016	2017	2018
Accommodation and Food Services	24,151	25,461	26,161	26,942	26,939
Administrative and Waste Services	27,591	28,314	26,640	27,411	27,622
Agriculture, Forestry, Fishing, Hunting	89	94	94	119	124
Arts, Entertainment and Recreation	5,320	5,347	5,470	6,106	6,331
Construction	17,986	19,107	20,244	21,769	22,805
Educational Services	22,230	22,760	22,930	22,632	22,399
Finance and Insurance	25,921	27,531	28,516	29,159	28,891
Government	13,108	13,194	13,051	13,079	13,373
Health Care and Social Assistance	38,291	41,116	43,035	42,754	43,572
Information	18,305	17,710	17,675	18,136	18,203
Management of Companies/Enterprises	8,092	8,130	7,280	8,661	8,743
Manufacturing	7,827	8,041	8,148	7,891	8,209
Mining	942	925	714	675	683
Non-classifiable	33	22	28	13	30
Other Services	8,541	8,610	8,959	9,316	9,528
Professional and Technical Services	29,153	30,364	31,529	31,878	33,178
Real Estate, Rental and Leasing	5,884	6,234	6,312	6,381	6,681
Retail Trade	33,121	34,414	34,614	34,774	33,916
Transportation and Warehousing	4,817	4,796	5,069	5,138	5,554
Utilities	241	249	260	256	267
Wholesale Trade	13,922	14,180	14,836	15,032	14,741
Total All Industries⁽¹⁾	305,562	316,597	321,566	328,120	331,789

Average Number of Employees within Selected Industries – Arapahoe County

(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 shows the number of individuals employed within selected Denver-Aurora CBSA industries which are covered by unemployment insurance. In 2018, the largest employment sector in the Denver-Aurora CBSA was health care and social assistance (comprising approximately 13.1% of the metro area's work force), followed in order by retail trade, accommodation and food services, professional and technical services, and educational services. For the twelve-month period ending December 31, 2018, total average employment in the Denver-Aurora CBSA increased by approximately 2.6% as compared to the same twelve-month period ending December 31, 2017.

Average Number of Employees within Selected Industries – Arapahoe County

Industry	2014	2015	2016	2017	2018	2019 ⁽²⁾
Accommodation and Food Services	24,151	25,461	26,161	26,942	26,939	26,397
Administrative and Waste Services	27,591	28,314	26,640	27,411	27,622	26,449
Agriculture, Forestry, Fishing, Hunting	89	94	94	119	124	156
Arts, Entertainment and Recreation	5,320	5,347	5,470	6,106	6,331	5,635
Construction	17,986	19,107	20,244	21,769	22,805	22,104
Educational Services	22,230	22,760	22,930	22,632	22,399	22,891
Finance and Insurance	25,921	27,531	28,516	29,159	28,891	25,921
Government	13,108	13,194	13,051	13,079	13,373	13,351
Health Care and Social Assistance	38,291	41,116	43,035	42,754	43,572	44,359
Information	18,305	17,710	17,675	18,136	18,203	19,205
Management of Companies/Enterprises	8,092	8,130	7,280	8,661	8,743	8,756
Manufacturing	7,827	8,041	8,148	7,891	8,209	8,363
Mining	942	925	714	675	683	645
Non-Classifiable	33	22	28	13	30	34
Other Services	8,541	8,610	8,959	9,316	9,528	9,557
Professional and Technical Services	29,153	30,364	31,529	31,878	33,178	33,957
Real Estate, Rental and Leasing	5,884	6,234	6,312	6,381	6,681	6,563
Retail Trade	33,121	34,414	34,614	34,774	33,916	33,161
Transportation and Warehousing	4,817	4,796	5,069	5,138	5,554	5,669
Utilities	241	249	260	256	267	285
Wholesale Trade	13,922	14,180	14,836	15,032	14,741	14,615
Total All Industries⁽¹⁾	<u>305,562</u>	<u>316,597</u>	<u>321,566</u>	<u>328,120</u>	<u>331,789</u>	<u>328,072</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.

(2) Figures are averaged through the first quarter of 2019.

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	<u>Labor Force and Employment</u>						
	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
<u>Month of August</u>							
3.3%	1,659,265	3.3%	3,114,611	3.4%	3.8%	3.3%	1,659,265
2.7	1,691,967	2.6	3,176,175	2.7	3.7	2.7	1,691,967

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

Sources: 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	3,820
Charter Communications	Telecommunications	3,390
CenturyLink	Telecommunications	3,070
Centura Health ⁽³⁾	Healthcare	2,810
Great-West Financial	Insurance/Retirement Saving Services	2,660
Raytheon Company	Aerospace Systems and Software	2,410
Kaiser Permanente	Healthcare	2,210
Arrow Electronics	Electronic Component Wholesaler	2,070
United Healthcare	Insurance	1,770

(1) Figures revised June 2019.

(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 ⁽³⁾	233	65,516,385	0	0	84	50,916,835

(1) Includes apartments, condominiums and townhomes.

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

(3) Figures are for January 1 through July 31, 2019.

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.

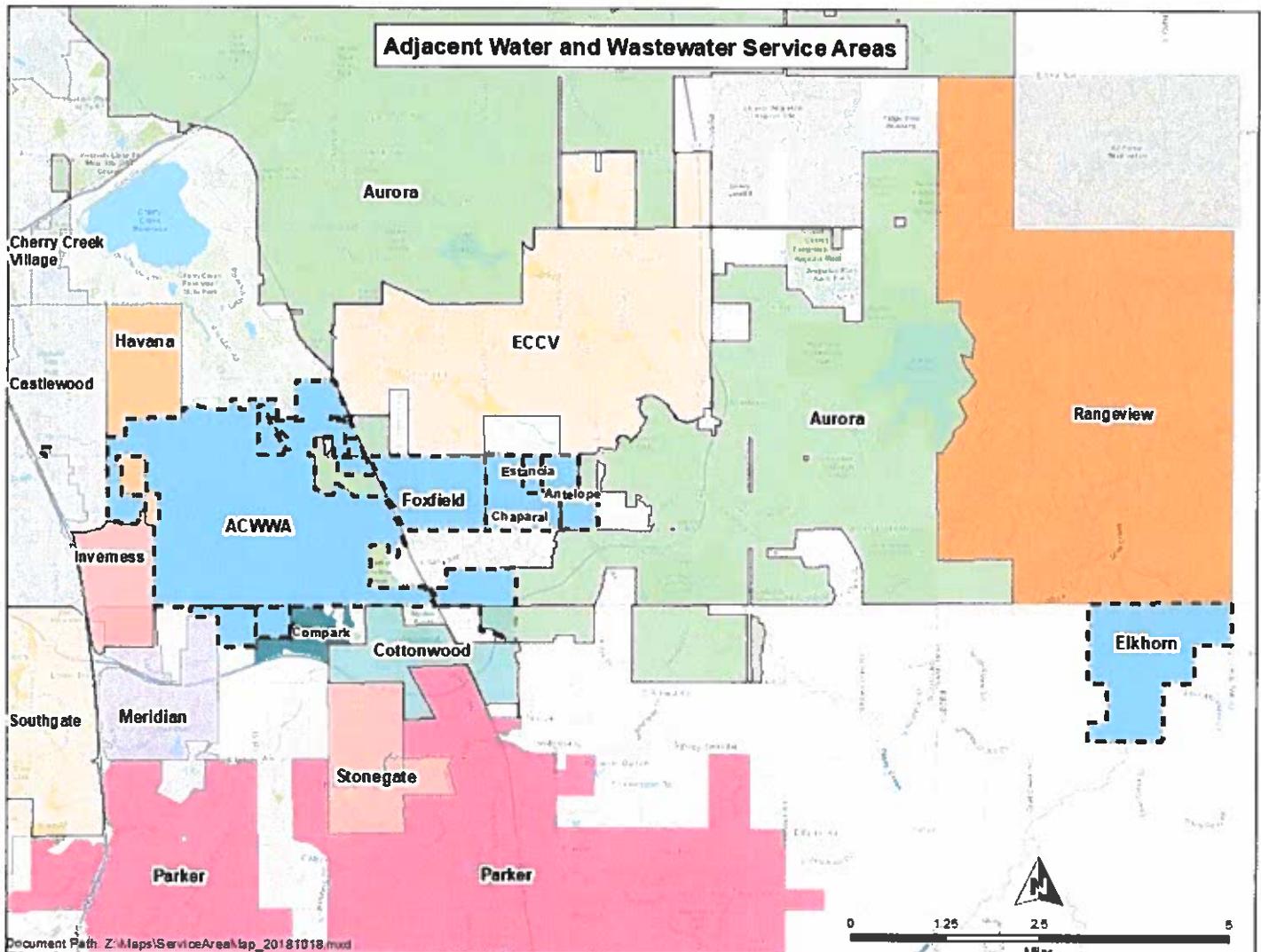
History of Foreclosures – Arapahoe County

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 ⁽¹⁾	394	--

(1) Figures are for January 1 through July 31, 2019.

