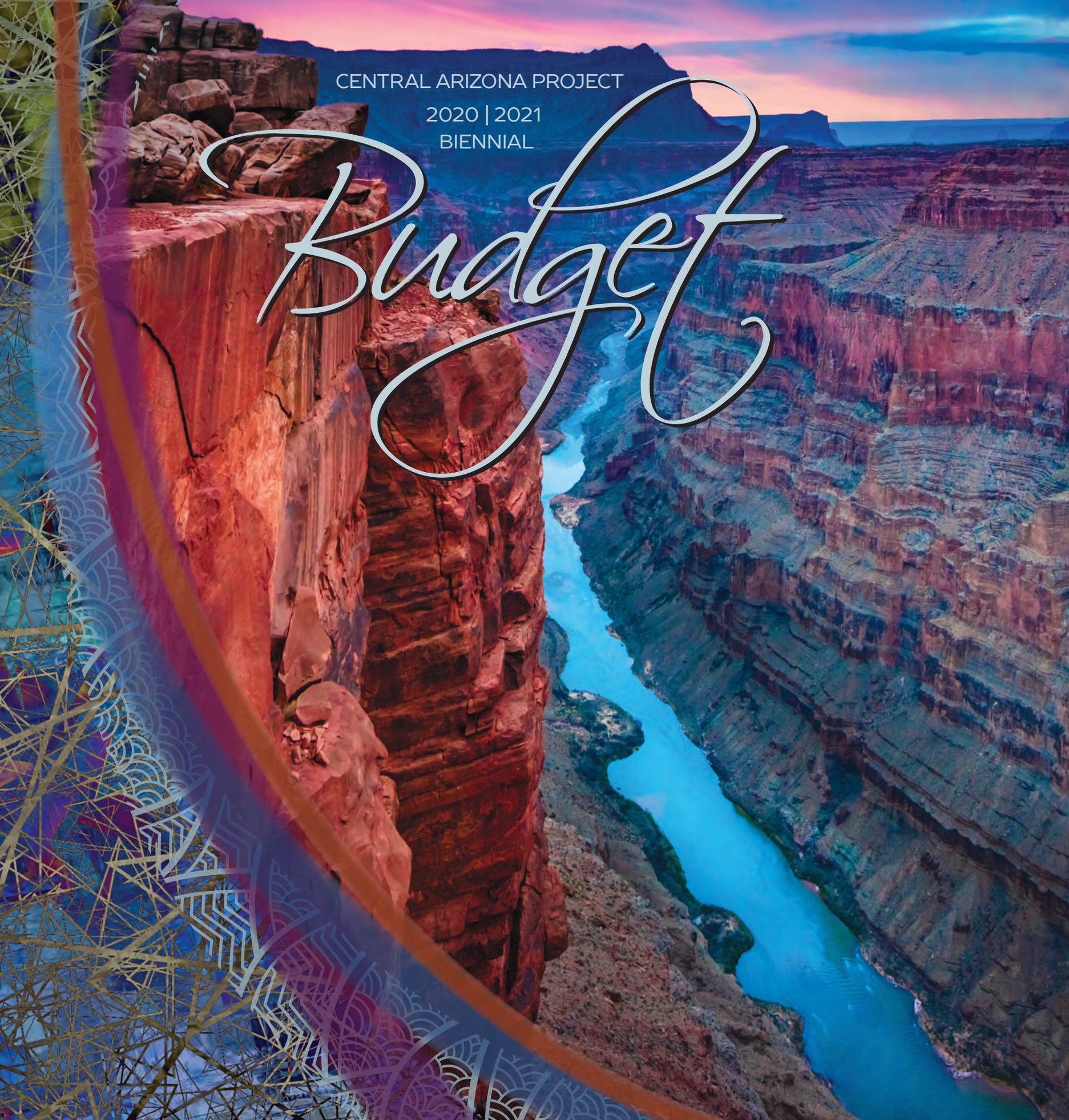
CENTRAL ARIZONA PROJECT
2020 | 2021
BIENNIAL
Budget

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Special Recognition:

Fritz Communications — *Design*
Tina Brown — *Finance - Internal Design / Layout*
Vicky Campo / Travis Dins — *Communication Representatives*
Philip Fortnam — *Photography (CAP Locations)*

Colorado River - Havasupai Falls

How to Use the Biennial Budget

The Central Arizona Water Conservation District (CAWCD or District), also known as the Central Arizona Project (CAP), presents the 2020 / 2021 Biennial Budget in one cohesive document. The budget document includes the following sections:

Executive Summary provides a high-level overview of the District to better understand the business and key issues. The section includes the General Manager's Letter, the CAWCD Board of Directors and the CAP Profile.

Biennial Budget Overview provides an overall summary of the District's revenues, expenses and capital expenditures. Selected financial data is provided as well.

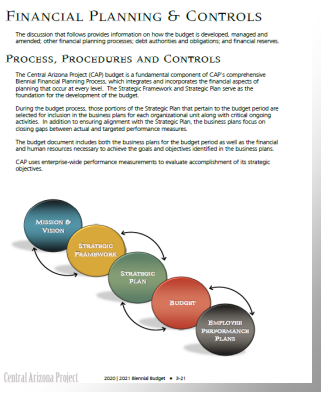
Planning & Authorities reviews the District's planning and control processes, including strategic planning, financial planning and capital planning. The section identifies the District's strategic framework, plan, and performance measures, as well as providing the District's debt authorities, obligations and fund reserves.

Operating Budget provides the budget information for the day-to-day operations of the District for the General Fund, CAGRD Account, Supplemental Water Account and Captive Insurance Fund.

Capital Budget provides an overview of the capital budget as well as Capital Improvement Program profiles.

Organizational Summaries provides departmental budgets and their business goals and accomplishments.

Appendix provides supplemental information such as water deliveries, rate schedule, pumping power costs, debt schedules, reconciliation of operations, maintenance & replacement (OM&R) costs, district policies, county profiles and helpful glossary.


FINANCIAL PLANNING & CONTROLS

The discussion that follows provides information on how the budget is developed, managed and amended; other financial planning processes; debt authorities and obligations; and financial reserves.

PROCESS, PROCEDURES AND CONTROLS

The Central Arizona Project (CAP) budget is a fundamental component of CAP's comprehensive Biennial Financial Planning Process, which integrates and incorporates the financial aspects of planning that occur at every level. The Strategic Framework and Strategic Plan serve as the foundation for the development of the budget.

During the budget process, those portions of the Strategic Plan that pertain to the budget period are selected for inclusion in the business plans for each organizational unit along with critical ongoing activities. In addition to ensuring alignment with the Strategic Plan, the business plans focus on closing gaps between actual and targeted performance measures.

The budget document includes both the business plans for the budget period as well as the financial and human resources necessary to achieve the goals and objectives identified in the business plans.

CAP uses enterprise-wide performance measurements to evaluate accomplishment of its strategic objectives.

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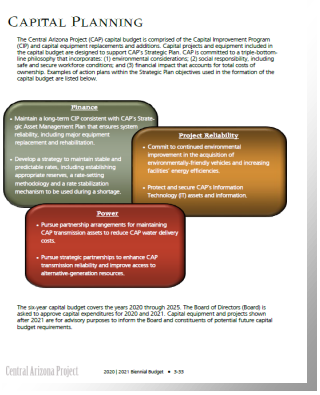
CAPITAL PLANNING

The Central Arizona Project (CAP) capital budget is comprised of the Capital Improvement Program (CIP) and capital equipment replacements and additions. Capital projects and equipment included in the capital budget are designed to support CAP's Strategic Plan. CAP is committed to a triple-bottom-line philosophy that incorporates: (1) environmental considerations, (2) social responsibility, including safe and secure workforce conditions; and (3) financial impact that accounts for total costs of ownership. Examples of action plans within the Strategic Plan objectives used in the formation of the capital budget are listed below.

Finance
- Maintain a long-term CIP consistent with CAP's Strategic Asset Management Plan that ensures system reliability, including major equipment replacement and rehabilitation.
- Develop a strategy to maintain stable and predictable rates, including establishing appropriate reserves, a rate-setting methodology and a rate stabilization mechanism to be used during a shortage.

Project Reliability
- Commit to continued environmental improvement in the acquisition of environmentally-friendly vehicles and increasing facilities' energy efficiencies.
- Protect and secure CAP's Information Technology (IT) assets and information.

Power
- Pursue partnership arrangements for maintaining CAP transmission assets to reduce CAP water delivery costs.
- Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative-generation resources.

The six-year capital budget covers the years 2020 through 2025. The Board of Directors (Board) is asked to approve capital expenditures for 2020 and 2021. Capital equipment and projects shown after 2021 are for advisory purposes to inform the Board and constituents of potential future capital budget requirements.

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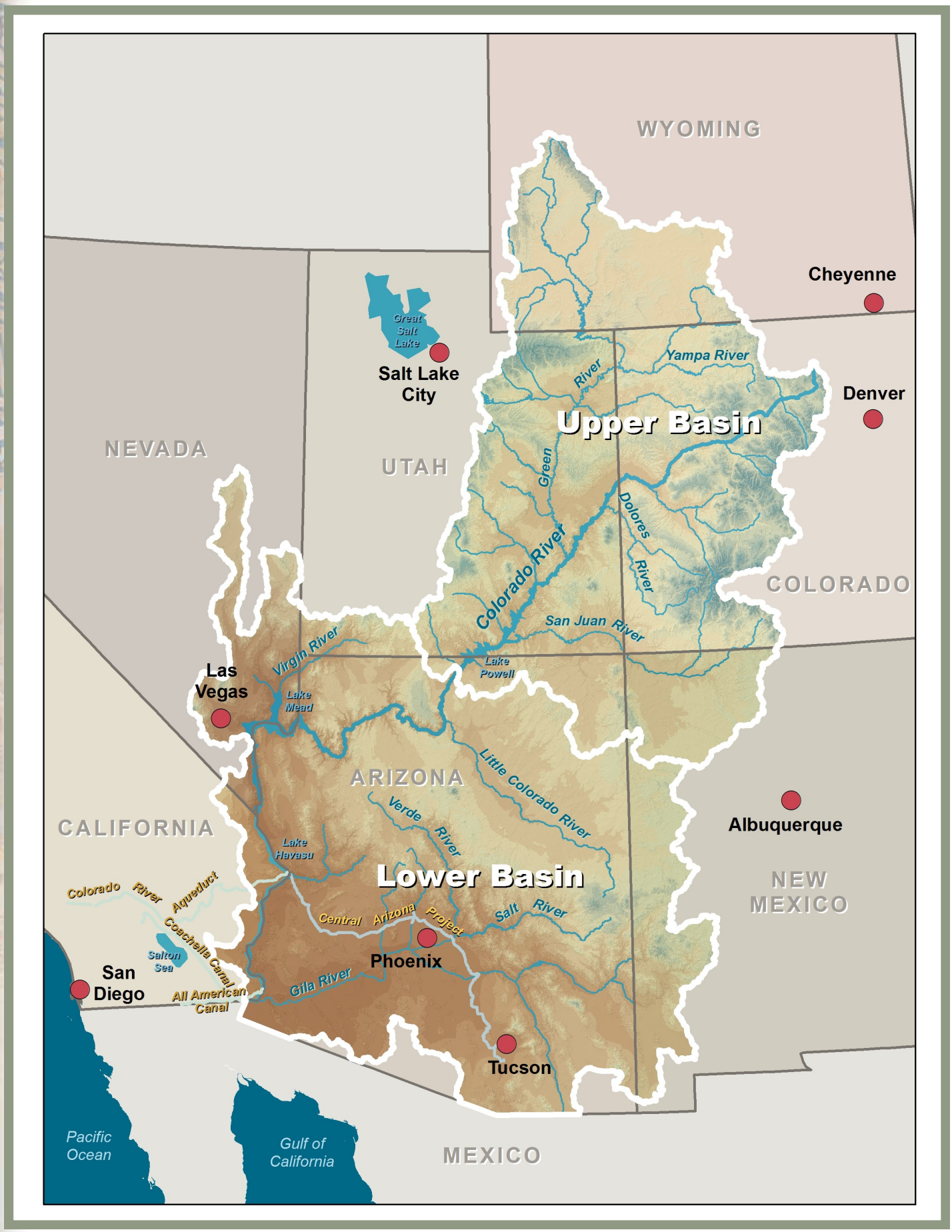

WYOMING
Cheyenne
Great Salt Lake
Salt Lake City
Yampa River
River
Denver
Upper Basin
NEVADA
UTAH
Green
Dolores
River
Colorado River
COLORADO
San Juan River
Virgin River
Las Vegas
Lake Powell
Lake Mead
Little Colorado River
ARIZONA
Albuquerque
Verde River
CALIFORNIA
Lake Havasu
Lower Basin
NEW MEXICO
Colorado River Aquaduct
Central Arizona Project
Salt River
Coachella Canal
Salton Sea
Phoenix
San Diego
All American Canal
Gila River
Tucson
Pacific Ocean
Gulf of California
MEXICO

November 2019

To our Board, Customers and Constituents

The 2020 / 2021 Biennial Budget is the eighth budget we have prepared since the Central Arizona Water Conservation District (CAWCD or District) Board of Directors adopted a two-year financial planning cycle. The two-year process has worked well for us, and allows the Board and staff to concentrate primarily on the budget during the odd years, and address other financial planning matters, such as strategic planning, water rates, reserves and financing strategy in the even years. The work done during one part of the cycle complements the work done in the other part, with the decisions made and information created in one process becoming the inputs and assumptions for the processes in alternate years. Our biennial budgets identify our goals and objectives, key issues and challenges, opportunities to explore and the direction of future initiatives. Under the policy guidance of the CAWCD Board and with the collaboration of Central Arizona Project (CAP) water users and stakeholders, we are confident that our management and delivery of the portion of Arizona's Colorado River water entrusted to us will be successfully achieved.

Our Board last updated the CAP Strategic Plan in 2016. As with previous CAP budgets, the Strategic Plan is the basis for the 2020 / 2021 Biennial Budget. The plan identifies the strategic issues, objectives and associated action plans that are critical to carrying out our mission. These action plans are organized under six Key Result Areas (KRAs):

- Leadership & Public Trust
- Finance
- Project Reliability
- Water Supply
- Power
- Replenishment

During the upcoming year, the Board of Directors will undertake the development of a new CAP Strategic Plan. 2019 has been a year of paradigm shifts, including the closure of Navajo Generating Station (NGS), our long-time primary source of electricity to move CAP water; the adoption of the Colorado River Basin Drought Contingency Plan (DCP) that will improve the reliability of our Colorado River supply, but do so by requiring us to leave more of it in Lake Mead; the completion of a significant water credit purchase and long-term lease and exchange agreement for our Replenishment division; and a growing focus on the capacity to recover supplies stored underground for times of shortage and the introduction of non-CAP supplies into our system. With the world changing around us, it is incumbent on CAWCD to update its strategic focus on new goals that will carry us well into the future.

Water Supply continues to be the KRA at the forefront of everything we do. Since 100% of CAP's water supply comes from the Colorado River, there has been renewed emphasis on how the seven Colorado River Basin states, the U.S. Bureau of Reclamation (Bureau, Reclamation, or BOR) and the Republic of Mexico manage this critical resource. Despite a historically wet winter in 2019, the region remains in the grip of a twenty-year drought. While recent precipitation may alleviate the

need for reductions in 2020 (and possibly 2021), the long-term outlook still requires our constant vigilance. Adoption of the DCP buys us time to address the ongoing overallocation, or "structural deficit", in the Lower Basin, but there is still much work to be done to secure our long-term water future. Reconsultation on the 2007 Guidelines, which expires in 2026 along with the DCP, is required to begin no later than the end of 2020.