Sources: Colorado Division of Housing (2013-2018 figures) and the Arapahoe County Office of the Public Trustee (2019 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 has been completed; however, some issues need to be resolved before filling and placing in service as part of the non-potable system.

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

2019 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 installation of the ACWWA Flow connecting main along Liverpool to finalize the connection of supply pipelines to provide ACWWA with 5.25MGD of potable water supply from the ACWWA Flow project;
- Completed the reconversion of the JWPP to a blended reverse-osmosis/microfiltration plant, with a new Biological Treatment System (BTS) for treatment of brine concentrate. This project is currently in the start-up phase and is expected to be fully operational by the end of 2019;
- 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:

- On June 17, 2019, the ACWWA service area experienced an extreme rain event that led to the failure of the Valley Country Club lift station. Because of the immediate and effective response of ACWWA field staff, the impact of the failure was mitigated. As a result of this incident, ACWWA has updated and fine-tuned its emergency response plan.

Finance

- Refunded the 2009 bonds for a present value savings of \$12.5 million over the term of the bonds;
- Received an upgraded credit rating from S&P for both the new bonds and the existing debt issues, from AA- to AA.

Cash Management

- Through active cash forecasting and daily monitoring of cash balances, maintained a high level of investment income, estimated to be approximately \$800,000 in 2019, an increase of 11% from 2018 income.

Improving Customer Service/Relations

- Developed and published on ACWWA's web page a story map, which locates on a map and describes the various water-related and customer service projects in and around ACWWA's service area
- Attended and presented at several Homeowners Association Meetings in 2019.

Safety

- There have been no lost time accidents in 2019, for a fifth consecutive year.

Employee Certifications

- ACWWA employees achieved 12 new and renewing certifications in its field operations, plant operations and maintenance departments in 2019.

Projects

- ACWWA successfully adjudicated and decreed its New Cache la Poudre shares, adding 690 acre-feet to its decreed water rights. ACWWA has now adjudicated approximately 50% of the ACWWA Flow water;
- Continued a sewer cleaning and surveying project from 2018. This cleaning technique uses high-pressure water jetting to remove buildup from the pipeline walls. In 2018, 40 miles of pipe was jetted, with the remaining lines cleaned in 2019.
- Completed a new water line along Liverpool Road that will deliver water supply from the ACWWA Flow Project;
- Completed the installation and drilling of, and placed in service a new Arapahoe Basin groundwater well in the Elkhorn Ranch Subdivision;
- Continued to upgrade ACWWA's GIS system and implemented ESRI software to help us better track and maintain infrastructure assets;
- Designed pipeline to bring Regulation 84 water to a local golf course to reduce demand on potable water supply;
- Designed improvements for the Waterbury lift station to repair components to ensure optimal operations and reliability;
- Began reconstruction of Chambers Reservoir to reduce seepage and to repair slope failure within the reservoir;
- Finalized an IGA with Arapahoe County to maintain a water system at their Eastern Service Center, and began operating this in March;
- Continued to negotiate with outside the service area developers for potential service contracts.

- **Development**

- ACWWA staff reviewed and approved a number of residential and non-residential developments in 2019. These projects resulted in over 180 TEs sold through September. Inspectors released 15 development projects for probationary acceptance and 15 projects for final acceptance;
- Installed 200 meters, 60 fire hydrants, and 175 gate valves.



Above are the tertiary effluent pumps at the Lone Tree Creek Water Reuse Facility (LTCWRF).

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>
March 2019	Long-term strategic priorities are approved by the Board.
August 2019	Director of Finance meets with Executive Team and department heads to determine staffing levels, expense budgets, and capital outlay needed for 2020; begin developing budget.
September 2019	Staff continues to develop the budget.
October 2019	Staff presents draft 2020 budget to the Finance Committee on September 25 and to the full Board on October 9.
November 2019	Staff presents 2 nd draft of 2020 budget to Board and holds rate hearing.
December 2019	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



9. Executive Summary

The 2020 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.

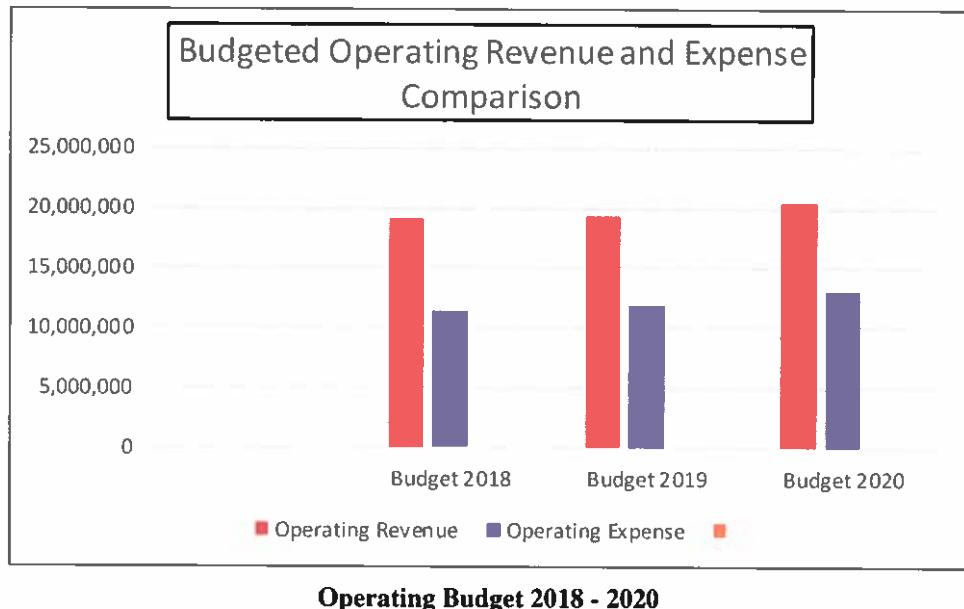
9.1 Significant Budgetary Items and Trends

The 2020 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 2020 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 \$20.5 million;
- Operating expenses of \$13.0 million;
- Non-operating revenue of \$5.8 million, primarily from tap fees;
- Non-operating expenditures of \$29.7 million comprised mainly of debt service payments of \$7.5 million and capital spending of \$25.2 million, including \$4.9 million in capital costs that are being carried over to 2020 from the 2019 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 Revenue

Operating revenue is projected to be \$20.5 million in 2020, which reflects an increase of \$1.2 million over the 2019 budget, and a decrease of \$401 thousand from 2019 estimated operating revenue.

Water Charges

Water charges revenue for 2020 is forecasted to increase \$277 thousand or 3.0% from 2019 estimated revenue. Consumption and fee revenue will increase by a 3% rate factor and a 2% account growth factor.

Sewer Charges

Based on 2019 results escalated for account growth and rate increases, wastewater revenue is expected to increase \$214 thousand, or 3.5% compared to forecast 2019 revenue. Budgeted 2020 revenue includes a 2% volume increase, and a 2% account growth factor.

Fire Lines

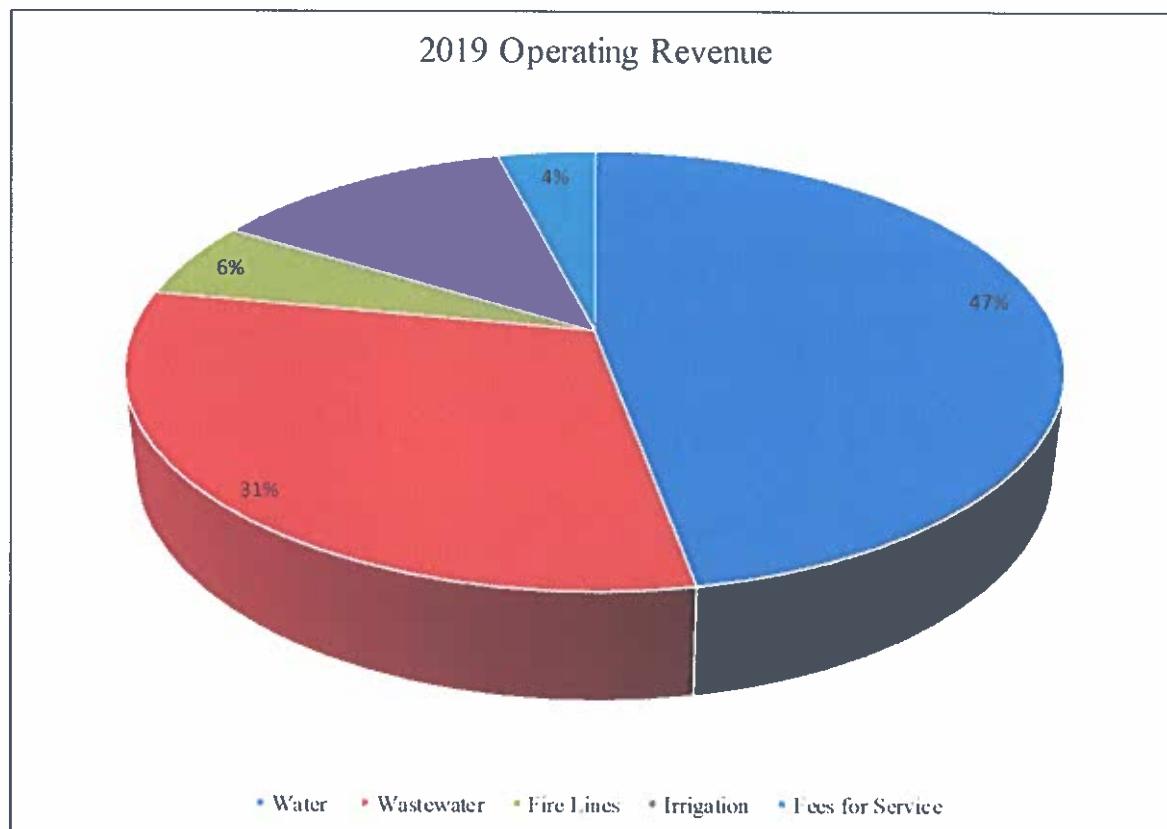
Fire line stand-by revenue is anticipated to increase by an account growth factor of 2% in 2020, with no increase to rates.

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 2020 compared to the 2019 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 2020 operating expense budget reflects a 9.0% overall increase from 2019 budgeted operating expenses. Expenditures of \$13.0 million are budgeted to be \$1.1 million higher than the 2019 budget. One of the main factors driving the increase are the budgeted cost of operating the JWPP as an RO plant for all of 2020 compared to eight months in 2019. 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. The addition of two FTEs is also a factor in increased operating expenses.

Office Expenses

The budget for 2020 office expenses reflects a 2.6% estimated increase in year-over-year budgeted costs, and includes funding for asset management, compliance and document management software.

Salaries and Benefits

The 2020 salaries and benefits budget reflect an increase of 10.0% from the 2019 budget and includes 40 FTEs for the entire year. Compared to 2019 estimated costs of \$4.1 million, salaries and benefits expense in 2020 will be \$412 thousand higher due to an increase in staffing to meet capacity and service level demands, a 4.0% overall salary adjustment and a 3.5% increase in medical benefit premiums.

Insurance

General liability, property, and workers' compensation insurance premiums are expected to increase an average of 5.8% from 2019 levels in 2020. ACWWA anticipates a decrease in its workers' compensation premiums, as the experience rating will decline in 2020 due to consecutive years with no time lost to accidents. PLGL will increase by \$9,000 specifically to increase ACWWA's "extra expense" coverage from \$250,000 to \$2,000,000 per occurrence.

Legal Fees

Legal fees are projected to decrease 19.9% compared to 2019 estimated costs. ACWWA anticipates a decrease in 2020 litigation expense as pending matters have largely been resolved. The 2020 budget of \$245 thousand is \$50 thousand, or 17.0%, less than the 2019 legal fee budget.

Professional Fees

The 2020 budget for professional fees of \$762 thousand is \$84 thousand, or 9.9% lower than the 2019 budget. Compared to 2019 estimated fees, 2020 expenses reflect an increase of \$184 thousand, as several projects that were included in 2019 budget will not be performed. 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 \$10 thousand compared to the 2019 budget. Compared to 2019 estimated expenses, the 2020 budget is \$1.9 million lower, as the Valley Country Club lift station failure resulted in approximately \$2.0 million of expenses that are currently unreimbursed. At 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 \$554 thousand from forecast 2019 expenses, and \$743 thousand from 2019 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 2020 budget for utilities expense is \$1.2 million, reflecting a slight decrease from 2019. Although some rate increases are expected, power costs for pumping should be lower than in 2019 as ACWWA will receive water from the JWPP for the entire year in 2020.

Contract Services

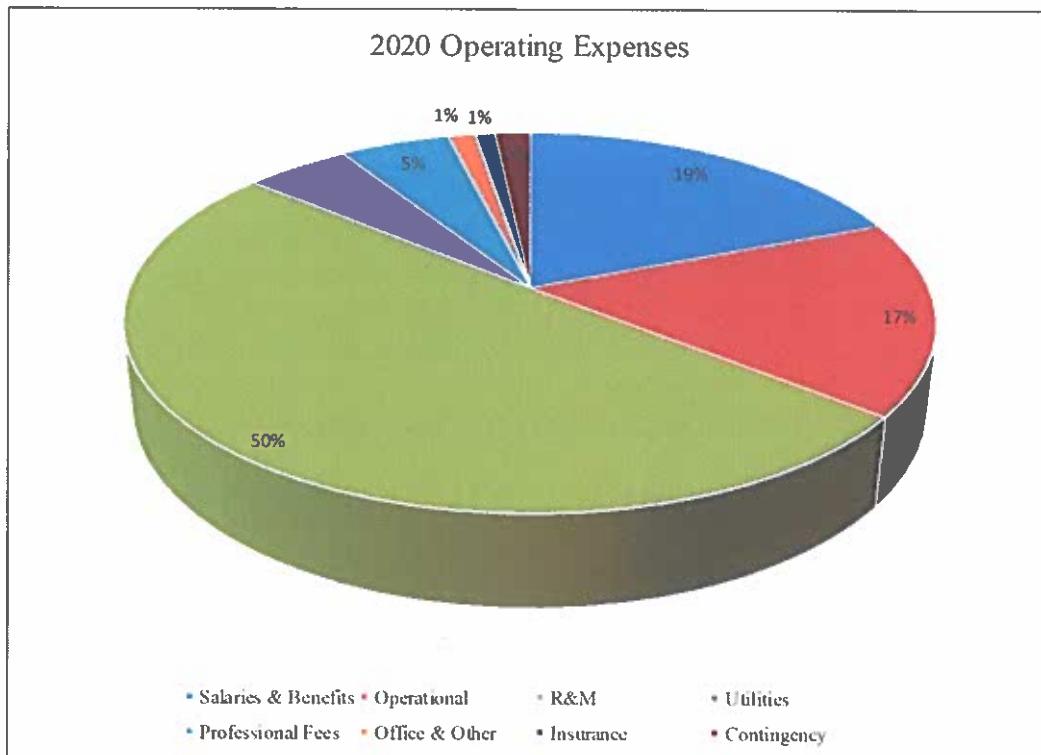
This line item is comprised mainly of sludge hauling, and the 2020 budget anticipates that expenses will remain fairly flat from 2019 estimated costs. The 2020 budget reflects a decrease of 17.2% from the 2019 budget, as current year utilization has been lower than expected.

Other Supplies and Expense

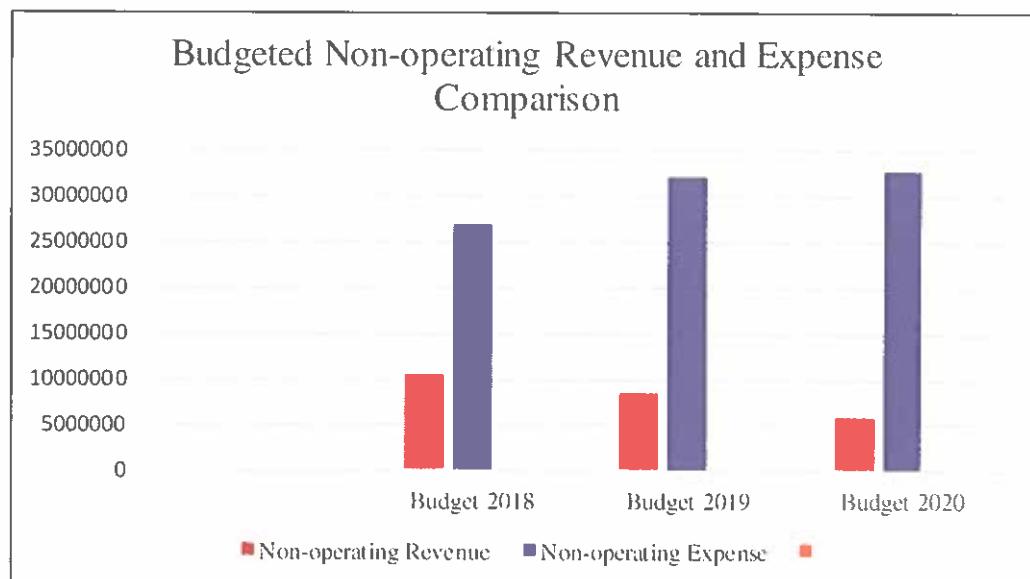
There are no increases budgeted in this category.

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 \$5.1 million, or 47.0% from estimated 2019 revenue. The 2020 budget reflects a 31.0% decrease from the 2019 budget, as development in ACWWA's service area is expected to taper off from the recent high levels. Additionally, when the 2009 Build America Bonds (BABS) were

refunded, the BABS interest subsidy of approximately \$1.8 million was eliminated. The interest savings from refunding the bonds more than offsets the loss of the subsidy.

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 change in investment vehicles, combined with rising interest rates, caused 2019 estimated investment income to exceed budget by \$385 thousand. In 2020 ACWWA expects to draw down its reserves to pay for necessary capital improvements and is budgeting for a decrease of \$205 thousand over 2019 forecast revenue.