Power is another component of our Strategic Plan that will require an incredible amount of attention. For years, NGS has been a reliable and affordable source of power for the majority of CAP water deliveries. This coal-fired power plant was originally intended to operate until 2044; however declining natural gas prices and increasingly cost-effective renewable energy alternatives have made the continued operation of the plant economically unfeasible, forcing its closure in 2019. For the first time in its history, CAP will now be required to secure nearly all of its power on the open market, which simultaneously allows us to take advantage of lower energy costs but subjects the system to the potential for more price volatility. The Board has adopted a portfolio that includes traditional and renewable resources in response to the NGS closure. Additionally, CAP staff has already begun to lock in favorable pricing and availability in the future through the use of reverse energy auctions. CAP continues to expand and refine its energy procurement in this quickly-changing environment, but the early indications are that our customers will enjoy lower energy costs built into the water delivery rates for the foreseeable future.

The Replenishment KRA also achieved a significant milestone in 2019, when the Central Arizona Groundwater Replenishment District (CAGRD) entered into an agreement with the Gila River Indian Community (GRIC) and Gila River Water Storage LLC (GRWS) to secure a substantial wet water supply through 2044. This historic partnership between GRIC/GRWS and CAGRD provides 33,185 acre-feet per year of water (which is approximately equal to our annual replenishment obligation) for 25 years and another 70,375 Phoenix Active Management Area long-term storage credits. Work continues on identifying and acquiring additional supplies. 2020 will mark the "mid-plan review" of CAGRD's current 10-year plan, which is an opportunity to reevaluate the assumptions in the current plan and affirm its effectiveness.

The Finance KRA is interwoven with initiatives from each of the other KRAs; for example, the GRIC/GRWS deal has an initial cost of $95 million. While CAGRD was able to cover up to $75 million with existing reserves, the balance required a financing mechanism. Finance staff worked diligently to secure an outside loan at a favorable interest rate, which allows CAGRD to gain some experience in the credit market and retain flexibility to act if additional opportunities present themselves in the future.

The closure of NGS will also place additional fiscal challenges on CAP stakeholders. Previously, excess energy sold by NGS could be utilized to offset a portion of the annual Repayment

obligation to the federal government for the construction costs of the CAP system. With the elimination of this revenue source, the obligation of Repayment can only fall to two remaining sources: Capital Charges to M&I Customers and Property Taxes. Balancing the desires of various stakeholder groups will continue to be a challenge we wrestle with in the post-NGS world. We will continue to maintain flexible rate-setting policies and put rate stabilization resources into place to offset not only the loss of NGS, but also the potential impact of shortages in the future.

There is one potential fiscal challenge on the horizon that it is too important to pass over. We continue to be concerned by the delay in the reallocation of a portion of the Non-Indian agriculture (NIA) pool water, which when approved, will immediately generate $50 million in additional revenue from back capital charges on the reallocated water. Should reallocation not be approved by the Bureau of Reclamation in 2021 as currently expected, CAWCD will not have the planned revenues to pay for the 9(d) Debt that CAP assumed on behalf of irrigation districts under the Arizona Water Settlement Act.

Project Reliability is all about maintaining reliable deliveries and minimizing unplanned outages. In the upcoming budget cycle, we will begin to explore data integration options that will improve our predictive abilities in maintaining the system and help us continue to move away from reactive repairs. We continue to be engaged in a series of system-wide replacements of infrastructure components which, in many cases, are "original equipment" and on the order of 30+ years old. These include everything from valves, motor and pump components, communications equipment and protective relays to fire protection, underground siphon coatings and more. Additionally, we will need to continue to invest substantial resources into ensuring we have a world-class staff to keep the water flowing, even as demographics in the workforce and the labor market in which we participate are changing. Our award-winning Apprenticeship Program continues to produce highly-qualified craftsmen. We will also be entering into our sixth year of the Supervisor Academy, a comprehensive training program for new supervisors, as well as the second cohort of our Manager University. In 2020, we will seek recertification as a Voluntary Protection Program (VPP) STAR workplace, as safety continues to be one of our core initiatives.

In recent years, the existence of CAP has generated an economic benefit approaching **$100 BILLION PER YEAR,** accounting for at least one-third, and sometimes more, of the entire Arizona gross state product.

Approximately 1/3 of Arizona's Gross State Product ($100 million annually) can be attributed to the economic benefit provided by the delivery of CAP water, according to study by Arizona State University. Over 80% of the state's population lives within our service area. The Colorado River water that we deliver supplies one of the great agribusiness hubs in America. With this kind of reach, it is critical that we demonstrate Leadership and Public Trust in everything we do. In making important decisions, we value our stakeholders' feedback, and as a result, we have made it easier than ever for them to become engaged.

Through the work of a Customer Service Task Force established by the Board, we have identified opportunities to improve customer service processes and stakeholder involvement. Examples include quarterly Roundtables to discuss topics of importance to CAP customers, routine publication of a 45-day "look ahead" on matters that will be coming before the CAWCD Board, "Electronic Blue Cards" which allow stakeholders to provide public comment even if they cannot physically attend our public meetings and customer service feedback cards. These recent improvements complement earlier changes made, such as live-streaming our Board meetings. By improving the avenues by which we communicate, it our intent to be as transparent and focused in our messaging to stakeholders as possible.

Our strategies and action plans are described in greater detail in the following pages, along with the accomplishments we have already seen to date. We believe this document will not only communicate our fiscal and operational health to you, but it will also serve as our financial plan, our policy guide and a key part of our strategy for moving into the future.

We take pride in this publication and we are pleased to share this latest edition with all of you. Our ability to excel depends on the continued support and guidance of our Board and on the feedback we receive from our customers, constituents and employees. We believe we have developed a strong, reliable plan that will serve our community well in the near term and position us for success as we venture into a post-NGS, post-DCP world.

Theodore C. Cooke
General Manager

The CAWCD Board of Directors

Lisa A. Atkins
President

Terry Goddard
Vice President

Sharon B. Megdal, Ph.D.
Secretary

Maricopa County

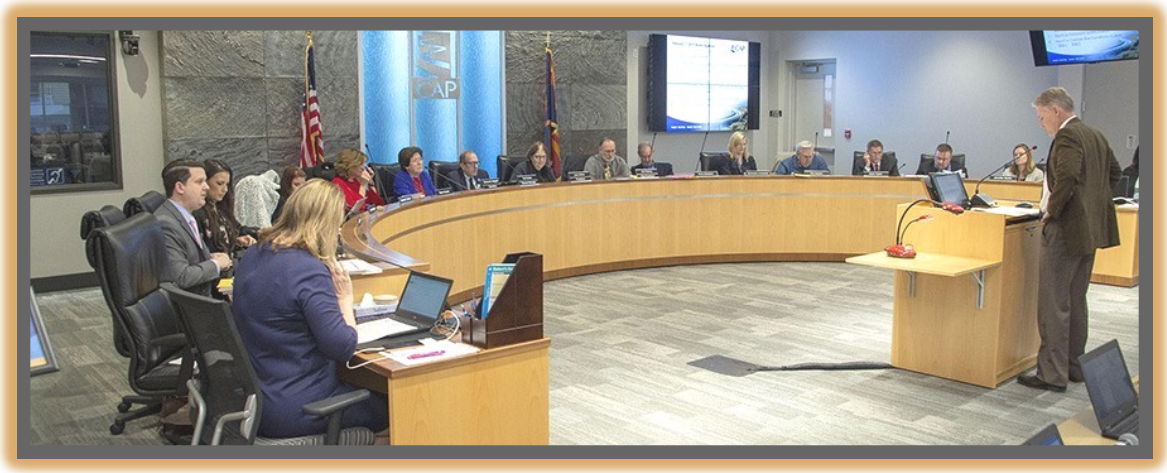
A.	Alexandra Arboleda	Term Ending 2022
B.	Lisa A. Atkins	Term ending 2024
C.	Jennifer Brown	Term ending 2022
D.	Terry Goddard	Term ending 2024
E.	Benjamin W. Graff	Term ending 2022
F.	Jim Holway	Term ending 2022
G.	Mark Lewis	Term ending 2022
H.	Heather Macre	Term ending 2024
I.	Jennifer Martin	Term ending 2024
J.	April Pinger	Term ending 2024

Pima County

K.	Karen Cesare	Term ending 2020
L.	L.M. "Pat" Jacobs IV	Term ending 2020
M.	Sharon B. Megdal, Ph.D.	Term ending 2020
N.	Mark Taylor	Term ending 2020

Pinal County

O.	Jim Hartdegen	Term ending 2020



CAWCD Governance

CAWCD is a municipal corporation and is governed by a 15-member popularly-elected Board. Board members are elected from Maricopa (10), Pima (4) and Pinal (1) counties. Members serve staggered six-year terms and are not compensated for their time. Subsequent to each election (five members are elected every 2 years), the Board elects the President, Vice President and Secretary of the Board as well as the remaining members on the Executive Committee. The Board meets monthly and has 5 established committees.

Executive Committee

The Executive Committee is comprised of the President, Vice President, Secretary, Immediate Past President and two Board Members elected by the Board with all three counties represented among the membership. The Committee does not meet regularly, but may be called to handle emergencies between Board meetings and to make recommendations to the Board. All actions of the Executive Committee are subject to ratification by the Board.

Finance, Audit & Power Committee

The Finance, Audit and Power Committee (FAP) is chaired by the Board Vice President and provides assistance to the Board in fulfilling its responsibilities to the electorate relating to accounting and reporting, the quality and integrity of the District's financial reports, and the budgetary and fiscal practices of the district, operational security, energy risk management and other power and transmission matters. The Committee also oversees the Internal and Independent Auditors for the District.

CAGRD and Underground Storage Committee

The Central Arizona Groundwater Replenishment District (CAGRD) and Underground Storage Committee is chaired by the Board Secretary and provides assistance to the Board by addressing issues, policies and proposed legislative amendments relating to the CAGRD's responsibilities and authorities and CAWCD's underground storage and recovery activities.

Public Policy Committee

The Public Policy Committee is chaired by a Board member appointed by the Board President and provides recommendations to the Board for positions on state legislative issues, federal legislative issues and other public policy issues.

Nominating Committee

The Nominating Committee meets in January of odd years to provide recommendations to the Board for the election of officers and Executive Committee Members. The Committee is comprised of three Board Members appointed by the Board President.

Special Committees

In addition to the established committees, the Board President may appoint Special Committees to make recommendations to the Board on issues of significance or to carry out directives of the Board.

In recent years, these special committees have been referred to as Task Forces, and have been created with a specific scope to address a pertinent policy topic and make recommendations to the Board.

Previous Task Forces have included:

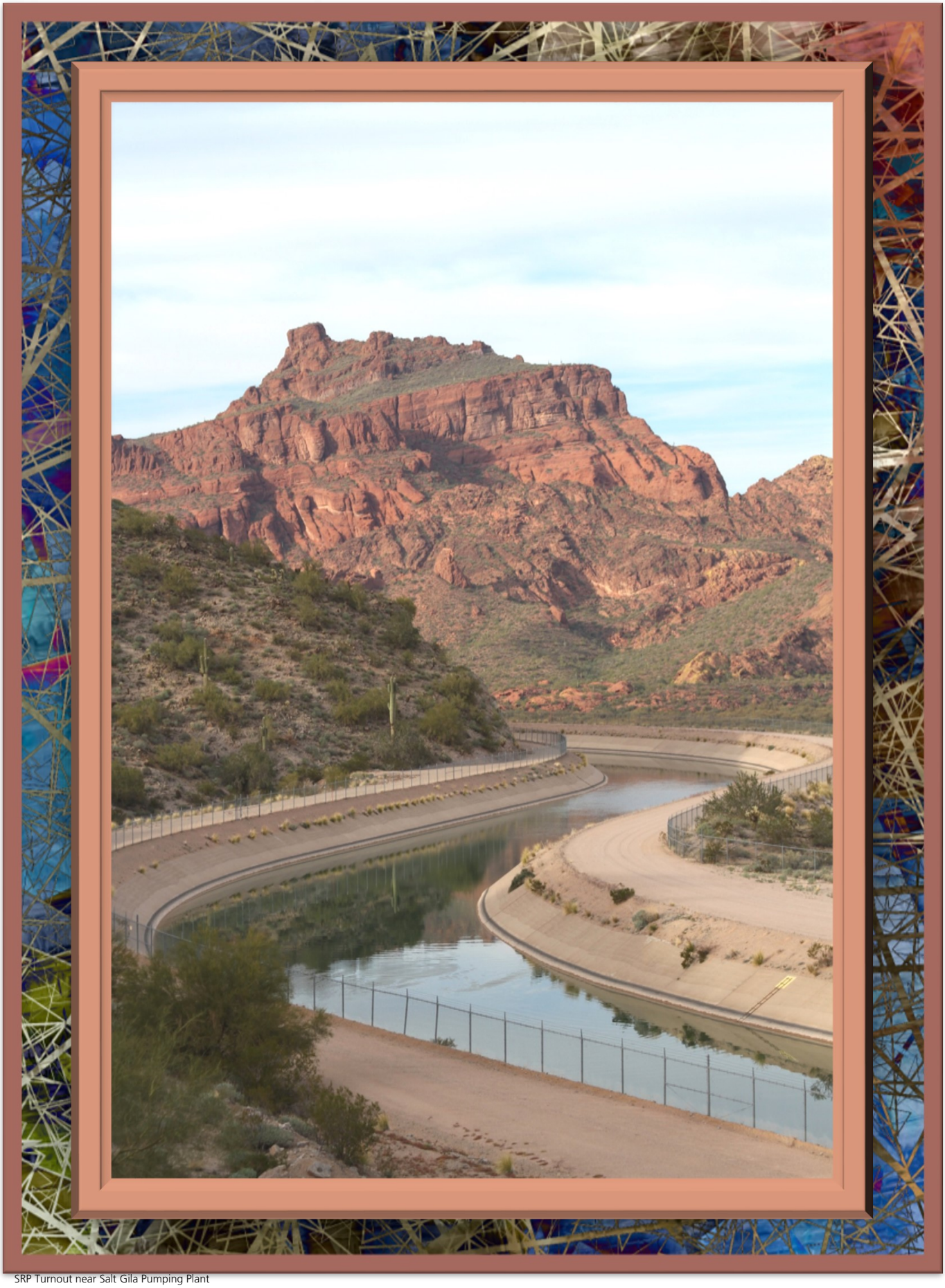
- Communications Task Force
- Power Task Force
- Excess Water Task Force
- Water Quality Task Force
- Customer Service Task Force

CAP Logo from Headquarters' Board Room

GFOA Award

The Government Finance Officers Association (GFOA) of the United States and Canada presented a Distinguished Budget Presentation Award to the Central Arizona Water Conservation District for its Biennial Budget for the Biennium beginning January 1, 2018. In order to receive this award, a government unit must publish a budget document that meets program criteria as a policy document, as an operational guide, as a financial plan and as a communication device.

This award is valid for a period of two years. Central Arizona Project believes the current budget continues to conform to program requirements and will be submitting it to the GFOA to determine its eligibility for another award.



SRP Turnout near Salt Gila Pumping Plant

Who We Are

Our Mission

Central Arizona Project is the steward of central Arizona's Colorado River water entitlement and a collaborative leader in Arizona's water community.

Our Vision

Central Arizona Project will be a collaborative, innovative leader in the management and the delivery of water to central Arizona. It will enhance the state's economy and quality of life and ensure sustainable growth for current and future populations of Arizonans.