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. This line item will decrease \$1.8 million from 2018 estimated and budgeted, but will be offset by decreases in bond interest expense.

Tap Fees and Contributions

Both water and wastewater tap sales are anticipated to decrease in 2020 from the high levels experienced from 2017 - 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 169.0 tap equivalents (TEs) in 2020, compared to projected sales of 214 in 2019. This includes 11.2 TEs for Cottonwood Water and Sanitation District. As of late 2019, there are 182 potential taps under review that are expected to be sold between the 2019 and 2021.

Non-operating Expenses

Non-operating expenses are budgeted to decrease approximately \$2.6 million, or 44.4%, over 2019 budgeted expenditures because of a \$2.6 million decrease in interest expense following the 2009 bond refunding. The 2020 capital budget reflects an increase of \$3.0 million from 2019.

Debt Service

Debt service is expected to decrease \$2.6 million with lower interest expense on the outstanding bonds.

Capital Outlay

Of the \$21.9 million capital budgeted for 2020, \$4.2 million is carried over from the 2019 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. The 2020 budget for new capital projects is \$17.8 million, and includes \$5.6 million for ACWWA's share of the ECCV Northern Water Treatment Plant expansion, \$5.0 million to replace the liner in Chambers Reservoir, \$1.4

million to equip the third BNR at the LTCWRF, \$1.2 million for water rights adjudication, and a number of smaller projects. A detailed list of 2020 capital projects can be found in §10.

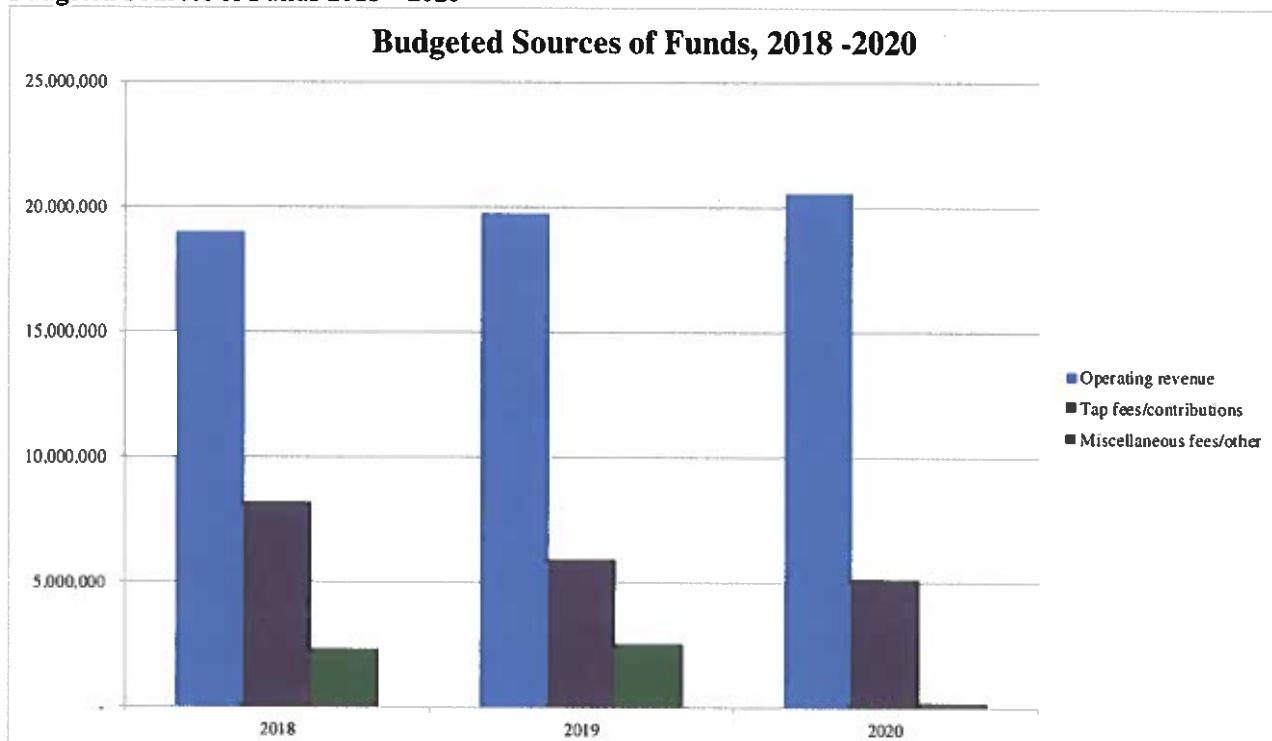
9.4 Long-range Financial Plan

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.

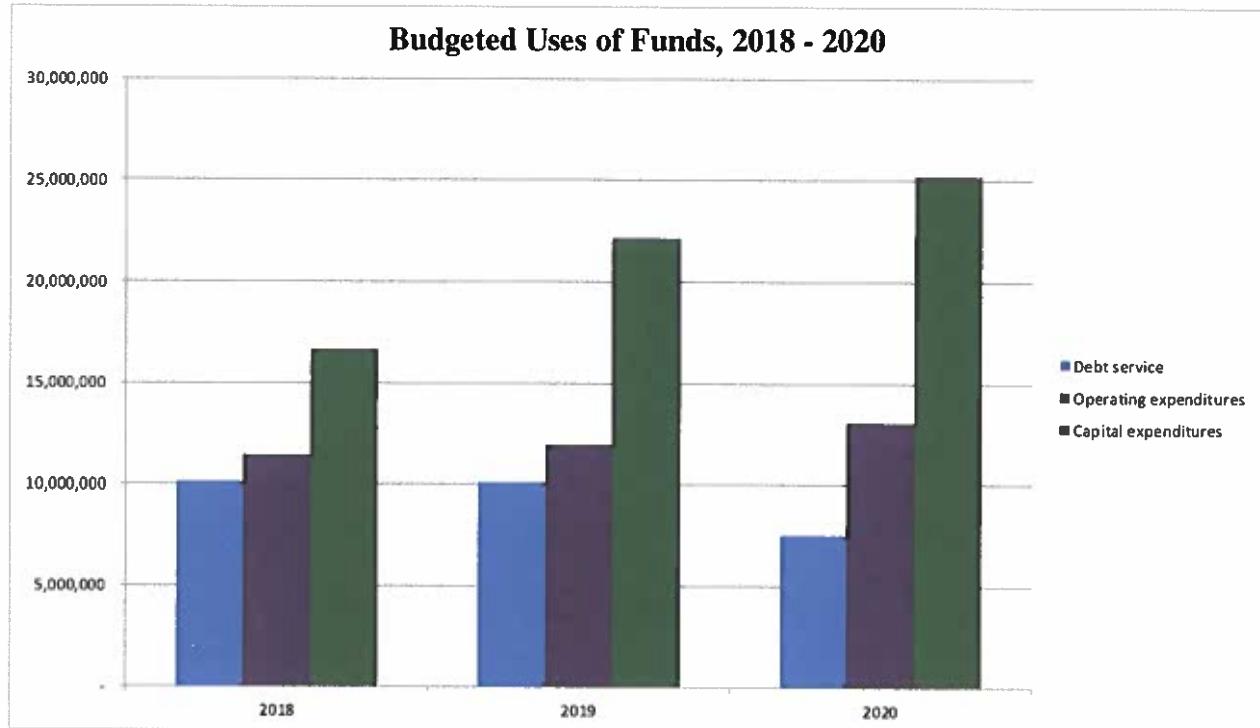
Based on financial trends through mid-2015, Carollo projected that ACWWA would need to raise water and wastewater rates 3% and 2%, respectively, each year to fund operations and projected capital needs. ACWWA does not have taxing powers and thus must fund capital projects through a combination of cash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

9.5 Sources and Uses of Funds (Budgeted)

Budgeted Sources of Funds 2018 – 2020



Budgeted Uses of Funds 2018 -2020



10. 2020 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 2020 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 2020 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. The following cases will require effort in 2020:

- Strohauer Recharge Site Augmentation Plan and Exchange
- 70 Ranch Reservoir / Haren Pipeline
- Western Mutual Change Case
- Fort Morgan Change Case
- Exchange Matrix Case

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 2020 is \$1,250,000. The current stage of adjudication has minimal impact on operating expenses.

ECCV Northern Project Phase 2 Expansion - 2020 Design and Construction:

The Northern Water Treatment Plant (NWTP) Expansion Phase 2 Project consists of multiple components. The expansion will provide ACWWA with an additional water flow of 3.0 MGD of treated water for distribution to the ACWWA service area. This expansion will bring the total flow to 5.25 MGD. The treatment of the water will be provided at the NWTP facility expansion to provide ACWWA with the 5.25 MGD treated water. The transmission of the water is to be accomplished with the expansion of the north and south booster pump stations design and construction projects.

Booster Pump Stations: This project is to fund ACWWA's portion of the expansion for the existing North and South Booster Pump Stations (BPS) and all ancillary facilities. The existing BPS have a 10 MGD flow capability. The project will provide for expansion of the pumping capacity to 20 MGD from the Northern Water Treatment Plant

in Brighton and deliver water to the ECCV storage tank near Smoky Hill Road and E470. Project design and construction began in 2018 and is scheduled for completion in 2020.