Our Values

Reliability: We will plan for every drop of Colorado River water available to us

Leadership: We will be a leader in local and regional water issues

Our Employees: Our employees are our most important resource

The Public Trust: We respect the trust we have earned from our constituents

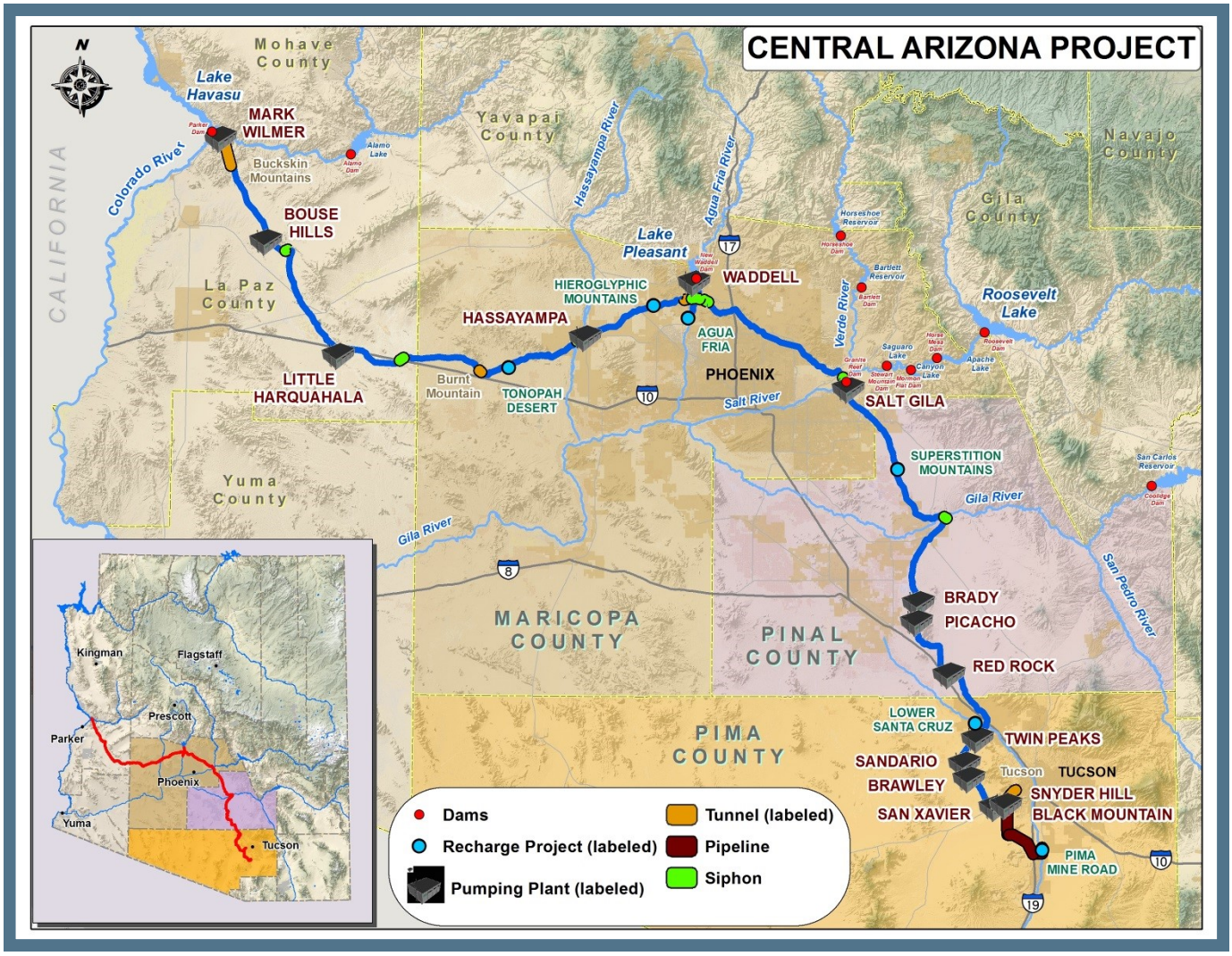
The Environment: We will operate in an environmentally responsible manner

Our Beliefs

Central Arizona Project employees work with pride to create a safe, supportive and friendly workplace. We believe in:

- Employees who are reliable and principled
- Service that is topnotch for our internal and external customers
- Work done professionally and responsively
- Relationships among employees and customers that are collaborative and innovative
- Community connection through volunteerism, charitable contributions and public education

The CAP System



Aqueduct	Length (Miles)	Pumping Plants	Lift (Feet)	Tunnels & Siphons	Turnouts
Hayden-Rhodes	190	5	1,251	10	17
Fannin-McFarland	63	1	86	1	20
Tucson	83	9	1,569	1	17
Totals	336	15	2,906	12	54

CAP Profile

Central Arizona Project (CAP) was created in 1971 as the Central Arizona Water Conservation District (CAWCD), pursuant to state law. CAWCD is a three-county water conservation district. While generally having the same authority as a municipal corporation, CAWCD is a special district with duties focused on managing and providing water to a large region. CAWCD is the largest supplier of renewable water supplies in the state of Arizona. It is the state's largest contractor of Colorado River water with an entitlement of nearly 1.5 million acre-feet during normal supply conditions. An acre-foot of water is equal to approximately 326,000 gallons, enough water to serve about three average homes for a year in the CAP service area.

Check Structure 23 in Scottsdale

Purposes of CAWCD

CAWCD has three primary purposes. First, it is the steward of central Arizona's Colorado River water entitlement and a leader in Arizona's water community. The District often projects 50 to 100 years into the future in preparation for meeting the current and future water needs for CAWCD customers by: (a) focusing on understanding the current and future reliability of Colorado River supplies; (b) assessing current and future water needs in the CAWCD service area; (c) identifying the mechanics of storing water underground and recovering it for future use, and; (d) identifying additional renewable water supplies that could be brought into the CAWCD service area.

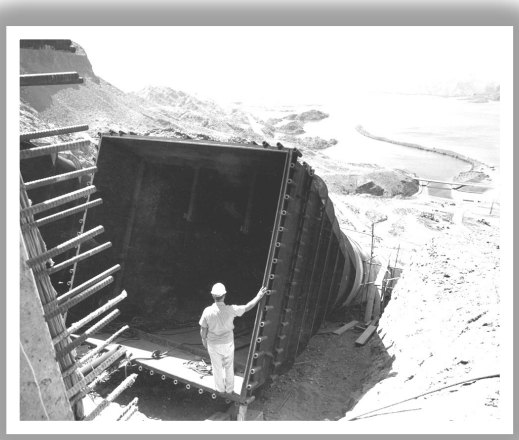
Second, CAWCD delivers Arizona's share of Colorado River water through a conveyance system that it also operates and maintains. The CAP aqueduct begins at the Arizona-California border near the confluence of the Bill Williams and Colorado Rivers at Lake Havasu and extends east and then south past Tucson to the Tohono O'odham Nation. The CAP system includes approximately 336 miles of aqueduct, 15 pumping plants, 12 tunnels and siphons and 54 turnouts. Using its pumps, CAP lifts water nearly 3,000 feet from the Colorado River to the CAP terminus just south of Tucson.

Finally, CAWCD is responsible for repaying the federal government those reimbursable costs associated with the construction of CAP. Over time, CAWCD's statutory responsibilities have expanded to include authorization to provide groundwater replenishment services through the CAGRD, and to build, operate and maintain underground storage projects as well as being a recovery agent of stored water.

CAP History

During the early 1900's, the seven states of the Colorado River Basin - Arizona, California, Nevada, New Mexico, Wyoming, Colorado and Utah - negotiated for shares of Colorado River water. In 1922, representatives from the seven states and the United States government created the Colorado River Compact, which divided the states into lower and upper basins and gave each basin 7.5 million acre-feet of water to annually apportion. Arizona, California and Nevada were sectioned into the Lower Basin and were instructed to divide the 7.5 million acre-foot allotment among themselves.

Lyndon B. Johnson signing CAP Construction bill



Early Construction at Mark Wilmer Pumping Plant in Havasu

Early Construction at Mark Wilmer Pumping Plant in Havasu

Arizona was in dispute over its share of the Colorado River, however, and was the last state to approve the Compact in 1944. Today in the Lower Basin, Arizona has rights to 2.8 million acre-feet of Colorado River water per year, California is entitled to 4.4 million acre-feet per year and Nevada has an annual allocation of 300,000 acre-feet.

In 1946, the Central Arizona Project Association was formed to educate Arizonans about the need for CAP and to lobby Congress to authorize its construction. It took the next 22 years to do so and in 1968, President Lyndon B. Johnson signed a bill approving construction of the CAP. The bill provided for the U.S. Bureau of Reclamation (Bureau) of the Department of the Interior to fund and construct CAP and for another entity to repay the federal government for certain costs of construction when the system was complete.

In 1971, CAWCD was created to provide a means for Arizona to repay the federal government for the reimbursable costs of construction and to manage and operate CAP. Construction began at Lake Havasu in 1973 and was completed 20 years later south of Tucson. The entire project cost approximately $4 billion to construct.

Tucson Groundbreaking Celebration

CAWCD Water Users

Through the CAP system, CAWCD delivers Colorado River water to many different types of customers throughout its three-county service area, encompassing Maricopa, Pima and Pinal counties. CAWCD's expansive service area includes approximately 5.5 million people, roughly 80% of the state's population, and spans 24,000 square miles of land, which is 20% of the state's area.

CAP's Headquarters is located along their aqueduct in north-central Phoenix, the capital of Arizona.

CAP delivers water pursuant to delivery agreements between the federal government, Municipal and Industrial (M&I) and tribal stakeholders. Long-term contracts total 1.415 million acre-feet of water, and in addition, excess water is made available for specific agricultural customers. Historically, the combined deliveries totaled about 1.5 million acre-feet of water annually though this amount has decreased to about 1.4 million acre-feet in recent years.

Agricultural (Ag) Customers

Representing three of Arizona's five "Cs"— Cattle, Citrus and Cotton — agriculture in Arizona is a multi-billion dollar industry. According to a 2014 study by the University of Arizona's College of Agriculture & Life Sciences, agriculture contributes more than $17 billion to state output. CAP's agricultural customers are primarily large irrigation districts that deliver water to farmers.

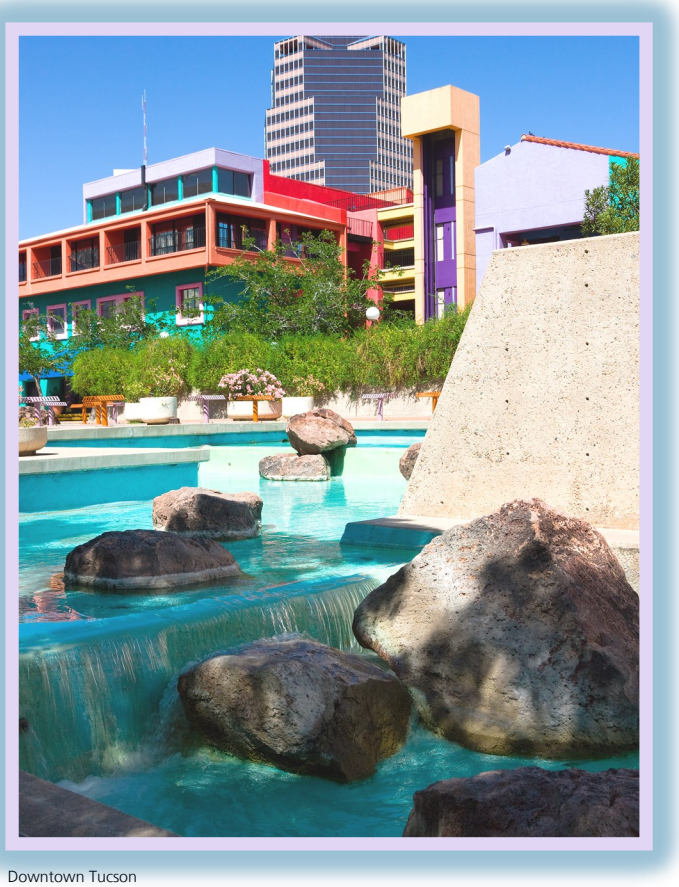
	Maricopa	Pima	Pinal	Arizona
2000 Population	3,072,149	843,746	179,727	5,130,632
2010 Population	3,824,058	981,168	376,369	6,401,569
2017 Population	4,221,684	1,026,099	427,603	6,965,897
2055 Projected Population	6,414,083	1,277,075	1,181,033	10,504,530
Percent change projected between 2017 and 2055	51.93%	24.46%	176.2%	50.8%
2017 Labor Force *(non-farm)*	2,134,987	475,622	168,806	3,312,720
2017 Land Area *(square miles)*	9,222	9,184	5,374	113,635
2017 Unemployment Rate	4.2%	4.5%	5.0%	4.9%

Based on latest information available from the 2018 Arizona Commerce Authority (https://www.azcommerce.com/locate/county-profiles/ - Last Updated 10/01/2018) and 2055 data based on information from Office of Economic Opportunity (https://population.az.gov/population-projections).

CAP reserves and makes available a volume of excess water (currently 225,000 acre-feet) for specific agricultural customers. As part of the Arizona Water Settlements Act (AWSA), agricultural users of CAP water relinquished their long-term non-Indian Agriculture allocations in exchange for a limited volume of water reserved for their exclusive use. Commonly referred to as the Ag Settlement Pool, this volume of water will decline over time, and is available to CAP's agricultural customers through 2030. Ag Settlement Pool use currently represents about 20% of CAP deliveries.

As with other stakeholders, CAP reaches out regularly to the agricultural community through informational meetings, tours and other briefings. This communication ensures that CAP learns of issues that are important to Arizona agriculture and likewise informs agricultural customers of issues confronting CAP.

More information visit: CAP-AZ.com > Departments >Water Operations > Allocations



Downtown Tucson

Municipal & Industrial Subcontractors

CAP does not treat water for drinking, but rather is the wholesaler that provides water to cities, water utilities and other entities. After treating the water, cities deliver it to residents. More than 50 cities and private water companies utilize CAP supplies to augment their water supplies, including Arizona's largest cities: Phoenix, Tucson, Mesa, Chandler, Glendale and Scottsdale. CAP M&I subcontract allocations total more than 620,000 acre-feet. Most M&I customers take delivery of their full CAP allocation each year, either directly or through underground storage agreements. As cities build treatment plants and water delivery infrastructure, they are able to use more of their allocated subcontract water.

CAP conducts regular tours and informational meetings to reach out to its M&I customer base, and CAP staff members periodically tour customer facilities to learn more about their operations and water management. In addition, CAP sends out a monthly newsletter to municipal partners.

More information visit: CAP-AZ.com > Departments > Water Operations > Allocations

Tribal Stakeholders

CAP is the largest single provider of Colorado River water to tribal water users in the river system, delivering water to Indian communities in central and southern Arizona. Almost half (46%) of CAP's water supply is designated to Indian tribes. This water is used for a variety of purposes, including municipal (i.e., residential), farming, leases to cities and underground storage.

Although there are 22 tribes in Arizona, only thirteen currently have partially or fully resolved water right claims. CAP, along with other stakeholders, continues to engage in settlement discussions with the tribes, nine of which still have unresolved claims. Four other tribes hold senior Colorado River rights adjudicated in *Arizona v. California*.

CAP is working to develop long-term relationships with tribal communities through outreach efforts that include invitations to tours, informational meetings and other public events. As relationships with the tribes have grown and continue to develop, CAP has organized and participated with several organizations in events with a tribal emphasis.

More information visit: CAP-AZ.com > Tribal Water

Central Arizona Groundwater Replenishment District

CAGRD has a statutory obligation to replenish groundwater used by members in CAP's three-county service area. Created in 1993, CAGRD must replenish groundwater withdrawals made by new developments enrolled in the CAGRD, and water providers and homeowners agree to pay the cost to replenish any amount of groundwater pumped beyond limitations set by the state. CAGRD currently replenishes groundwater on behalf of 24 member service areas (MSA) and 1,160 member land (ML) subdivisions representing approximately 284,000 homes.

More information visit: CAGRD.com

Pima Mine Road Recharge Site

Arizona Housing Developments

Colorado River

CAP Revenue Sources

CAWCD collects revenues primarily through the sale of water, through collection of property taxes, and through interest on investments held at the Arizona State Treasurer's office. The CAWCD Board establishes water delivery rates at a level to operate, maintain, repair, and replace CAWCD infrastructure. CAWCD also operates several underground storage facilities or recharge sites and collects revenues from those customers that utilize the sites to cover the costs of operating the facilities. In addition, CAWCD collects rates, fees and dues from CAGRD customers that have joined the CAGRD as a means to meet their assured water supply requirements.

CAWCD is authorized to assess two property taxes:

- A general ad valorem tax can be assessed up to $0.10 per $100 of assessed valuation in Maricopa, Pinal and Pima counties
- A water storage tax can be assessed up to $0.04 per $100 of assessed valuation

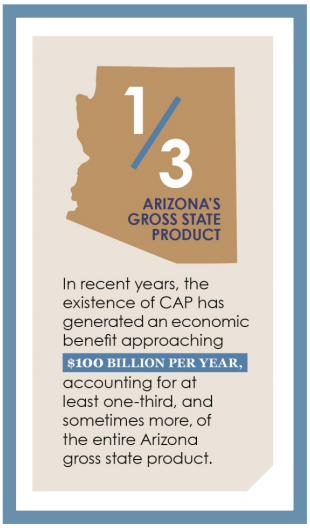
Proposition 117 took effect in tax year 2015, which established that a property's net assessed valuation (NAV) will be taxed based on the Limited Property Value (LPV). This proposition limits the annual growth in the LPV of all locally assessed property to 5%.

Tax Year July-June	Maricopa County NAV/LPV ($M)	% Growth	Pinal County NAV/LPV ($M)	% Growth	Pima County NAV/LPV ($M)	% Growth	Total NAV/LPV ($M)	% Growth
2015	$34,624	-1.3%	$2,058	0.8%	$7,620	0.5%	$44,302	-0.9%
2016	$36,135	4.4%	$2,120	3.0%	$7,817	2.6%	$46,072	4.0%
2017	$38,252	5.9%	$2,239	5.6%	$8,075	3.3%	$48,566	5.4%
2018	$40,423	5.7%	$2,355	5.2%	$8,334	3.2%	$51,113	5.2%
2019	$43,194	6.9%	$2,521	7.0%	$8,730	4.8%	$54,446	6.5%
2020	$45,701	5.8%	$2,696	6.9%	$9,229	5.7%	$57,626	5.8%
2021	$48,269	5.6%	$2,875	6.7%	$9,701	5.1%	$60,846	5.6%
2022	$50,959	5.6%	$3,060	6.4%	$10,107	4.2%	$64,126	5.4%
2023	$53,815	5.6%	$3,243	6.0%	$10,389	2.8%	$67,447	5.2%

Sources: CAP; Maricopa County; Pinal County; Pima County; Elliott D. Pollack & Company (March 2019)

Economic Impact of CAP to Arizona

CAP's delivery of Colorado River water from 1986 through 2010 has generated in excess of $1 trillion ($1,090,000,000,000) of Arizona's gross state product (GSP), according to a study commissioned in 2014 by CAP with the W.P. Carey School of Business at Arizona State University (ASU). The GSP represents the dollar values of all goods and services produced in the region and are a measurement of the economic output of a state, a counterpart to the gross domestic product (GDP) for the nation. In recent years, the existence of CAP has generated an economic benefit approaching $100 billion per year, accounting for a minimum one-third, and sometimes more, of the entire Arizona GSP.

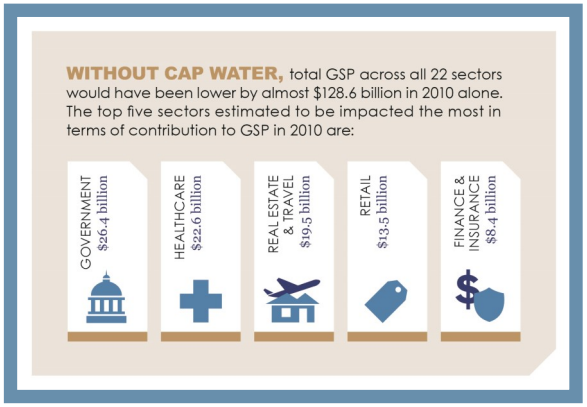


To answer the question, "What if CAP was never built and no CAP water was delivered?", researchers at the L. William Seidman Research Institute of W.P. Carey School of Business at ASU conducted the analysis to estimate the economic value of CAP during:

- Construction period (1973-1993)
- Water delivery period (1986-2010)

Key Findings:

- CAP water deliveries (1986-2010) have accounted for over $1 trillion of Arizona's GSP, approximately 23% of the GSP during this 25-year period.
- In the most recent five years of the study, CAP generated an economic benefit averaging over $90 billion per year, an average of 35% of Arizona's GSP each year.
- In the latest year of the study (2010), CAP generated $128 billion of the GSP, 49.5% of the total for the state of Arizona and more than 1.6 million job-years of employment.
- In 2010 alone, total GSP across all 22 sectors would have been lower by almost $128.6 billion if not for the delivery of CAP water. The top five sectors estimated to have declined the most in terms of contribution to the GSP in 2010 are: Government ($26.4 billion), Healthcare ($22.6 billion), Real Estate & Travel ($19.5 billion), Retail ($13.5 billion) and Finance & Insurance ($8.4 billion).



- During the construction period (1973-1993), CAP generated approximately $2.4 billion of the state's GSP and annual employment of up to 9,400 job years. This dollar value is approximately equivalent to the cost of the reimbursable portion of the CAP construction cost, including interest.

The Colorado River

The Colorado River is the principal water resource diverted for CAWCD and serves as Central Arizona Project water to its customers. CAWCD is currently diverting about 1.6 million acre-feet of Colorado River water annually, and delivers more than 1.4 million acre-feet of CAP water to customers in central and southern Arizona. The Colorado River is the lifeblood of the CAP system.

The Colorado River is one of the most significant and important rivers in North America. It is approximately 1,420 miles in length. It originates in the central Rocky Mountains in Colorado, and flows almost 246,000 square miles and empties into the Gulf of California in Mexico. The Colorado River Basin includes Wyoming, Colorado, Utah, New Mexico, Arizona, Nevada and California, and the states of Baja California and Sonora, in Mexico.

The Colorado River provides economic and environmental benefits across the western United States and northwest Mexico. It provides renewable water supplies for more than 40 million people in communities across the Basin. The economic output of areas served by the Colorado River is estimated to be in excess of $1.5 trillion annually or equivalent to the 12th largest GDP in the world. The River provides irrigation water to more than 4 million acres of crop lands in the United States and Mexico. The Colorado River Basin is an important agricultural region that includes farms that are the "salad bowl" of the U.S. providing 90% of the nation's winter vegetable crop. The dams along the River provide clean, renewable electricity, with annual hydroelectric production exceeding 10 million megawatt hours of electricity per year. The River also provides vital environmental values and recreational benefits. The River is home to more than 10 endangered species in the U.S. and Mexico. Further, the River is the centerpiece of several internationally recognized national parks and recreation areas, including: Rocky Mountain National Park, Grand Canyon National Park, Glen Canyon National Recreation Area, Lake Mead National Recreation Area, Dinosaur National Monument, and the Colorado River Delta and Gulf of California Biosphere Reserve in Mexico.

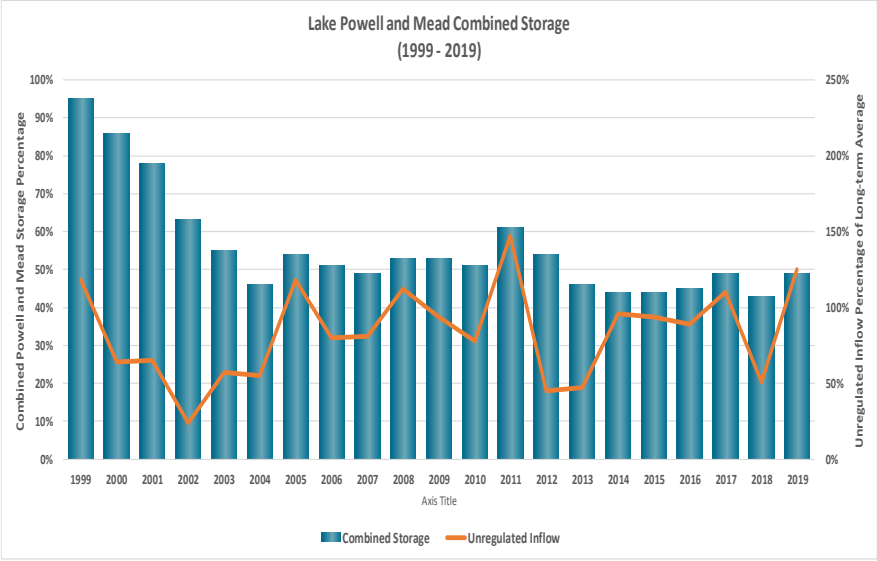
The Colorado River is composed of three major river systems: Green River, Colorado River and the San Juan River. The Colorado River is the lifeblood of the southwestern United States and Northwest Mexico. The annual natural flow from the Colorado River is estimated to be about 14.8

million acre-feet per year, calculated from the long-term average of measurements beginning in 1906. The Green River, with headwaters in the Wind River Range in western Wyoming, contributes 33% of the annual natural flow; the Colorado River mainstem, with headwaters in Rocky Mountain National Park in Colorado, provides about 42% of the annual natural flow; and the San Juan River, with its origins near Durango, Colorado, provides about 13% of the annual natural flow to the River. Additional flows are provided from numerous smaller tributaries including the Virgin River system in Utah, Nevada, and Arizona, and the Bill Williams River in Arizona.

CAWCD is the largest user of Colorado River water in Arizona and the second largest Colorado River water user in the system; more than one-half of Arizona's 2.8 million acre-foot allocation. About one-third of Arizona's economic production can be tied to delivery of CAP water. Arizona's allocation is second only to California's 4.4 million acre-foot allocation. Mexico receives 1.5 million acre-feet of Colorado River water, and Nevada has a right to 300,000 acre-feet of water. Wyoming, Colorado, Utah and New Mexico each have share of the Upper Basin's 7.5 million acre-feet of entitlement; however the Upper Basin routinely only uses about 4.5 million acre-feet annually.

View from Hoover Dam—Lake Mead

The Colorado River system includes 10 major dams and reservoirs. The backbone of the system is comprised of the two largest reservoirs in North America: Glen Canyon Dam/Lake Powell and Hoover Dam/Lake Mead. These two reservoirs have a combined storage capacity of about 50,000,000 acre-feet. They capture flood flows in wet years and release storage during dry years. At the end of 1999, the combined reservoir storage of Lake Powell and Mead was almost 95% of capacity or about 47.5 million acre-feet of storage. However, since that time, due to prolonged drought and full use of the system, the reservoir storage has declined to almost 50% of capacity or about 24 million acre-feet of combined storage.



The decline in reservoir storage is the result of fewer high-flow years than in previous decades. In addition, there is a structural deficit in the system, where normal uses exceed normal supplies in most years. The drought, along with the structural deficit, creates risks to the reliability of the Colorado River supply. Since 2014, water users, including CAWCD, have undertaken efforts to reduce the impacts of drought and the structural deficit by reducing uses of Colorado River water. These efforts include system conservation programs where water users are paid to reduce their use of water and leave water in the Colorado River system. In addition, the Colorado River Basin States, the United States, Mexico and key water users including CAWCD, are now implementing a Drought Contingency Plan. This plan reduces Colorado River diversions to protect critical elevations in Lake Powell and Mead. The plan is working to reduce the near-term and longer-term risks in the Colorado River system.

Colorado River Shortage

The Arizona Department of Water Resources and Central Arizona Project are taking proactive steps to address the risk of Colorado River shortages and improve the health of the river system by working in collaboration with the Colorado River Basin states, federal government, Mexico, and local and regional partners, which include Yuma agricultural and on-river municipal water users in water resource management. Collaboration is focused on reducing the near-term risks caused by the ongoing drought as well as addressing the long-term imbalance between supply and demand on the Colorado River system.

In 2007, to prepare for a possible shortage and to guide Colorado River operations during low reservoir conditions, the seven Colorado River Basin states and the Bureau of Reclamation completed an agreement clarifying the triggers and anticipated reductions during shortage conditions. This document identified the steps to be taken should a shortage be declared. As part of the Shortage Sharing Guidelines, water levels in Lake Mead and Lake Powell are coordinated to allow more efficient management of the Colorado River supply. Water users across the Basin states continue to work together to promote the benefits of conserving Colorado River water.

Frequently Asked Questions:

What is a Colorado River Shortage?

A shortage is an annual reduction in the amount of Colorado River water available to Arizona, Nevada and Mexico and is determined primarily by the elevation of water in Lake Mead. Each month, the Bureau, which manages the Colorado River system, forecasts the elevation of the surface of Lake Mead for the following two years in a document called the 24-Month Study. If the elevation predicted by the August 24-Month Study for January 1st of the following year falls

below an elevation of 1090' based on the updated DCP guidelines, a reduction is declared for the following year (e.g., a Tier Zero was declared for 2020 when the August 2019 prediction showed the end of December 2019 level to be below 1090'). A Tier 1 or lower shortage has not been declared on the Colorado River, but it is perilously close to occurring.

Who will be impacted by the Colorado River Shortage?

A near-term shortage will not impact water supplies for Arizona's cities, towns, industries, mines or tribes using CAP water. It would, however, eliminate CAP water supplies to the Arizona Water Banking Authority (AWBA). It would also reduce a portion of the CAP water supply identified for groundwater replenishment, deliver water available for agricultural users in central Arizona and may cause an increase in CAP water rates. In the face of potential shortage, farmers in central Arizona may choose to offset supply reductions in their CAP supply by using local supplies including pumping groundwater.

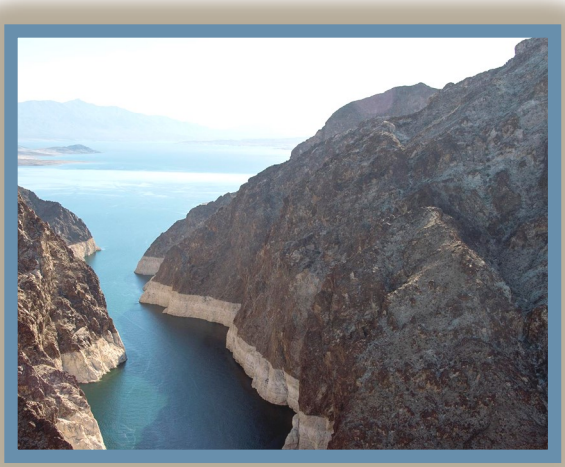
Prior to 2020, Central Arizona Project had been partnering with our stakeholders and the state to voluntarily reduce deliveries by approximately 200,000 acre-feet to leave water in Lake Mead to prevent or delay a shortage declaration. With the newly implemented DCP Guidelines, it is now required to be reduced by 192,000 acre-feet in a Tier Zero shortage.

Should levels in Lake Mead continue to fall even after a shortage has been declared, additional cutbacks to CAP, Nevada and Mexico will occur at elevations 1075', 1050' and 1025'. Arizona Department of Water Resources (ADWR) and CAP are working cooperatively with many other Colorado River users to stop or delay these additional cutbacks by protecting levels in Lake Mead.