Northern Water Treatment Plant: This project is to fund ACWWA's portion of the expansion of the Northern Water Treatment Plant from the existing 10 MGD capacity to 20 MGD treatment capacity. ACWWA's portion of the new 10 MGD is 3.0 MGD, and the costs are proportionally shared for the treatment plant and its amenities. Upon completion of this portion of the project, ACWWA will have the full 5.25 MGD treatment and conveyance capability. Project design started in 2018 and has now moved into construction which is anticipated to be completed in 2021.

The estimated costs for design and initial construction in 2020 are \$5,638,300. At this time, there is no impact to operating costs; however, once the Northern Plant expansion is complete and ACWWA is receiving its full complement of 5.25 MGD, water treatment costs will increase.

Water System Asset Replacement

The water distribution system runs 24/7/365 and needs to provide continuous service. For 2020, \$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.

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. There is \$500,000 budgeted for these improvements.

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 2020

JWPP New Finished Water Pumps

The current finished water pumps at the JWPP are oversized for the volume of flow that the plant is producing. A study is being done currently to size and select more appropriate pumps for the conditions at the plant now.

The estimated costs for these is \$200,000. The new pumps should result in immaterial savings in pumping costs.

Water Development Project – Cherry Creek Project Water Authority (CCPWA):

ACWWA will require additional water supplies to meet future demand, and this project is one that could help develop those needed water supplies. As part of the CCPWA establishing agreement, ACWWA has certain obligations to fund operational and capital costs. ACWWA has budgeted \$160,000 in 2020 for the capital amount needed to support the development of ACWWA's assets in CCPWA. The value of ACWWA's assets in the CCPWA are valued is approximately \$7 million.

This project does not impact operating expenses, although there is an operating component to ACWWA's annual contributions.

Northern Treatment Plant – Replace RO Membranes

The Northern Water Treatment Plant has been in operation since 2012 and some of the current RO membranes have been identified for replacement based on performance. These have been identified to have a payback period through energy cost savings of three years.

The estimated ACWWA share for these is \$100,000.

JWPP SCADA System Upgrade

The current SCADA system at the JWPP is outdated and has been identified as a security risk to ACWWA. This project will review the current system and upgrade the system to current SCADA system standards and equipment. The estimated project cost is \$100,000 and has no current impact to operating costs.

High-Zone Conversion to Re-Balance Supply Distribution

With the JWPP plant coming back online as an RO plant at a higher flow capacity, the majority of 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 for \$100,000.

Mixers at LTCWRF

The mixers at the Surge Tank and EQ Basins and the LTCWRF are old and need replaced. This project is budgeted 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.

The estimated project cost for this project is \$45,000.

Irrigation Booster Systems – Highfield Business Park

There are several new developments in the Highfield Business Park area where ACWWA knows there are low irrigation pressures. The Board authorized money for booster systems for this area, some of which have been used already.

The remaining allocated authorized amount is \$30,000.

PRIORITY 2 PROJECTS

Well Rehab and Cleaning

ACWWA has numerous deep groundwater wells as well as alluvial wells which are consistently run throughout the year. Performing deep cleaning over the years on the wells improves their performance and longevity. For 2020, ACWWA has budgeted \$300,000 for well rehab and cleaning.

JWPP Additional Projects

Reconverting the JWPP to an RO treatment facility, there are likely additional capital costs that will come up as operations get underway. This budget item is for those identified capital projects and is estimated at \$150,000 and has no current impact to 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. There is \$150,000 that has been identified for this meter replacement program for 2020.

Facilities Needs Analysis and New ACWWA Facilities Design

The ACWWA Administration Building is coming to the end of its useful life. Initially, a needs analysis will be performed to determine what building needs ACWWA has and the best path forward on this and then plan to move in to design. There is \$120,000 in the 2020 budget to perform the needs analysis and design of a new administration building.

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.

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

VFD Replacement

There are several pieces of critical equipment to the LTCWRF that require VFDs. Several of these VFDs are aging and will run to failure. Purchasing a VFD to have ready on the

shelf allows operations to run these VFDs to failure without having to worry about significant downtime for equipment if there is one ready on the shelf.

The estimated cost for this project is \$75,000 and should have no impact on operating costs.

PRIORITY 3 PROJECTS

Chambers Reservoir– Reservoir Repair and Relining Project:

ACWWA's Chambers Reservoir requires the design and construction of a repair and lining/underdrain system to improve the holding capacity of the existing reservoir. Designs are currently being evaluated to develop an improved reservoir for ACWWA's long term needs. ACWWA's estimated portion of the reservoir improvements for 2020 is being considered at a cost of \$7,500,000. This project will not impact current operating expenses but will allow ACWWA to use more of its non-potable water supply and conserve potable water supply.

Chambers Reservoir Pump Station and Piping:

ACWWA has budgeted \$50,000 to evaluate the start-up of the Chambers Reservoir delivery system and determine if the delivery capabilities for the current non-potable water distribution are appropriate for the start-up conditions, including pre-design for the jockey pump and controls as well as some modifications to system piping. The pump station will be evaluated to determine whether it should be modified to utilize a smaller pump for initial pumping and the shoulder season delivery of water from Chambers Reservoir.

This project is budgeted at \$225,000 and has no current impact to operating costs.

LTCWRF – Equipping Third BNR:

The LTCWRF currently has two BNRs which are required to operate at all times. Equipping the third BNR will provide the redundancy needed to take the existing BNRs offline to perform routine O&M activities. The 3rd BNR has already been designed to about an 80%-90% design level, and the money for the 2020 budget is designated for completion of the design drawings and construction.

The construction costs are estimated to be \$1,445,000 in 2020 and will be funded through the LTCWRF reserve. This project is not expected to impact operating costs.

Mixers at Digester

The mixers at the digester need replacement. These are critical components of the LTCWRF process and cannot wait for them to fail.

The estimated costs for these is \$125,000 and should have no impact on operating costs.

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.

The estimated costs for these projects is \$200,000 and should have no impact on operating costs.

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 will help to identify what improvements are critical and need to be done right away and what should be identified for improvements in the future.

The estimated cost for this project is \$100,000 and should have no impact on operating costs.

Eliminate Cross Connections

With Chambers Reservoir being completed and able to be operated again, there are several known cross connections between the non-potable and potable system that were made to allow users to get water while the non-potable system was not in full operation. Now that the reservoir will be back online, these cross connections will need to be permanently eliminated.

The estimated cost for this project is \$100,000 and should have no impact on operating costs.

Wastewater Infiltration Abatement

Over time with the wastewater collection system, root intrusion, pipe offsets, and other problems allow groundwater to seep into the collection pipes and increase the base flow at the wastewater treatment plant, ultimately increasing the cost for treatment. ACWWA has budgeted \$100,000 in 2020 for wastewater infiltration abatement for items such as slip-lining pipes and manholes for targeted areas with high infiltration.

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. ACWWA has budgeted \$60,000 for this, the fourth year of a multi-year effort 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.

Accounting/Billing Software

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 is \$60,000 and will cause a moderate increase in operating expenses from maintenance and support costs.

Field PLCs SCADA Modifications

Some of the current Field PLCs are outdated to work with the Main PLC. These need to be replaced to work more effectively with the upgraded Main PLC.

The estimated cost for this project is \$50,000 and should have no impact on operating costs.

Chaparral PS Building Modifications

The current Chaparral pump station building has old, unused equipment in it and has been identified as a good location for storage and a workshop for Field Operations. The old equipment needs to be demolished and re-configured for storage and a workshop.

The estimated cost for this project is \$50,000 and should have no impact on operating costs.

Wastewater System Flow Meters

Additional monitoring is needed throughout the collection system to ensure normal operation of the collection system and to allow for early identification of problems through the system. Installing six wastewater flow meters through the three major collection basins will help with this monitoring.

The estimated cost for this project is \$40,000 and should have no impact on operating costs.

Well Site Improvements

Over time the well sites through the ACWWA service area need regular, routine maintenance but periodically the sites need more than routine type maintenance. There is \$30,000 in the 2020 budget for these well site improvements.

Administration Building Improvements

The ACWWA Administration Building requires ongoing improvements and \$5,000 has been set aside for these projects for 2020.

2020 Unallocated Projects Budget

The unallocated projects budget amount is based on historical needs for unexpected project costs, as well as for renewal and replacement of capital equipment.

The budget request for unallocated projects is \$300,000.

CAPITAL EQUIPMENT - 2020

Capital Equipment Outlay

ACWWA plans to replace older, higher-mileage vehicles. Additionally, Lone Tree Creek Water Reuse Facility has been in operation for ten years, and much of the equipment is nearing the end of its useful life. Plans are to begin replacing critical items. The estimated costs for these is \$300,000 for 2020.

CARRYFORWARD PROJECTS

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 expected to be made available in 2020.

The costs for the 500 acre-feet of storage in the South Platte Storage reservoir is \$1,900,000, and the project is not expected to affect operating costs.