Is Arizona prepared for a Colorado River Shortage?

Arizona has been planning for a potential shortage for decades. Since 1996, CAP has worked with the AWBA to store excess CAP water underground to provide back-up supplies for municipal, industrial and tribal water users. More than twice the amount of the Colorado River water that is delivered to central Arizona annually (3.2 million acre-feet, which exceeds a trillion gallons) has been stored to date. CAP, the ADWR and the AWBA have planned to recover and deliver these supplies should the need arise.

View from Hoover Dam—Lake Mead



Lake Mead

Protect Lake Mead

Drought. Over-allocation. Structural deficit. Declining water levels in Lake Mead. These are some of the many complex water challenges facing the southwest, so CAP has been collaborating with the federal government, partner states and Mexico to address these issues; because it is critical that all Colorado River water users, regardless of state, priority, or use sector, work quickly and diligently to protect the river and the communities that rely on its water.

Part of that effort is "Protect Lake Mead," an awareness campaign that is designed to educate the public about these important issues and encourage people to sign up for Lake Mead alerts. This is CAP's way to inform the public about the status of our water supply.

The public service announcements and social media messages contain important information about these issues, including the Five Reasons to Protect Lake Mead:

#1	The Colorado River is suffering an extended drought and over-allocation
#2	Lake Mead water levels are steadily falling
#3	If the lake level continues to fall there will be a shortage
#4	CAP's water supply is cut and costs go up during a shortage
#5	Leaving water in Lake Mead averts a shortage for 2017 through 2019

To date, CAP's collaborative efforts have been successful in avoiding a shortage through 2019, and CAP is committed to continuing those conservation programs that are protecting the levels of Lake Mead and keeping the system out of Tier 1 shortage. In addition, CAP, in partnership with the Arizona Department of Water Resources, is working to develop new programs in cooperation with Reclamation, California, Nevada and Mexico. Together, water leaders are addressing the long-term risks to the Colorado River and improving the health of the entire system, united in the commitment to ensure an adequate water supply for the communities that depend on the critical water supply.

One thing is clear: Continuing "business as usual" in the Lower Basin poses an unacceptable risk to all Colorado River water and energy users. Help "Protect Lake Mead" by learning more about Arizona's water issues, and supporting local and regional water utilities and elected officials in the difficult and potentially unpopular decisions that may have to be made.

PROTECT LAKE MEAD

MSCP - "Field of Dreams"

A 2019 article from CAP's Internal Communications - - CAP Connections

If you build it, they will come…..including a garter snake not seen in the U.S. in more than a century.

This "Field of Dreams" is known as the Lower Colorado River Multi-Species Conservation Program (MSCP), covering about 1,119 square miles in Arizona, California and Nevada. Started in 2005, this 50 -year program is beginning to reap some true benefits thanks to new and augmented habitats in the Lower Colorado River Basin aimed at protecting 27 species covered by the program, including eight listed under the Endangered Species Act.

"Truthfully, it's one of the coolest things we get to do" says Chuck Cullom, partnership with the U.S. Bureau of Reclamation, and water users in Arizona, California, and Nevada, is creating opportunities for these species to persist and survive."

The MSCP goal is to balance the Lower Basin use of Colorado River water resources with conservation of native species and their habitat. This includes:

- Planting 8,132 acres of Cottonwood Willows and Honey Mesquites, along with marsh and backwaters within the historic 100-year floodplain of the Lower Colorado River.
- Stocking 1.2 million fish—Razorback Suckers and Bonytail Chub

Nearly 15 years into the program, 6,049 acres of conservation habitat have been created and 320,000 Razorback Suckers and 100,000 Bonytail Chubs have been introduced into the system. The program operates through funding provided by the United States and from water and hydropower users in California, Arizona, and Nevada. The annual budget is about $36 million, of which Arizona, primarily from Central Arizona Project, provides about $4.5 million or 12.5% of the budget.

Most importantly, the program is working.

Earlier this year, the Northern Mexican Garter Snake, not seen in the U.S. since 1904, reappeared in the MSCP habitat. The Yellow-Billed Cuckoo, a classic "snowbird" (migrates from central and south America to the Lower Colorado River region) has been spotted spending winters nesting in the area. And, the MSCP is gearing up for more success stories when Planet Ranch, near Lake Havasu City's Bill Williams National Wildlife Refuge, is completed next year.

MSCP efforts not only create a more diverse ecosystem, they also have practical applications in terms of flood protection and reduced turbidity (murkiness) in the water that ultimately flows through CAP's pumping plants. By protecting our watersheds, we're also protecting our infrastructure.

And that's truly a win-win for everyone in this "Field-of-Dreams" - birds, reptiles and fish included!

Colorado River Salinity Control Program

In 1975 – more than 40 years ago – the seven Colorado River Basin states adopted an EPA-approved salinity standard for the Colorado River. This standard provides criteria for dissolved solids and a plan designed to keep the average annual salinity concentrations at or below 1972 levels. Salinity control is important because increased salt levels can limit or prohibit agricultural productivity and add costs to municipal and industrial water users. All Colorado River water users benefit from investments in improved water quality, including those in Mexico.

The Colorado River Salinity Control Program is managed by a partnership of federal and state agencies that have worked cooperatively with tribal communities, irrigation companies and individual water users for the past four decades to control the salinity levels of the Colorado River, while allowing development and use of its waters. CAP represents Arizona water users on the Salinity Control Forum, along with the Arizona Department of Water Resources and the Arizona Department of Environmental Quality. Through efforts to date, the salt load of the Colorado River has been reduced by about 1.3 million tons annually. The current plan calls for the creation of an additional 67,000 tons of annual salinity control practices over the next three years.

Colorado River in Arizona

Colorado River in Arizona

Today, the Colorado River currently meets all applicable water quality standards, but the challenge in an era of drought is to protect and maintain that quality going forward. To meet this challenge, CAP, the Metropolitan Water District of Southern California and Southern Nevada Water Authority joined together in 2011 to form the Lower Colorado River Water Quality Partnership. The Partnership works to identify and implement proactive, collaborative solutions to address Colorado River water quality by identifying the challenges currently facing the River, collaborating on research and policy analysis and developing initiatives and solutions to ensure the River's future health and sustainability.

Colorado River Drought Contingency Plan (DCP)

Arizona residents can now be assured that future water supplies are more reliable and secure. The economies supporting the state can continue to thrive based on this secure water supply.

What is the Drought Contingency Plan?

DCP is a set of agreements designed to protect the Colorado River system through voluntary reductions and increased conservation. The agreements were developed through a collaborative process among the federal government, states, water users and Mexico. The Arizona Department of Water Resources and Central Arizona Project were the participants from Arizona.

There is an Upper Basin DCP involving Colorado, New Mexico, Utah, Wyoming and the U.S.; a Lower Basin DCP involving Arizona, California, Nevada and the U.S.; and a companion agreement which connects these two programs and links them to Mexico through a U.S. - Mexico agreement.

How was Arizona's DCP Implementation Plan developed?

In 2018 and early 2019, ADWR and CAP jointly led nearly 40 stakeholders through months of public and small group meetings. During this process, new arrangements, which form a package called the Arizona DCP Implementation Plan, were negotiated. The package agreements share the burden of impacts from Colorado River reductions and the benefits of increased reliability for Arizona water users.

Why did Arizona participate in DCP?

Arguably Arizona, and CAP specifically, had the most to lose because of its junior priority on the Colorado River, which means its supply would be cut first and most, during times of shortage. There was also uncertainty about what would happen if Lake Mead, the Lower Basin's principal reservoir, dipped to the very lowest levels. Arizona participated in DCP in order to reduce this risk by sharing reductions with other states and Mexico.

Will DCP prevent a shortage?

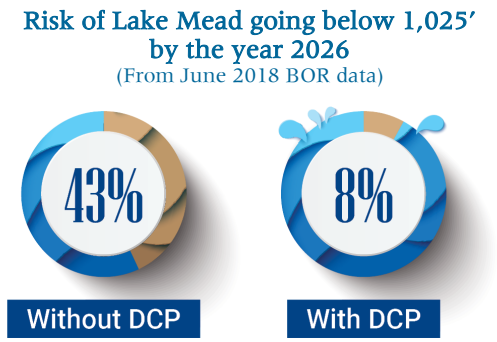
DCP will not prevent a Colorado River shortage, but due to Arizona's innovative water management programs, conservation and collaborative long-term planning, Arizona will continue to enjoy reliable water supplies. With DCP and Arizona's water management framework, we are prepared to handle the effects of drought and potential Colorado River shortage.

When does DCP start?

The Drought Contingency Plan Authorization Act was signed into law on April 16, 2019 and reductions to Arizona's Colorado River supply under DCP will begin in 2020; and run through 2026. It is anticipated that new rules will be negotiated and put into effect after 2026.

Why was DCP necessary?

The risks of Lake Mead falling below critically low reservoir elevations has tripled in the past decade, increasing the risks of large-scale reductions to Arizona's Colorado River supply and threatening the health of the river for all users. Previous agreements and guidelines designed to protect the system against such dry times may not be sufficient to address the current risks to the system.



Projections by the U.S. Bureau of Reclamation in June 2018 showed that DCP would reduce the risks of Lake Mead falling below critical elevations. DCP provides Arizona with greater certainty for reliable and secure water supplies now and in the future.

You should know….

#1	A Colorado River water shortage does not mean that Arizona is in a water crisis.
#2	Arizona leads the nation with rigorous water conservation and sustainability laws that protect Arizona water users.
#3	The DCP provides a plan for how Arizona cities, agricultural users, industries, tribes and others will share Colorado River water supplies during shortages, while honoring the existing priority system.

Tier Zero….What is it?

Historic Drought Contingency Plan Signing Ceremony

Tier Zero is a new Lake Mead water shortage trigger at 1090' elevation. Since the lake currently sits between 1090' and 1075' (the Tier 1 trigger). Arizona will be in a Tier Zero shortage in 2020.

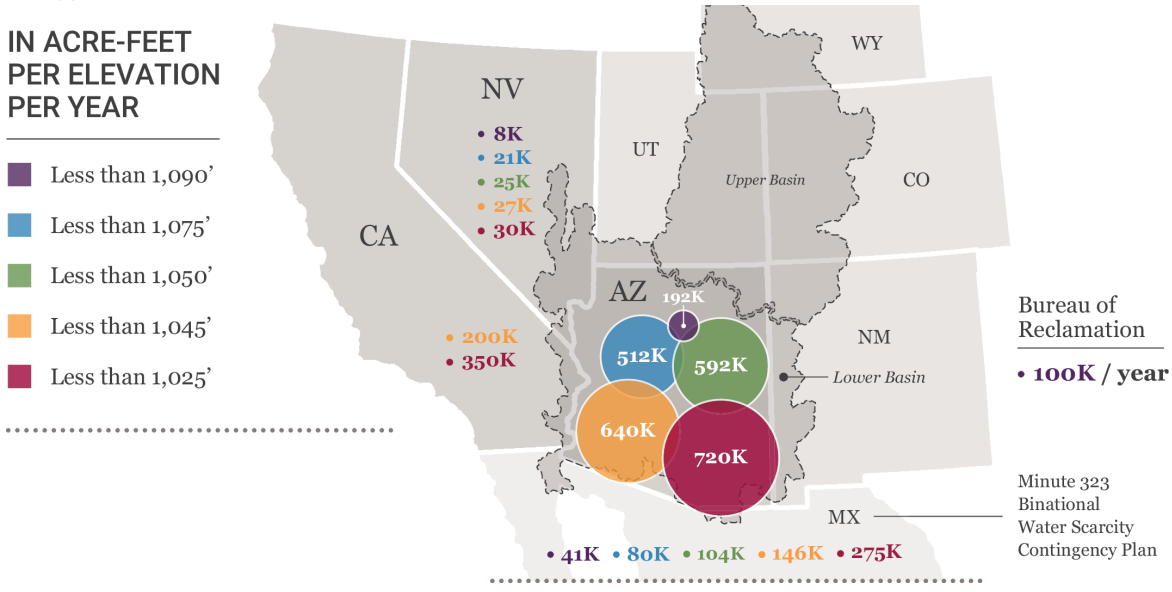
The small purple dot within the map below signifies the Tier Zero (less than 1090' elevation) realities. For Arizona, a Tier Zero shortage means our Colorado River supplies will be reduced by 192,000 acre-feet, falling almost entirely on CAP. In a Tier Zero shortage, supplies to Nevada and Mexico will also be reduced and the Bureau of Reclamation will begin making contributions to Lake Mead.

The 192,000 acre-feet reduction to CAP, about 12% of the normal CAP supply, is essentially equivalent to the amount we have been voluntarily leaving in the lake since 2015 as part of our Lake Mead Conservation program. The difference is that those contributions were voluntary, but under DCP these contributions become mandatory.

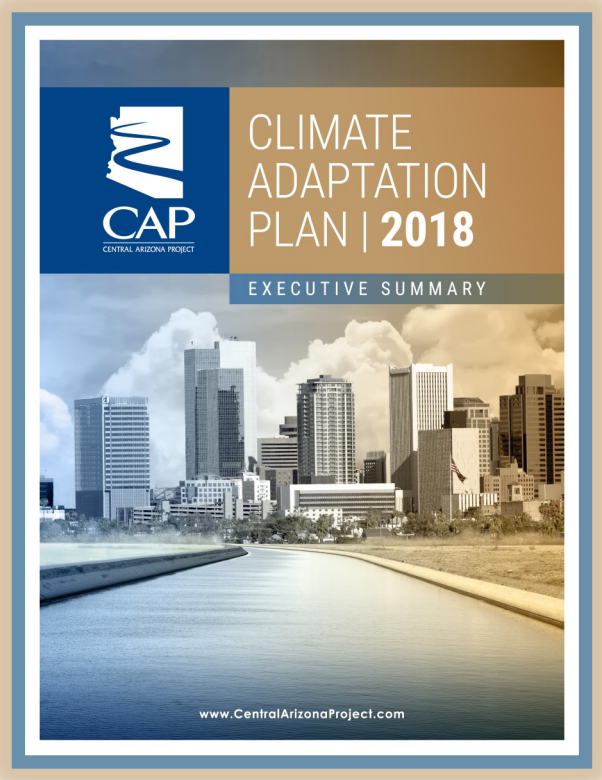
CAP's 2020 Water Plan and Base Rates use this Tier Zero shortage assumption. Tier Zero means there is no extra CAP water available for banking or replenishment. In addition, the CAP agricultural users will suffer up to one-third reduction in supply. These reductions are painful and increase CAP water rates. However, even with these reductions, CAP and our partners will continue to conserve resources to prepare for a drier future.

All-in-all, the likelihood that we lwon't enter a Tier 1 shortage until 2022, at the earliest, is encouraging news. We know, one great winter does not erase nearly two decades of drought. Working under the new realities of DCP, we now have a road map for the next several years. We'll be working under DCP until 2026, and in the interim we will continue to negotiate new shortage-sharing guidelines that will take effect in the subsequent period.

Lower Basin DCP Contributions to Lake Mead



CAP Climate Adaptation



CAP has long been involved in adaptation activities that mitigate against drought, including groundwater storage, water augmentation (e.g., weather modifications), and water conservation programs (e.g., pilot system conservation). In addition to these adaptation activities that are directly connected to CAP's water supply, CAP has also funded research projects that improve our understanding of how hydrological and meteorological variables influence water supply conditions and forecasts in the Colorado River Basin.

CAP / ASU NASA-Funded Study

CAP has partnered with Arizona State University on a NASA-funded study to explore the impacts of future climate on CAP's water supply (the Colorado River). ASU received a $1 million grant from NASA towards conducting modeling and analysis work that focuses on averting drought shortages in the Colorado River. The end goal of the study is to incorporate new modeling products, tools and enhancements into the existing modeling and analysis used by the CAP. Results from this study will be shared with other Colorado River Basin stakeholders to analyze the impacts of climate change on the Colorado River Basin and therefore inform future decisions regarding the Colorado River as a major supply source in the West.

Water Utility Climate Alliance

CAP is a member of the Water Utility Climate Alliance (WUCA), a coalition of 12 of the nation's largest water providers that collectively supply drinking water to more than 50 million people throughout the United States. WUCA is dedicated to ensuring that water utilities are well-positioned to respond to the impacts of climate change on their water supplies by funding projects, producing publications and hosting workshops that support water utility climate adaptation. WUCA's current membership includes Central Arizona Project, Austin Water, Denver Water, Metropolitan Water District of Southern California, New York City Department of Environmental Protection, Philadelphia Water Department, Portland Water Bureau, San Diego County Water Authority, San Francisco Public Utilities Commission, Seattle Public Utilities, Southern Nevada Water Authority, and Tampa Bay Water. CAP has been serving as WUCA's vice-chair since 2018 and will assume the position of WUCA chair in 2020.

CAP Climate Adaptation Plan

CAP began the process of developing its own organizational climate adaptation plan in 2017. The process began by assembling a team of CAP staff members and CAWCD Board of Directors sponsors who collectively represent key areas of the organization that are vulnerable to current and future impacts of climate change.

Through the remainder of 2017 and 2018, the CAP team worked on developing future planning scenarios, climate change impacts, and adaptation strategies relevant to CAP's strategic planning. The step-by-step process of developing this information and a thorough analysis of the results and the impact on each CAP function were compiled into a comprehensive final report that was published in 2019. The climate adaptation plan provides an assessment of how climate change may impact CAP and identifies adaptation strategies that the organization can undertake to address those impacts.

CAP System Use Agreement

The Central Arizona Project System Use Agreement, signed by CAP and the Bureau in February 2017, increases the reliability and flexibility of the state's single largest renewable water supply by creating a legal framework to allow wheeling, firming and exchanges in the CAP system.

Wheeling is when the CAP system is used to transport new water supplies; firming refers to the use of water that has been stored underground to increase the reliability of CAP supplies during shortage; and exchanges are arrangements in which a delivery of CAP water is legally swapped with an alternate supply.

Work continues on the implementation of the System Use Agreement, particularly in the establishment of uniform water quality standards for the introduction of Non-Project Water into the CAP system. After extensive public processes, the CAWCD Board adopted introduction and delivery standards for non-Project Water, and CAP is also developing an expanded water quality and monitoring program, along with implementation guidelines. Water quality is a critical component of several wheeling projects under consideration, including proposals to import groundwater from the Harquahala Irrigation Non-Expansion Area.

CAWCD Board of Directors & Bureau

The System Use Agreement has also played a prominent role in planning efforts related to the recovery of the more than four million acre-feet of CAP water stored by the Arizona Water Banking Authority. The provisions related to exchanges of non-Project Water for Project Water are particularly relevant to cost-effective methods for implementing recovery utilizing existing infrastructure and partnerships.

By establishing an overall framework, the System Use Agreement will allow the CAP infrastructure to be used in more efficient and innovative ways. Those innovations are crucial to the success of efforts by CAP and state water agencies to manage risks from drought and shortages on the Colorado River.

Agua Fria Tunnel Outlet

District Funds

Central Arizona Project (CAP) accounts for its activities by means of four separate funds and accounts. Each fund and account represents a separate activity that has its own sources and uses of cash. Within each, revenues and expenses are further divided between operating and non-operating categories. These funds and accounts are further explained in the Operating Budget, Section 4. The following key assumptions provide the framework and guidance for development of the 2020 / 2021 Biennial Budget. The assumptions and trends are discussed in the sections that follow:

General Fund

Largest share of Central Arizona Water Conservation District (CAWCD or District) financial activities that include water deliveries, maintenance, underground water storage, federal debt repayment, capital expenditures and other daily operations

Assumptions

- Water revenues are based on reconciled rates of estimated costs and projected water volumes
- Tax and capital charge revenues are based on current Board approved rates
- Sufficient funds are included in the budget to ensure that all capital facilities and equipment are properly maintained
- No contingency amount is included in the budget.
- Due to its uncertainty, non-Indian Agriculture reallocation implications are not included in the budget

CAGRD Account

All activity of the Central Arizona Groundwater Replenishment District (CAGRD) for Member Service Areas (MSA) and Member Lands (ML) revenue collections, water replenishment obligations and related operating expenses

Assumptions

- CAGRD rates include components for the cost of replenishment water, replenishment reserve, water rights, infrastructure and administration
- Membership dues will be collected each year
- Replenishment obligation expense is based on the anticipated cost of supplies to fulfill obligation

Supplemental Water Account

Reserves that are held pursuant to the Ak-Chin Water Rights Settlement to acquire or conserve Colorado River Supplies

Assumption

- Interest accrues on balance and there are no anticipated expenditures for the account during the budget period

Captive Insurance Fund

All activity for the CAWCD Insurance Company (Captive), a tax-exempt wholly-owned corporation for CAWCD's self-insurance of property, casualty and health coverage

Assumptions

- Premiums will be established based on actuarial estimates
- Reserves will be funded in accordance with legal requirements

CAP Canal near check structure 24

District Revenues

CAWCD has four major sources of funding:

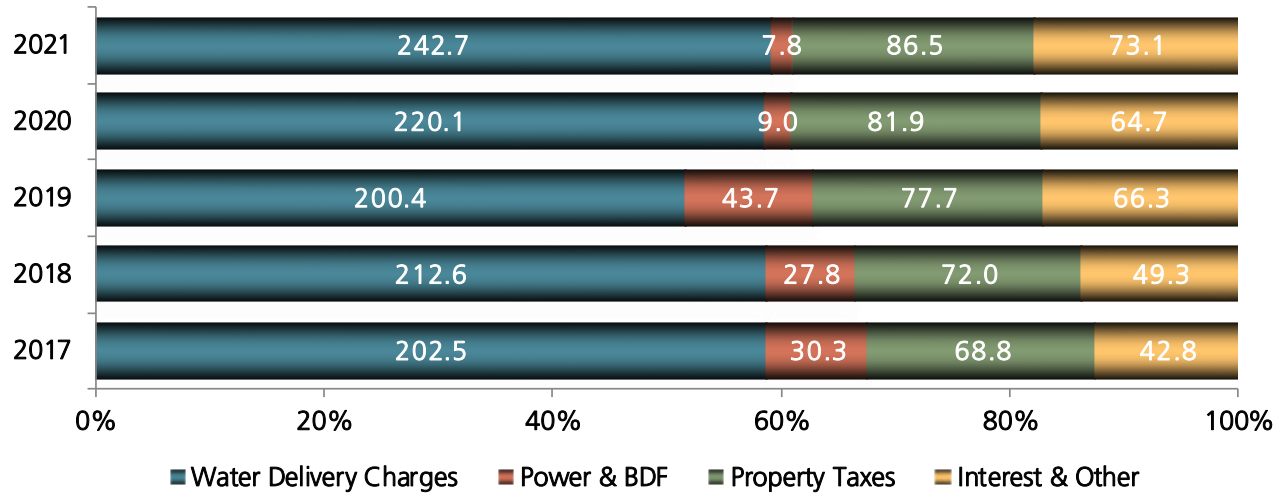
- Water delivery charges, which include Water Operations and Maintenance (O&M) charges, capital charges and pumping energy charges
- Power and Basin Development Fund (BDF) revenues
- Property taxes
- Interest income, reimbursement revenues, CAGRD revenues, underground water storage revenues and other miscellaneous revenues

Water delivery charges are the District's most significant revenue source, accounting for approximately 60% of the 2020 / 2021 Budget. Property taxes comprise approximately 21% of revenues, Power and Basin Development Fund revenues represent over 2%, with the balance comprised of Central Arizona Groundwater Replenishment District (CAGRD) charges, interest income, underground water storage fees, reimbursements and other revenues.

Each fund and account is accounted for individually to determine the performance of the specific activities within that fund. At the consolidated level, inter-fund activities are eliminated. For instance, CAGRD purchases water from CAP to meet its obligations. Within the General Fund it is shown as a revenue or sale of water while in the CAGRD Account it is shown as an expense. At the consolidated level, the transaction is eliminated, which is shown under eliminations.

Total Revenue

($ Millions) - 100% scale



The following table shows the year-over-year revenue changes and are explained in the subsequent sections:

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 Incr/(Decr)	21 vs 20 Incr/(Decr)
Water O&M Charges	$ 175.1	$ 184.8	$ 201.1	$ 9.7	$ 16.3
Capital Charges	25.3	35.3	41.6	10.0	6.3
Power & Other BDF	43.7	9.0	7.8	(34.7)	(1.2)
Property Taxes	77.7	81.9	86.5	4.2	4.6
Interest Income	19.9	11.9	12.4	(8.0)	0.5
Other Revenues	46.4	52.8	60.7	6.4	7.9
Total Revenues	$ 388.1	$ 375.7	$ 410.1	$ (12.4)	$ 34.4

Water Delivery Volumes and Water Delivery Charges

Water Delivery Volumes

The delivery of wholesale, untreated surface water represents CAWCD's core business with deliveries to customers grouped into three major classes: Municipal and Industrial (M&I), federal (Indian) and excess. The M&I and federal deliveries are pursuant to long-term federal contracts and long-term M&I subcontracts. Any amounts not delivered under these agreements are available as excess water under annual short-term agreements. The highest priority of excess water is the agricultural (Ag) settlement pool, which was established pursuant to the Arizona Water Settlement Act (AWSA).

The AWSA established a pool for Ag customers as a settlement for relinquishing their long-term CAP subcontract allocations so that water supply could be used for Indian water settlement. The Ag Settlement pool was 400,000 acre-feet through 2016, but declined to 300,000 acre-feet in 2017. It remains at this level through 2023, then decreases to 225,000 acre-feet through 2030. CAWCD has various rate schedules for these customer classes (see page 7-3). Ag subcontractors were relieved of certain indebtedness to the United States. Part of this relief was in the form of debt forgiveness by the United States, and part of the relief was the assumption of a portion of the debt (known as 9(d) debt) by CAP. In addition, Ag customers do not pay Fixed Operations, Maintenance and Replacement (OM&R) as part of the AWSA, which is referred to as the Ag Consideration.

CAWCD has an "Access to Excess" policy for the allocation of excess water. In developing the Annual Operating Plan (water deliveries):

- CAWCD shall first use available CAP excess water to fully satisfy the Ag Settlement Pool. Any remaining CAP excess water is "Other Excess".
- CAWCD will then use Other Excess to satisfy commitments associated with the Water Availability Status Contract with the City of Scottsdale, not to exceed 2,910 acre-feet.
- CAWCD will then use Other Excess to satisfy the difference, if any, between the most recent year of reported CAGRD replenishment obligation, and the volume of renewable supplies

available for replenishment (excluding Long Term Storage Credits (LTSCs)), up to a limit of 10,000 acre-feet per year.

- The Board will further make an annual decision whether to make additional Other Excess available to the Statutory Firming Pool. If the Board decides to make other Excess available, it will be apportioned among the Arizona Water Banking Authority (AWBA), Bureau and the CAGRD based on an annual coordination meeting among the three organizations.
- The Board may further establish a Supplemental Firming Pool, comprised of any Other Excess available after satisfying the Statutory Firming Pool. This pool will be made available at the same charge and on the same terms to federal and non-federal long-term contractors holding non-Indian Agriculture (NIA) priority supplies on a proportional basis until all orders are satisfied or the available supply is fully subscribed.
- CAWCD can provide up to 35,000 acre-feet to meet CAGRD annual replenishment obligations.
- All remaining Excess Water goes to the Statutory Firming Pool.

State law, ARS 48-3772(E)(8), provides that the CAGRD replenishment reserve shall have access to excess CAP water equivalent to that of the AWBA for firming CAP M&I subcontracts.

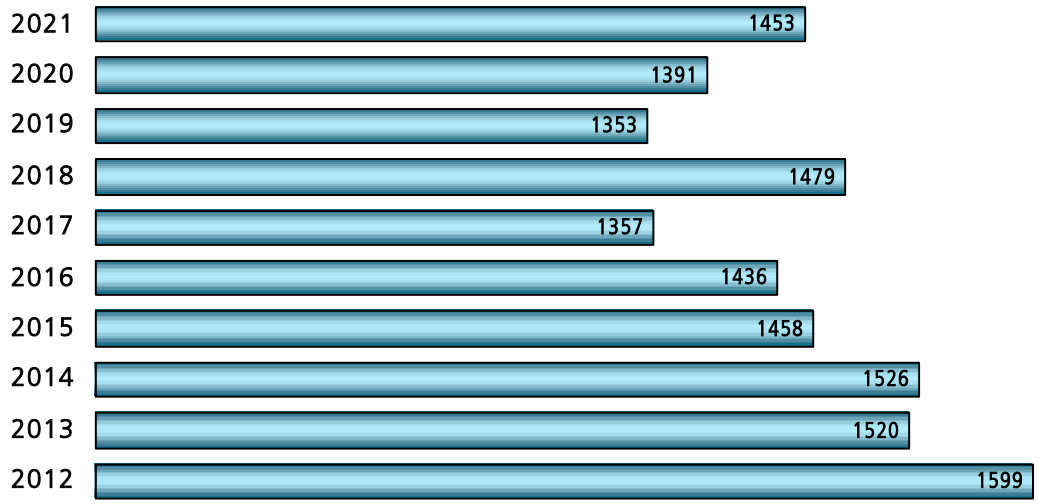
Due to the ongoing drought, structural deficit and Drought Contingency Plan (DCP) implementation, water available to CAWCD has decreased. In addition, as M&I and federal water usage has grown, the availability of excess water has decreased.

Major Assumptions

- The CAWCD planned deliveries are based on a Tier Zero DCP level, which includes a reduction of 192,000 acre-feet of deliveries in 2020 and 2021.
- The Gila River Indian Community (GRIC) is forbearing 83,000 acre-feet in 2020 to create Intentionally Created Surplus (ICS) credits, which will be held in Lake Mead until a future period. The Fixed OM&R rate is being paid on these credits so there is not an impact in 2020 on the Fixed OM&R rate (see explanation of the rate in the following pages).
- The Ag Settlement Pool of 300,000 acre-feet is reduced by voluntary reductions pursuant to a forbearance agreement to leave water in Lake Mead.
- No other excess water is made available during the budget period.

Water Deliveries 2012 to 2021

Acre-Feet (000)
Excludes credits



Water Delivery Charges

As prescribed in CAP's rate-setting policy, water delivery charges are set biennially in June (even years) for the upcoming two calendar years with firm rates for the first year, provisional rates for the second year and advisory rates for the following four years. Provisional rates automatically become firm the next year, unless the Board takes additional action. In 2018, CAP set the provisional rates for 2020. Due to changes with energy market forecasts, transmission costs and water volumes, the Board revised the 2020 rates as well as the advisory rates in 2019. During the rate setting period, there appeared to be a high likelihood of a Tier 1 shortage in 2021. Subsequent to this time, a wet winter significantly changed the likelihood of a Tier 1 shortage in 2021 and it is forecasted to be a Tier Zero. In recognition of this change, the previously approved advisory rates for 2021 were revised be a Tier Zero to develop to the 2020 / 2021 budget. The updated rates can be found in the Rate Schedules in the Appendix (pages 7-3 through 7-6).

Due to the correlation between water delivery volumes and water delivery charges, assumptions used to explain water delivery volumes are pertinent for understanding water delivery revenues. The following table reflects actual water deliveries and associated revenues for 2017 and 2018 and water delivery volume assumptions and related revenues for 2019 through 2021.