LTCWRF – Third Clarifier:

The LTCWRF currently has two clarifiers which are required to operate at all times. Adding a third clarifier will provide the redundancy needed to take the existing clarifiers offline to perform routine O&M activities. The 3rd clarifier has already been designed to about an 80%-90% design level, and the money for the 2020 budget is designated for completion of the design drawings and construction.

The construction costs are estimated to be \$1,300,000 in 2020 and will be funded through the LTCWRF reserve. This project is not expected to impact operating costs.

ECCV Northern Project Phase 2 Expansion - 2020 Design and Construction:

The Northern Water Treatment Plant (NWTP) Expansion Phase 2 Project consists of multiple components. The expansion will provide ACWWA with an additional water flow of 3.0 MGD of treated water for distribution to the ACWWA service area. This expansion will bring the total flow to 5.25 MGD. The treatment of the water will be provided at the NWTP facility expansion to provide ACWWA with the 5.25 MGD treated water. The transmission of the water is to be accomplished with the expansion of the north and south booster pump stations design and construction projects.

Waterbury Lift Station

A full system evaluation was performed at the Waterbury Lift Station to identify system improvements or replacements that need to be made. This includes items such as replacing valves, grating, electrical, pump guides, alarm system for power failure, etc. ACWWA will carryforward \$155,000 to finish the upgrades for 2020 for the critical system improvements based on the recommendations memo.

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.

The estimated cost for the Water and Wastewater Master Plan in 2020 is \$275,000, and it will not impact operating expenses.

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

ACWWA has budgeted \$100,000 (2019 carryforward) to evaluate 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.

There is no current impact to operating costs.

Family Sports Conversion to Regulation 84 Water

Family Sports Center is one of the largest potable water users in the ACWWA service area and the water is primarily used to water the facility's golf course. This project is to convert the irrigation system from potable water to reclaimed water. The design is complete and was put out for bid in 2019 but due to the current construction market bids came in extremely high. The project will be re-bid for planned construction in the Spring of 2020.

The construction cost for converting the irrigation system to reclaimed water is estimated at \$200,000. This project is not expected to impact operating expenses.

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 2020, 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 2020, 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 27.0 FTEs in 2020 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 2018 - 2020

REGULAR EMPLOYEES (FTE)	2018	2018	2019	2019	2020
	BUDGET	ACTUAL	BUDGET	ACTUAL	PROPOSED
ADMINISTRATION					
General Manager	1.0	1.0	1.0	1.0	1.0
Director of Administrative Services	1.0	1.0	1.0	1.0	1.0
Finance Manager	-	-	-	-	1.0
Engineering Manager	1.0	0.5	1.0	1.0	1.0
Senior Project Manager	1.0	1.0	1.0	1.0	1.0
Operations/Maintenance Manager	1.0	1.0	1.0	1.0	1.0
Special Projects Manager	-	-	-	-	1.0
Customer Service Manager	1.0	1.0	1.0	1.0	1.0
Maintenance Superintendent	1.0	1.0	1.0	1.0	1.0
Purchasing and Administrative Specialist	1.0	1.0	1.0	0.6	1.0
Water Resources Engineer	1.0	1.0	1.0	1.0	1.0
Utilities Engineer	1.0	1.0	1.0	1.0	1.0
Construction Inspection Supervisor	1.0	1.0	1.0	1.0	1.0
IT Administrator	1.0	1.0	1.0	1.0	1.0
Human Resources Generalist	1.0	1.0	1.0	1.0	1.0
Accountant	1.0	1.0	1.0	1.0	1.0
Administrative Assistant	1.0	1.0	1.0	1.0	1.0
Administrative Assistant	1.0	1.0	1.0	0.5	1.0
Accounting Specialist	1.0	1.0	1.0	1.0	1.0
Customer Service/Billing Specialist	1.0	1.0	1.0	1.0	1.0
Customer Service Specialist	1.0	1.0	1.0	1.0	1.0
Maintenance Technician II	1.0	1.0	1.0	1.0	1.0
Maintenance Technician II	1.0	1.0	1.0	1.0	1.0
Maintenance Technician II	1.0	1.0	1.0	1.0	1.0
Construction Inspector I	1.0	1.0	1.0	1.0	1.0
GIS Specialist	1.0	1.0	1.0	1.0	1.0
WATER OPERATIONS					
Field Superintendent	1.0	1.0	1.0	1.0	1.0
Chief Water Plant Operator	1.0	1.0	-	-	-
Lead Field Technician	1.0	1.0	1.0	1.0	1.0
Lead Field Technician	1.0	1.0	1.0	1.0	1.0
Field Technician I				1.0	1.0
Field Technician I	1.0	1.0	1.0	1.0	1.0
Field Technician I	1.0	1.0	1.0	1.0	1.0
Field Technician III	1.0	1.0	1.0	1.0	1.0
Cross-connection/Backflow Control Specialist	1.0	1.0	1.0	1.0	1.0
Cross-connection/Backflow Control Specialist	1.0	1.0	1.0	1.0	1.0
WASTEWATER OPERATIONS					
Wastewater Plant Superintendent	1.0	1.0	1.0	1.0	1.0
Wastewater Plant Operator I	1.0	1.0	1.0	1.0	1.0
Wastewater Plant Operator II	1.0	1.0	1.0	1.0	1.0
Wastewater Plant Operator II	1.0	1.0	1.0	1.0	1.0
Wastewater Lab Technician	1.0	1.0	1.0	1.0	1.0
Pretreatment Coordinator	1.0	1.0	1.0	0.2	-
Totals	39.0	38.5	38.0	37.3	40.0

FINANCIAL SUMMARIES AND NOTES



12. Board Summary Forecasted 2020 Combined Operations

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY
BOARD SUMMARY
FORECASTED 2020 BUDGET AS PROPOSED
WITH 2018 ACTUAL AND 2019 ESTIMATED
For the Years Ended and Ending December 31

	ACTUAL 12/31/18	ACTUAL 9/30/19	BUDGET 2019	ESTIMATED 2019	PROPOSED 2020
BEGINNING FUNDS AVAILABLE	\$ 38,547,472	\$ 43,346,172	\$ 38,547,472	\$ 43,346,172	\$ 31,721,113
REVENUES					
Operating revenues:					
Water Charges	9,089,163	6,208,750	9,197,002	9,395,969	9,673,211
Sewer Charges	5,810,633	4,193,562	5,844,056	6,110,606	6,324,161
Fire Lines	1,131,492	765,318	1,142,220	1,151,494	1,174,524
Irrigation	2,741,021	1,772,542	2,323,441	2,554,492	2,547,201
Fees for Services	948,517	1,407,055	854,538	1,652,117	824,763
RO Plant Revenue	299,285	77,789	-	80,000	-
	20,020,111	14,425,016	19,361,257	20,944,678	20,543,860
Non-operating revenues:					
Interest Income	717,795	561,815	475,000	825,861	475,000
Miscellaneous Revenue	2,163,570	1,098,468	2,051,004	1,802,320	203,670
Tap Fees and Contributions	11,088,855	6,773,541	5,888,374	6,953,875	5,121,569
	13,970,219	8,433,825	8,414,378	9,582,056	5,800,239
Total revenues	33,990,330	22,858,840	27,775,635	30,526,734	26,344,099
Total funds available	72,537,802	66,205,012	66,323,107	73,872,906	58,065,211
EXPENDITURES					
Office Expense	204,719	174,888	311,542	251,720	319,529
Salaries and Benefits	3,777,937	2,985,846	4,112,296	4,087,526	4,524,487
Insurance	191,514	141,755	202,627	188,287	214,342
Legal	299,349	203,448	295,000	305,863	245,000
Professional Fees	751,739	431,789	846,900	578,130	762,482
Repairs and Maintenance	1,040,913	2,598,806	1,190,149	3,121,410	1,200,070
Operational	2,370,507	2,280,496	3,192,518	3,381,322	3,935,570
Utilities	1,240,173	880,765	1,188,541	1,174,353	1,168,256
Contract Services	261,833	169,402	273,670	225,870	226,342
Bad Debt Expense	-	500	500	500	500
Other Supplies and Expense	10,200	8,300	14,400	14,400	14,400
Debt Service	9,901,648	4,945,387	10,083,849	10,083,849	7,502,399
Capital Outlay	9,141,098	12,488,760	22,138,654	18,513,654	25,183,297
Contingency	-	300,000	250,000	400,000	-
Total expenditures	29,191,630	27,309,641	44,150,645	42,176,883	45,696,673
Total expenditures and transfers out requiring appropriation	29,191,630	27,309,641	44,150,645	42,176,883	45,696,673
ENDING FUNDS AVAILABLE	\$ 43,346,172	\$ 38,895,371	\$ 22,172,462	\$ 31,696,023	\$ 12,368,538
NET INCOME(LOSS)	\$ 4,798,700	\$ (4,450,801)	\$ (16,375,010)	\$ (11,650,149)	\$ (19,352,574)