Water Operation & Maintenance (O&M) rates have three major components: Fixed OM&R, pumping energy and Capital Charges. Each of these components is discussed in the subsequent sections. Following are the water volumes and water delivery revenues:

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Volume *(Acre-feet in Thousands)*					
Municipal & Industrial	561.0	580.6	610.3	615.2	615.2
Federal	490.5	563.2	452.8	500.1	583.1
Excess					
Ag Settlement	257.9	242.8	273.9	274.7	253.9
Other	47.9	92.6	15.8	0.6	0.6
Total Water Deliveries	1,357.3	1,479.2	1,352.8	1,390.6	1,452.8
CAGRD Credit Transfer	14.9	-	39.3	13.9	15.2
Take or Pay/Adjustment	9.7	11.5	6	6	6
	1,381.9	1,490.7	1,398.1	1,410.5	1,474.0
Revenues *(Millions)*					
Water O&M Charges	$ 182.8	$ 182.3	$ 175.1	$ 184.8	$ 201.0
Capital Charges	19.7	30.3	25.3	35.3	41.7
Total Water Delivery Revenues	$ 202.5	$ 212.6	$ 200.4	$ 220.1	$ 242.7

Fixed OM&R Rate Component

The Fixed OM&R component of the rate is comprised of two parts: O&M costs and a capital replacement component ("Big R"). The O&M costs are calculated to assume that costs associated with fixed O&M are recovered. Water delivery costs are divided by total deliveries to calculate the O&M rate.

The "Big R" component funds annual major repairs, replacements and capital improvement programs (CIP) related to water deliveries. However, to mitigate fluctuations in annual capital expenditures, the model is designed to smooth the rate and to recover the costs over several years rather than 100% in each year.

A rate stabilization component was previously incorporated into the Fixed OM&R rate in 2012 and was deposited into a separate rate stabilization reserve. Collection of the rate stabilization ended in 2018. It had a target of approximately $30 million and is projected to reach the target by the end of 2019 with accruing interest.

The rate stabilization component was designated for two purposes. The first and most important is to create a reserve to smooth out a rate increase in the event of a shortage declared on the Colorado River. In the event of a shortage, water deliveries would be decreased, which would cause the rate to increase for Fixed OM&R charges (a lower denominator). In this event, funds from the rate stabilization reserve would be used to decrease the impact of the shortage over a two- to three-year period. The second purpose of the rate stabilization component, if needed, is to provide a mechanism to stabilize rates from year-end reconciliation. Rates for M&I and federal customers are required to be reconciled each year and the reserve could be used for settlement of the difference. To date, the reserves have not been utilized for this purpose.

In 2015, long-term contract holders, which require annual rate reconciliation and settlement, were due a significant refund from the 2014 reconciliation (mostly related to energy). A program was offered to these stakeholders to deposit their refunds into a secondary voluntary rate stabilization fund. CAWCD agreed to match a portion of the amounts that were contributed to the fund. This fund would allow participants to further decrease the initial rate impacts resulting from a shortage. Based on customer request, if a shortage does not occur by the end of 2020, these funds will be refunded to the participants with the associated interest. CAWCD reserves would also be refunded the amount that was matched with interest. A significant number of stakeholders opted to participate in the program. The budget contemplates these reserves being refunded in 2021 as a Tier 1 shortage does not appear to be declared.

M&I, federal and excess (excluding Ag) customers pay the full Fixed OM&R rate. In consideration of giving up their subcontract water rights, Ag settlement pool stakeholders' Fixed OM&R is paid from ad valorem taxes.

Pumping Energy Rate Component

The pumping energy rate component relates to the energy costs associated with delivering water. All customers pay pumping energy, including Ag customers. Prior to 2020, it also included a cost for the decommissioning of the Navajo Generating Station (NGS). Through 2019, the majority of energy was provided through the NGS with a smaller amount for daily needs being purchased from the energy market. Starting in 2020, NGS is decommissioned and all energy is provided through long-term contracts, the energy market and Hoover (see pages 2-16 through 2-17 for additional energy information).

Capital Charges

Capital Charges are used to pay the District's annual repayment obligation to the federal government. CAWCD assesses a Capital Charge to M&I customers. These charges are based on water service subcontract allocations for M&I subcontractors and are not impacted by changes in water deliveries. Customers using excess water pay Capital Charges in the form of a facility-use charge based on scheduled water deliveries; neither federal or Ag customers pay a Capital Charge. Any repayment obligation amount not covered by Capital Charges are made up from property taxes.

Major Assumptions

- Water O&M revenues are projected to be the indicated volumes and at reconciled rates for long-term contracts and subcontracts.
- M&I Capital Charge and facility use rates will be $56/acre-foot for 2020 and $66/acre-foot for 2021.
- Financial impacts from non-Indian Ag reallocation are not included in the budget period.
- Delivery levels will be at the levels indicated on page 7-1.

CAP Picacho Pumping Plant

Power and Basin Development Fund Revenues

CAP is a multi-purpose water resource project authorized by the Colorado River Basin Project Act and constructed by the Bureau. This act established the Lower Colorado River Basin Development Fund (LCRBDF or BDF) maintained by the U.S. Department of the Treasury. Although the District is responsible for the operation and maintenance of CAP and repayment of the reimbursable construction costs, the United States retains a paramount right or claim in CAP arising from the original construction of CAP as a Federal Reclamation Project. The District's right to the possession and use of all revenues produced by CAP is evidenced by the Master Repayment Agreement, various laws and other agreements with the United States. Legal title to CAP will remain with the United States until otherwise provided by Congress.

Power & BDF revenues are earned from a surcharge on energy sold in Arizona from the Hoover Power Plant and the Parker-Davis Project, net transmission revenues, revenues associated with land-use agreements, sale of excess lands and other miscellaneous revenue. A significant amount of the prior revenue was generated though excess NGS power sold to SRP and the open market, which ends with scheduled closure of NGS in late 2019.

Following are the Power & BDF Revenue year-over-year changes:

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 Incr/(Decr)	21 vs 20 Incr/(Decr)
SRP consideration fee	$ 28.0	$ -	$ -	$ (28.0)	$-
Net surplus power/ net NGS operations	1.3	-	-	(1.3)	-
Hoover 4.5 Mil Revenue	3.1	3.0	3.0	(0.1)	-
Parker-Davis 4.5 Mil Revenue	2.7	2.7	2.7	-	-
Net CAP Transmission Revenues	7.0	0.8	0.8	(6.2)	-
Land-Related Revenue	1.3	2.0	0.8	0.7	(1.2)
Misc NGS Revenues	0.3	0.5	0.5	.2	-
	$ 43.7	$ 9.0	$ 7.8	$ (34.7)	$ (1.2)

Major Assumptions

- Hoover 4.5 mil surcharge and Parker Davis revenue will continue throughout the budget period
- Transmission revenues will occur as indicated
- Land sale proceeds and land use fees will occur as indicated

Reimbursement and Other Revenues

Reimbursements and other revenues account for various miscellaneous items, such as CAGRD charges, underground storage revenue and Captive revenues. Other revenues collected by CAWCD or expenses reimbursed to CAWCD by other entities are recorded in this category. The following are examples of the type of revenues included in this category:

(Thousands)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 Incr/ (Decr)	21 vs 20 Incr/(Decr)
CAGRD Assessments	$ 44,055	$ 50,745	$ 58,712	$ 6,690	$ 7,967
O&M of Underground Storage Facilities	1,422	1,368	1,293	(54)	(75)
Land Use Charges	223	197	186	(26)	(11)
Property Disposal (Non-Capital)	8	13	11	5	(2)
Captive Insurance Premiums	10,125	10,115	10,733	(10)	618
Other	677	512	524	(165)	12
Eliminations	(10,142)	(10,124)	(10,742)	18	(618)
Total Reimbursements and Other Revenues	**$ 46,368**	**$ 52,826**	**$ 60,717**	**$ 6,458**	**$ 7,891**

Underground Storage

CAWCD, through previous State Demonstration Tax proceeds (predecessor to the water storage tax) and some general ad valorem tax proceeds, built several underground storage sites, sometimes called recharge sites.

These sites continue to serve a variety of purposes, including: storing excess water to allow the AWBA to create long term storage credits toward meeting its M&I firming goal; providing stakeholders the ability to store unneeded entitlement for self-firming; as well as providing a means to replenish water for CAGRD obligations.

Since the underground storage facilities (USF) were constructed using State Demonstration Project tax revenues and general ad valorem tax revenues, when entities other than municipal, AWBA and CAGRD (e.g., federal, industrial, etc.) utilize them, an underground water storage Capital Charge is assessed to recover the costs of constructing these facilities.

CAP Underground Storage Facilities

CAWCD Underground Storage Operational Capacity
320,000 Total
Acre-Feet

Pima Mine Road	30,000
Lower Santa Cruz	50,000
Agua Fria	30,000
Hieroglyphic Mountains	35,000
Tonopah Desert	150,000
Superstition Mountains	25,000

Ad Valorem Taxes

CAWCD is authorized to collect two ad valorem property taxes. Tax rates are set annually for the next tax year by the Board on or before its August meeting.

General Ad Valorem Tax

The District's enabling legislation authorizes levying a general ad valorem tax throughout CAWCD's three-county service area (Maricopa, Pinal and Pima counties), not to exceed $0.10 per $100 of Net Assessed Valuation (NAV) based on Limited Property Values (LPV). These taxes have been used for CAP federal debt repayment, Ag Consideration, recharge capital expenditures, smoothing project O&M expenditures and other Board-approved programs. This general ad valorem property tax was first levied beginning in the 1974 / 1975 tax year.

For the 2019 / 2020 tax year, the Board set the General Ad Valorem tax rate to $0.10 and designated that $0.025 of this tax be set aside in a separate committed Extraordinary Cost reserve until such time that the Board authorizes its use. This reserve will be utilized to help address the many significant cost expenditures looming, particularly related to shortage mitigation and recovery. The Extraordinary Cost reserve is not part of strategic reserves and requires Board approval prior to use.

The General Ad Valorem tax, net of the amount designated for the Extraordinary Cost Reserve, is deposited in the District's working capital reserves and utilized for authorized purposes.

Water Storage Tax

In 1996, the Arizona state legislature created the Arizona Water Banking Authority and the Arizona Water Banking Fund for purposes of increasing Arizona's use of its Colorado River entitlement. The legislation also authorized CAWCD to levy a water storage property tax at a rate of $0.04 per $100 of NAV in Maricopa, Pinal and Pima counties. Arizona Revised Statutes (ARS) § 48-3715-03.A provides that the Board shall determine whether any or all portion of the water storage tax is to be applied to the payment or repayment of CAP construction or operating costs. If these monies are not needed by CAWCD for these purposes, they must be transferred to the AWBA.

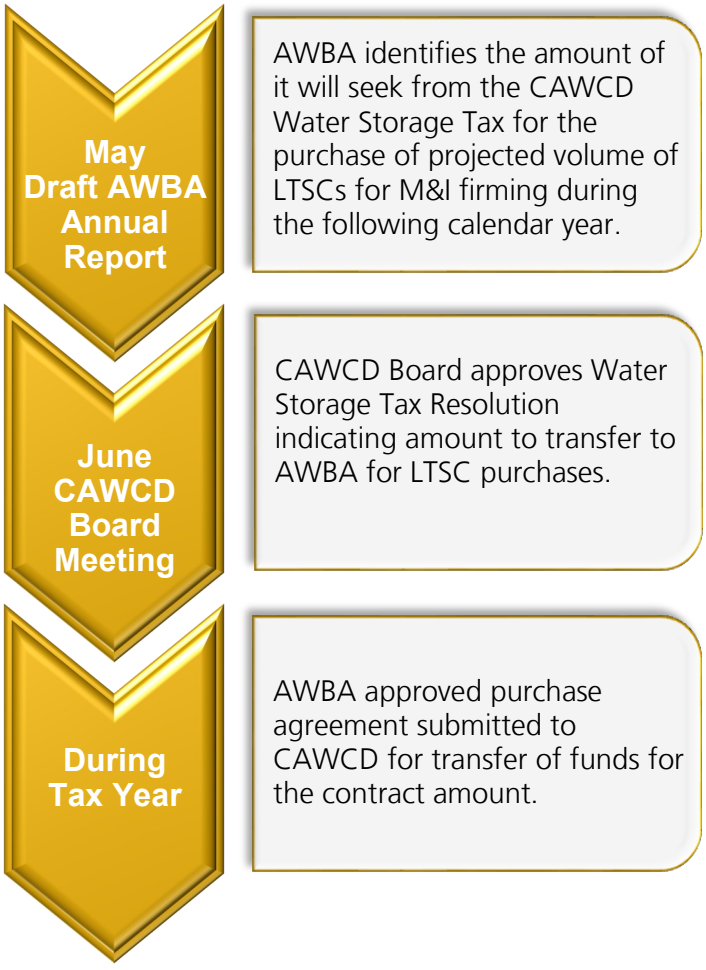
In 2014, ARS § 45-2423 was revised, allowing the AWBA to purchase LTSC. The Board subsequently approved an amendment to the existing Intergovernmental Agreement (IGA) among CAWCD, AWBA and Arizona Department of Water Resources (ADWR) that governs the way in which $.04 taxes can be used to help pay for such purchases. This IGA expired at the end of 2018 and a new IGA was entered into by the parties. The Board will continue to establish the Water Storage Tax rate and use each June under the existing statutes.

Process for Long Term Storage Credit Purchases

AWBA and CAP staff meet in May to discuss AWBA's draft Annual Report and the projected Water Storage Tax revenue. By May, AWBA will identify in its draft Annual Report the amount of revenues it will seek from the CAWCD Water Storage Tax for the purchase of the projected volume of LTSCs for M&I firming during the following calendar year. In June, staff will bring the water storage tax resolution to the Board, which includes a request to transfer the identified amount to the AWBA. As the AWBA Commission approves a purchase for M&I Firming LTSCs, AWBA will submit the agreement to staff for reimbursement up to the Board's approved level.

AWBA activities generate underground storage credits for the purposes of firming CAP M&I water supplies. Since 2012, the Board has designated the funds for federal repayment and OM&R costs, which includes AWBA M&I firming.

AWBA Long-Term Storage Credit Purchase Process



Property Tax Equivalency

Entities that are outside of the three-county area pay a property tax equivalency charge that is equivalent to taxes paid by entities within the CAP delivery area. These proceeds are transferred to the state Water Protection fund as required by statute.