13. Board Summary Forecasted 2020 Budget Water Operations

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY

WATER OPERATIONS

FORECASTED 2020 BUDGET AS PROPOSED

WITH 2018 ACTUAL AND 2019 ESTIMATED

For the Years Ended and Ending December 31

ACTUAL 12/31/18	BUDGET 2019	ESTIMATED 2019	BUDGETED 2020
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REVENUES

Operating revenues:

Water Charges	9,089,163	9,197,002	9,395,969	9,673,211
Fire Lines	1,131,492	1,142,220	1,151,494	1,174,524
Irrigation	2,741,021	2,323,441	2,554,492	2,547,201
Fees for Services	515,732	433,643	1,020,543	411,439
RO Plant Revenue	299,285	-	80,000	-
Total operating revenues	13,776,693	13,096,307	14,202,498	13,806,376

EXPENSES

Operating expenses:

Office Expense	153,344	241,928	201,053	241,114
Salaries and Benefits	2,263,115	2,407,716	2,395,220	2,676,191
Insurance	123,249	109,884	148,054	165,024
Legal	259,618	229,200	270,370	190,400
Professional Fees	597,702	708,716	487,728	610,839
Repairs and Maintenance	558,331	548,762	624,449	617,299
Operational	2,049,346	2,814,261	1,812,646	3,495,882
Utilities	732,021	672,447	633,390	601,993
Contract Services	60,590	77,332	43,343	41,309
Bad Debt Expense	-	360	360	360
Other Supplies and Expense	7,344	10,368	10,368	10,368
Contingency	-	216,000	180,000	288,000
Total operating expenditures	6,804,659	8,036,973	6,806,981	8,938,777

Operating Income (not including depreciation)

6,972,033 5,059,334 7,395,518 4,867,599

Non-operating revenues:

Interest Income	516,812	342,000	594,620	342,000
Miscellaneous Revenue	2,160,758	2,048,198	1,799,498	200,850
Tap Fees and Contributions	8,023,065	4,084,245	5,502,361	3,767,325
Total non-operating revenues	10,700,635	6,474,443	7,896,479	4,310,175

Non-operating expenses:

Debt Service	9,434,761	9,480,099	9,480,099	6,916,549
Capital Outlay	9,001,602	16,287,254	15,461,904	15,031,497
Capital Outlay - Carryforward		3,665,000	2,700,000	4,188,750
Total non-operating expenses	18,436,363	29,432,353	27,642,003	26,136,796

NET INCOME (not including depreciation)

\$ (763,694) \$ (17,898,576) \$ (12,350,007) \$ (16,959,022)

14. Board Summary Forecasted 2020 Sewer Operations

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY

SEWER OPERATIONS
FORECASTED 2020 BUDGET AS PROPOSED
WITH 2018 ACTUAL AND 2019 ESTIMATED
For the Years Ended and Ending December 31

ACTUAL 12/31/18	BUDGET 2019	ESTIMATED 2019	BUDGETED 2020
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REVENUES

Operating revenues:

Sewer Charges	5,810,633	5,844,056	6,110,606	6,324,161
Fees for Services	432,785	420,895	631,574	413,323
Total operating revenues	<u>6,243,418</u>	<u>6,264,951</u>	<u>6,742,180</u>	<u>6,737,484</u>

EXPENSES

Operating expenses:

Office Expense	51,294	65,348	50,667	78,415
Salaries and Benefits	1,512,620	1,689,580	1,677,306	1,848,296
Insurance	40,688	92,743	40,233	49,319
Legal	39,731	65,800	35,493	54,600
Professional Fees	154,037	138,184	90,402	151,643
Repairs and Maintenance	482,582	641,387	2,496,961	582,771
Operational	321,161	378,257	418,677	439,688
Utilities	508,152	515,627	539,864	565,675
Contract Services	162,960	189,388	177,423	185,032
Bad Debt Expense	-	140	140	140
Other Supplies and Expense	2,856	4,032	4,032	4,032
Contingency	-	84,000	70,000	112,000
Total operating expenditures	<u>3,276,081</u>	<u>3,864,486</u>	<u>5,601,197</u>	<u>4,071,612</u>
	<u>2,967,337</u>	<u>2,400,464</u>	<u>1,140,983</u>	<u>2,665,873</u>

Non-operating revenues:

Interest Income	200,983	133,000	231,241	133,000
Miscellaneous Revenue	2,811	2,806	2,822	2,820
Tap Fees and Contributions	3,065,790	1,804,129	1,451,514	1,354,244
Total non-operating revenues	<u>3,269,584</u>	<u>1,939,935</u>	<u>1,685,577</u>	<u>1,490,064</u>

Non-operating expenses:

Debt Service	466,888	603,750	603,750	585,850
Capital Outlay	139,495	2,036,400	326,660	2,726,800
Carry-forward Capital	-	-	-	-
Total non-operating expenses	<u>606,383</u>	<u>2,640,150</u>	<u>930,410</u>	<u>3,312,650</u>

NET INCOME (not including depreciation)

\$ 5,630,538 \$ 1,700,249 \$ 1,896,150 \$ 843,286

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 169 in 2020, with Cottonwood wastewater tap sales projected at 11.2 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 2020 Capital Outlay

**Arapahoe County Water & Wastewater Authority
Capital Improvement Program Budget
For the year ending December 31, 2020**

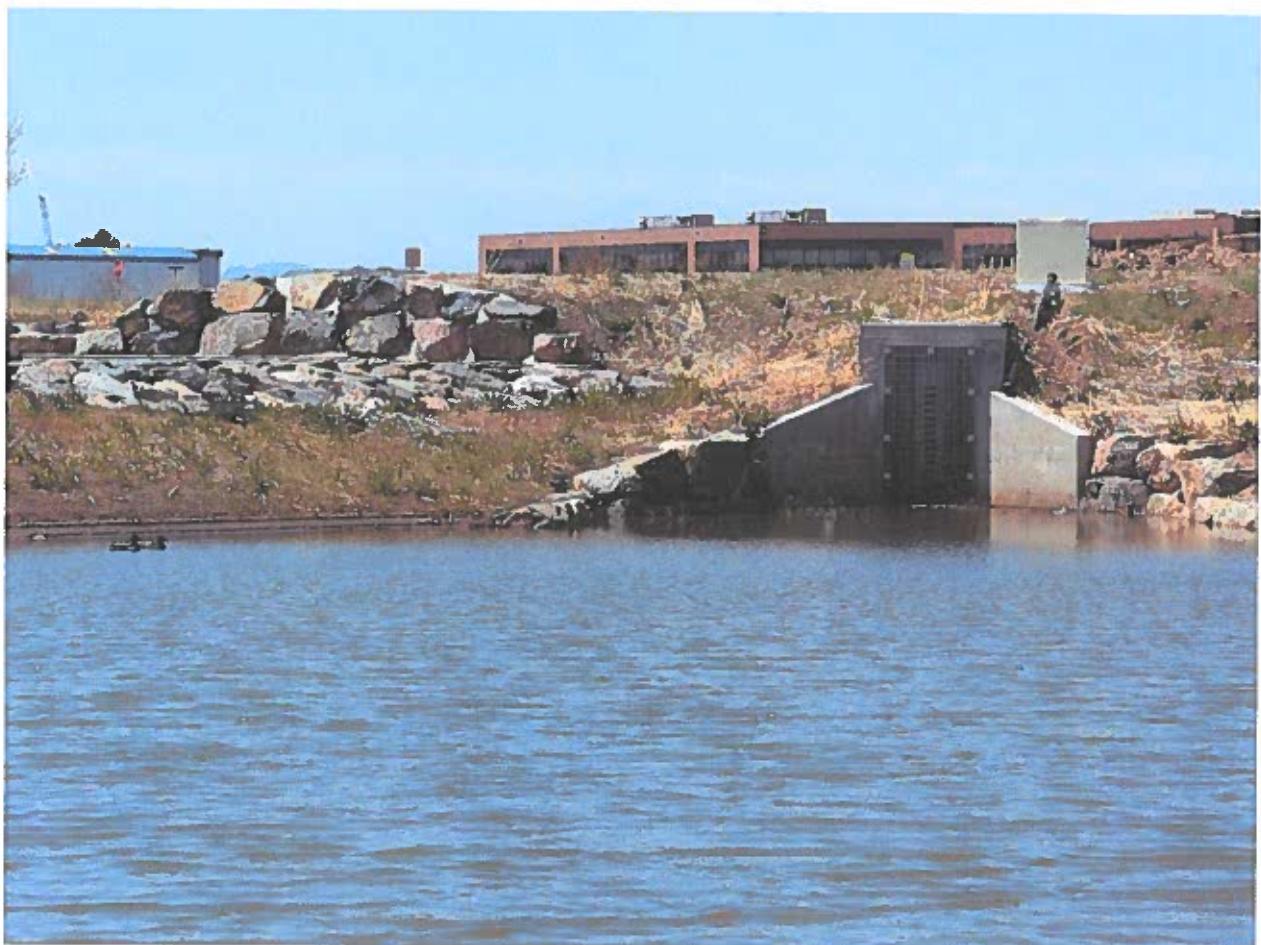
Project	Budgeted Cost	Category
<u>Priority 1 Projects</u>		
ECCV RO facility expansion	\$ 5,638,297	IGA
Adjudication costs	1,250,000	Required
Water System asset replacement	400,000	Risk
VCC Lift Station Electrical and Controls Improvements; Redundancy	500,000	Risk
Water system upgrades (PRV's, air relief, valves, hydrants)	300,000	Risk
JWPP - new pumps (from 2019 study)	200,000	Efficiency
Water development - CCPWA (Pending sale)	160,000	IGA
Replace RO membranes Northern Treatment Plant	100,000	IGA
JWPP - SCADA system upgrade	100,000	Renew/replace
High-zone conversion - re-balance supply distribution	100,000	Required
Mixers (Surge Tank and EQ Basins)	100,000	Renew/replace
Water Meters - new development	45,000	Required
Irrigation booster system - Highfield Business Park	30,000	Required
Total Priority 1 Capital	8,923,297	
<u>Priority 2 Projects</u>		
Wells - rehab (life cycle replacement- pump/motor/well cleaning)	300,000	Risk
JWPP - additional identified projects	150,000	Renew/replace
Water meter replacement	150,000	Efficiency
New ACWWA facilities design	100,000	Growth
4 MG Tank Site - irrigation, landscape, and drainage project	100,000	Renew/replace
VFD replacement	75,000	Risk
ACWWA facilities needs analysis	20,000	Growth
Total Priority 2 Capital	895,000	
<u>Priority 3 Projects</u>		
Chambers Reservoir construction	7,500,000	Enhancement
Equip 3rd BNR LTCWRF	1,445,000	Redundancy
Capital equipment outlay	300,000	Renew/replace
Chambers Reservoir pump station and piping	225,000	Enhancement
Mixers at digester (4 Airlift Chopper Pumps)	125,000	Efficiency
SCADA program development - upgrades	100,000	Risk
SCADA for re-use and NP raw (control strategy)	100,000	Renew/replace
Peoria LS instrumentation, controls, piping	100,000	Risk
Eliminate cross connections (approx 10 EA @ \$10k/EA) (Timing TBD)	100,000	Required
Infiltration abatement: lining, sealing	100,000	Risk
Water meter upgrades	60,000	Efficiency
Accounting/billing software	60,000	Efficiency
Field PLCs - All SCADA HMI PLC in field to match Main PLC	50,000	Renew/replace
Retrofit Chapparal PS building for water system equipment storage	50,000	Efficiency
Wastewater system flow meters	40,000	Efficiency
Wellsite landscape improvements	30,000	Renew/replace
Emergency generator replacement	20,000	Risk
HVAC improvements - dewatering Building	20,000	Renew/replace
LTCWRF & Lift Station Landscaping, Parking, Roof Improvements	10,000	Renew/replace
Administration building improvements (annual)	5,000	Renew/replace
Total Priority 3 Capital	10,440,000	
Total New Capital	20,258,297	
<u>Carryforward Projects (from 2019 Budget)</u>		
S. Platte storage reservoir (United #3)	1,900,000	IGA
Equip 3rd clarifier unit	1,300,000	Redundancy
ECCV booster pump station	400,000	IGA
Chambers Reservoir construction - Phase I	500,000	Enhancement
Chambers pump station and piping	50,000	Efficiency
Waterbury lift station	155,000	Risk
Well site improvements - Smith 1&2	45,000	Risk
Master planning - potable water system	275,000	Renew/replace
Family Sports Reg 84 conversion	200,000	Growth
Chloramine conversion	100,000	Required
Total carryforward	4,925,000	
Total 2020 Budgeted Capital Expenditures	\$ 25,183,297	

ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY

SCHEDULE OF DEBT SERVICE REQUIREMENTS TO MATURITY

December 31, 2020

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, report, 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
- CWSD – 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 2020 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 2020.

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, 2020 - \$71,485,000.
- Water and Wastewater Revenue Bonds, Series 2012 Bonds, original amount \$5,525,000; amount outstanding January 1, 2020 - \$3,385,000.
- Water and Wastewater Revenue Refunding Bonds, Series 2016 Bonds, original amount \$16,475,000; amount outstanding January 1, 2020 - \$14,510,000.
- Water and Wastewater Revenue Refunding Bonds, Series 2017 Bonds, original amount \$12,720,000; amount outstanding January 1, 2020 - \$12,540,000.

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

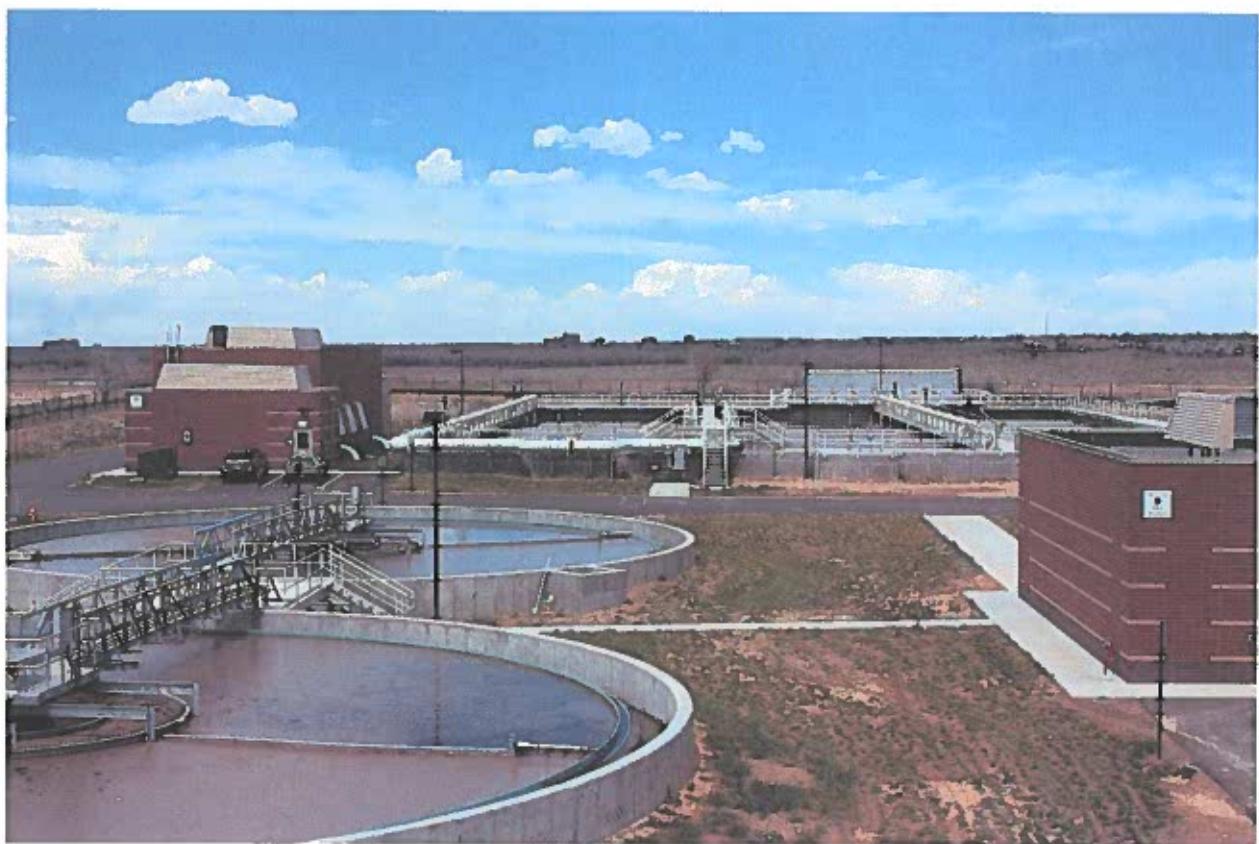
Designated cash funds are general use funds that have been set apart by Board action for a specific purpose. These funds can only be used for those purposes. However, these funds are at the discretion of the Board and can be used for any other purpose by an action of the Board. ACWWA maintains designated 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.



Budget Resolution 2019-03

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 2020, AND ENDING ON THE LAST DAY OF DECEMBER 2020.

WHEREAS, the proposed 2020 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: 2020 Budget Revenues. That the estimated revenues for each fund set out in the budget are accepted and approved.

Section 2: 2020 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, 2019, ending fund balance of the Operating Fund, the exact amount to be determined as part of the audit of the December 31, 2019 financial statements, is designated as a general reserve for future contingencies.

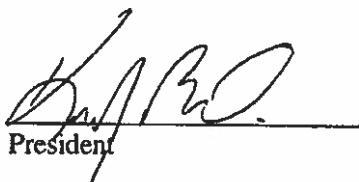
Section 4: Adoption of Budget for 2020. That the budget as submitted and if amended, then as amended, is hereby approved and adopted as the budget of the Arapahoe County Water and Wastewater Authority for calendar year 2020.

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 13th day of November 2019.



Jeff B. D.
President

ATTEST:



Terri Banks-Bair
Secretary