Tax Years (collected October-September)	General Ad Valorem Tax (per $100 NAV)	Water Storage Ad Valorem Tax (per $100 NAV)
1984-88	$ 0.07	N/A
1988-95	0.10	N/A
1995-00	0.10	$0.04
2000-03	0.09	0.04
2003-07	0.08	0.04
2007-13	0.06	0.04
2013-19	0.10	0.04
2019-20	**0.10**	**0.04**
2020-21	**0.10**	**0.04**
2021-22	**0.10**	**0.04**

Calendar Year	General Ad Valorem Tax *(Millions)*	Water Storage Ad Valorem Tax *(Millions)*	Total *(Millions)*
2017	$ 49.2	$ 19.6	$ 68.8
2018	51.1	20.9	72.0
2019	56.6	21.1	77.7
2020	**58.3**	**23.6**	**81.9**
2021	**61.6**	**24.9**	**86.5**

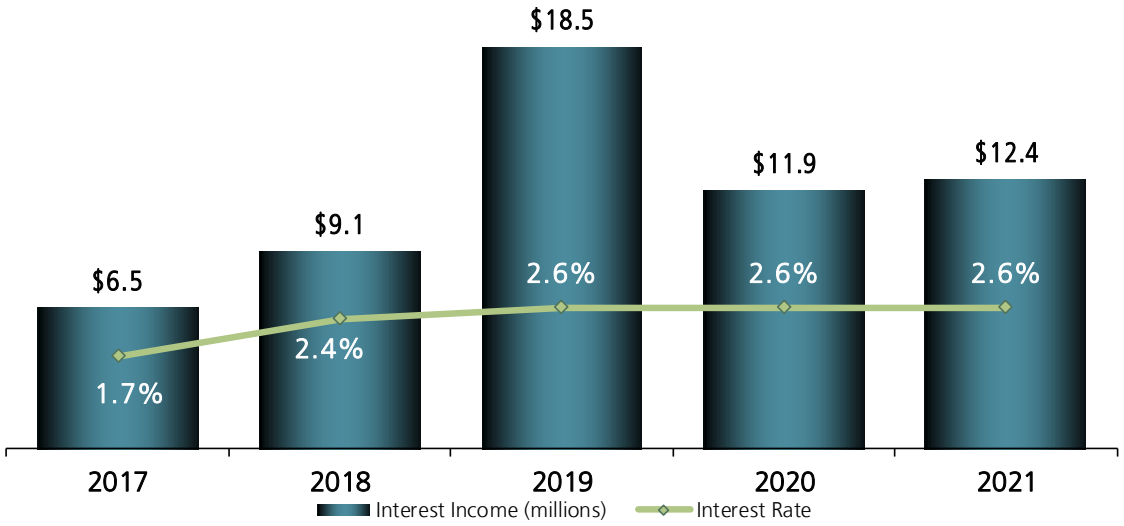
Major Assumptions

- The general ad valorem tax rate will remain at $0.10 per $100 of NAV throughout the budget period. $0.025 will be dedicated to the Extraordinary Cost reserve.
- The water storage tax rate will remain at $0.04 per $100 of NAV throughout the budget period.

INTEREST INCOME

CAWCD is required by its enabling legislation to invest funds not currently needed for operations or dedicated to the repayment of revenue bonds with the Arizona State Treasurer. Funds invested earn interest and this interest is recorded in the appropriate accounts. The Captive funds are held at First Hawaiian Bank. CAWCD also receives interest on funds that are held in the BDF fund by the Bureau.

The following graph shows the historical and projected Interest and fair value (FV) adjustments as well as the average annual interest rate on investments at the Arizona State Treasurer.



Major Assumption

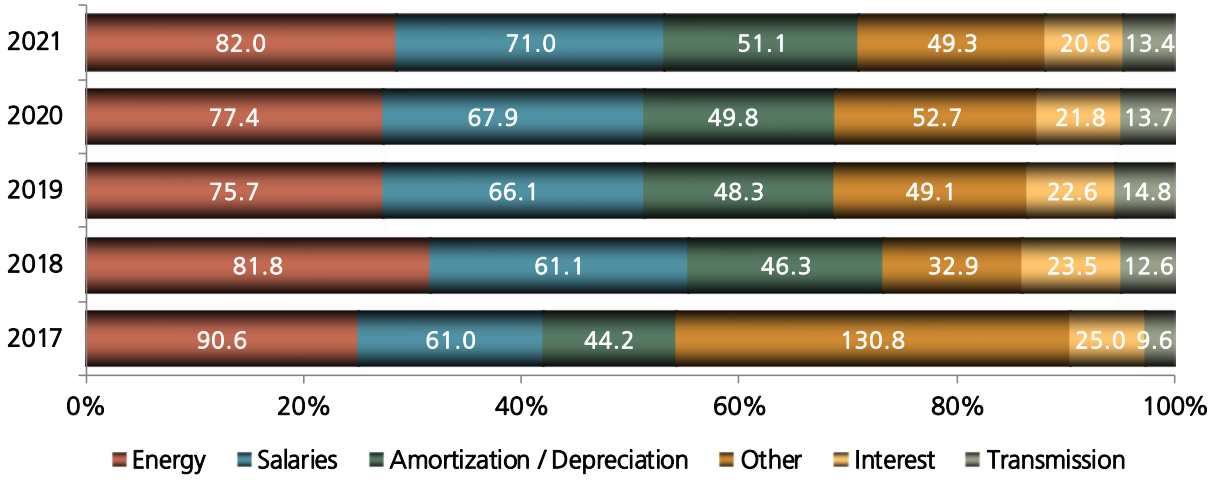
- Interest rates for funds invested with the Arizona State Treasurer will be an average of 2.6% in 2020 and 2021 based on approximately 20% short-term investments (under 1 year) and 80% longer term investments (2-5 years).

District Expenses

District expenses are categorized as either operating or non-operating expenses. Operating expenses include pumping energy, salaries and related costs, amortization and depreciation and other operating costs. Non-operating expenses are associated with interest expense on the federal repayment obligation and bonds and disbursements to AWBA. Pumping energy is the District's most significant expense, accounting for approximately 28% of the 2020 / 2021 budget. The second largest expense is salaries and related costs, followed by amortization and depreciation, other operating costs, interest expense and transmission expenses. The large 2017 other operating expense was the recording of the NGS decommissioning expense of over $70 million once the NGS shutdown was decided.

Total Expenses

($ Millions) - 100% scale



The following table shows the year-over-year expense changes and are explained in the subsequent sections:

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 Incr/(Decr)	21 vs 20 Incr/(Decr)
Pumping Energy	$ 75.7	$ 77.4	$ 82.0	$ 1.7	$ 4.6
Salaries & Related Costs	66.1	67.9	71.0	1.8	3.1
Amortization & Depreciation	48.3	49.8	51.1	1.5	1.3
Other Costs	49.1	52.7	49.3	3.6	(3.4)
Interest Expense	22.6	21.8	20.6	(0.8)	(1.2)
Transmission	14.8	13.7	13.4	(1.1)	(0.3)
	$276.6	$283.3	$287.4	$ 6.7	$ 4.1

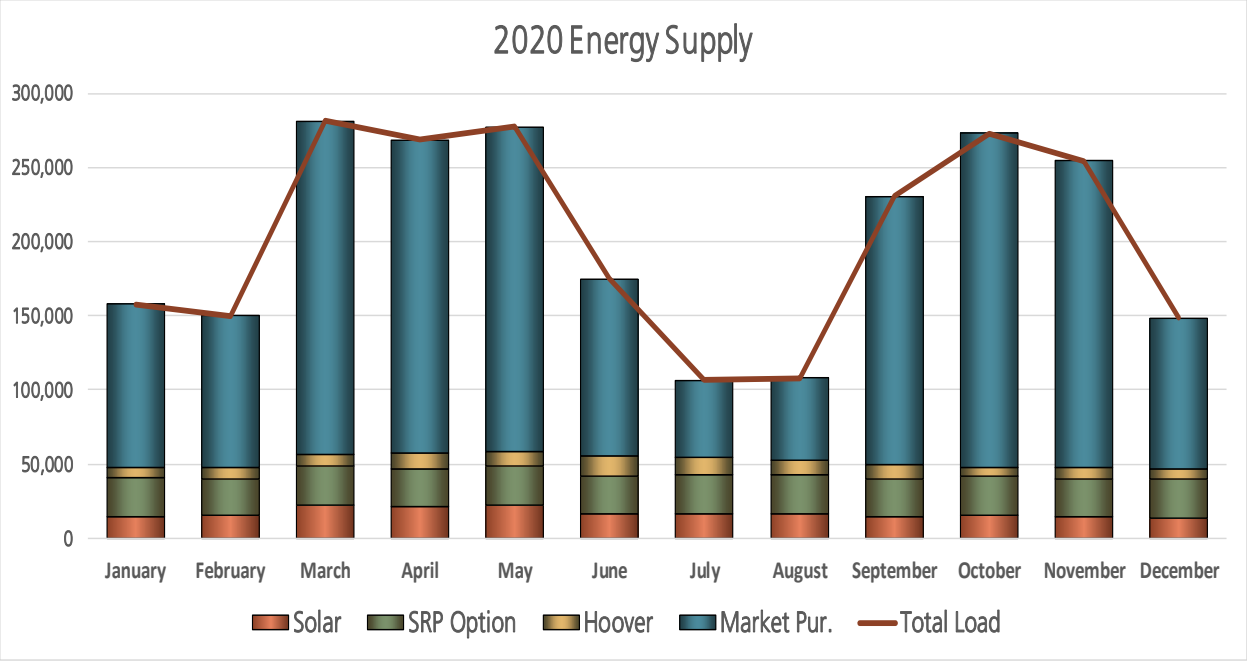
Pumping Energy

The greatest variable affecting water delivery expenses is the cost of pumping energy. While most General Fund operating costs (Fixed OM&R) will not vary with water deliveries, the cost of electricity to pump CAP water does vary. Pumping energy is consequently a variable cost. CAWCD anticipates using 2,550 gigawatt hours (GWh) of energy in 2020 and 2,721 GWh in 2021 to meet the District's pumping needs.

Picacho Pumping Plant

Currently, almost 80% of total CAP energy needs are obtained from market purchases. The remaining energy comes from a long-term contract for Hoover Dam generation, a energy purchase agreement for energy from a 30 megawatt (MW) solar plant, an agreement with an Arizona utility for 35 MW of firm energy from their fleet of generation, and the hydroelectric generation resulting from releasing water from Lake Pleasant.

CAP schedules energy use and develops pumping strategies that most efficiently fulfill customers' requests by using the system's 109 pumps. Although CAP runs 24 hours a day, schedulers utilize an on-peak/off-peak energy schedule to maximize pumping during off-peak times when energy is less in demand and less expensive.



The District established an Energy Risk Oversight Committee (EROC) that acts as an advisory committee on a variety of energy and transmission-related issues affecting CAP operations. The District uses a portfolio approach for managing CAWCD's contract energy resources and transmission contracts. This approach focuses on designing a portfolio of projects that best meet the following guiding principles:

- Minimizing volatility in cost paid by CAWCD without sacrificing reliability
- Maintaining options for use of transmission
- Leveraging use of existing transmission infrastructure
- Willingness to commit capital to secure new transmission

Major Assumptions

- Energy market pricing will remain relatively flat during the budget period and purchases will be made at rates comparable to the current environment.
- CAWCD can increase or lower the water stored in Lake Pleasant to meet CAP operational needs. When water is pumped into the lake increasing the storage, CAWCD increases water inventory and reduces pumping energy costs. Conversely, when water is released from the lake, water inventory is decreased and pumping energy costs are increased. A moderate downward Lake Pleasant adjustment is expected in 2020 / 2021.

TRANSMISSION

Transmission cost includes operations (delivery of pumping energy) and maintenance activities.

Major Assumptions

- Transmission rates will remain comparable to current projections during the budget period.
- CAP will maintain its contractual agreement with Western Area Power Authority (WAPA) for transmission line maintenance.

Salaries and Related Costs

Salaries and related costs are the District's second largest expense category. CAWCD's workforce is projected to be comprised of 487.5 full-time equivalent (FTE) positions for the 2020 / 2021 budget period. CAGRD has a staff of 9 FTEs that are dedicated to CAGRD operations and the rest are dedicated to CAP operations. Of these, about one-third are assigned to the pumping plants and other locations along the aqueduct and the balance are assigned to Headquarters in Phoenix. Approximately 90% of CAWCD's workforce is dedicated to the core water delivery business, including water delivery activities, capital projects, extraordinary maintenance projects and O&M of underground storage facilities.

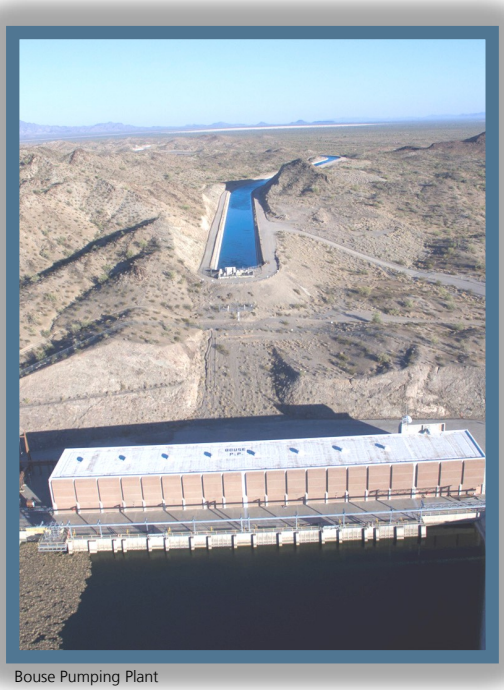
There are no FTE additions in the 2020 / 2021 budget from 2019 levels, though it is anticipated some vacant positions will be filled. Salaries and related costs are projected to increase as a result of filling of vacant positions, a shift of work from capital to operating projects (in 2021) and a budgeted 3% merit increase, which is based on current market surveys. Open positions are reviewed to determine the most effective and efficient manner to fill the needs of that position and are evaluated on supporting the strategic objectives of CAP. Open positions and the lag time in filling those positions create a vacancy savings equivalency of approximately 15 FTEs in recent years, which is included in the budget. The Organizational Summary section includes details on the District's organizational structure and FTE detail.

Major Assumptions

- No new positions are requested in the budget period, and include a factor for vacancy / salary savings equivalent of 15 FTEs to reflect turnover and retirements.
- Include an average merit increase of 3% per year to maintain a competitive compensation and benefits package.

Amortization and Depreciation

Amortization - The permanent service right (PSR) is an asset that represents the District's right to use the CAP system and collect revenues from operations, for which the District has incurred a repayment obligation to the United States.



Bouse Pumping Plant

Depreciation - The District records a depreciation expense for capital equipment additions and replacements and for capital projects. It is anticipated that this expense will increase each budget year.

Major Assumptions

- Record an amortization expense related to the PSR, which is approximately $23.0 million/year for 2020 and 2021.
- Include depreciation of $26.8 million for 2020 and $28.0 million for 2021.

Interest Expense

CAWCD pays interest on the federal repayment obligation and its bonds. CAWCD has 2 revenue bond issues outstanding: Series 2016 bonds relating to transmission projects and CAGRD 2019 bonds relating to CAGRD water acquisitions. The CAWCD Series 2016 bonds were sold at a premium and there is an annual amortization of the premium that decreases interest expense. Detailed debt schedules are contained in the appendix.

Major Assumptions

- Federal debt interest expense is $20.1 million for 2020 and $19.0 million for 2021.
- CAWCD bond interest expense is $2.0 million for 2020 and $1.9 million for 2021.
- CAGRD bond interest expense is $0.5 million for 2020 and $0.4 million for 2021.
- CAWCD bond amortization is $0.8 million for 2020 and $0.7 million for 2021.

Other Expenses

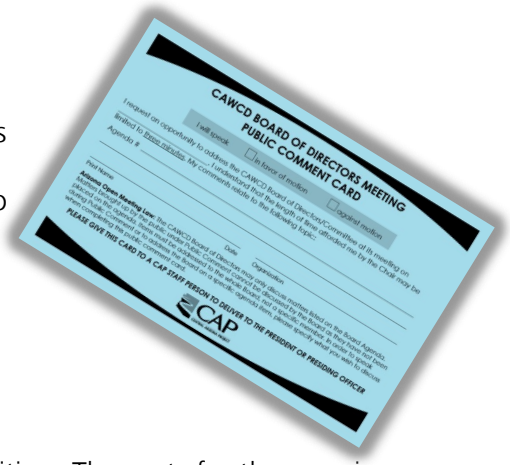
This category represents the remainder of the District's operating expenses. Operating expenses include outside services, materials and supplies, CAGRD water purchases and other business-related expenses (e.g., property and casualty insurance, rentals and Multi-Species Conservation Program expense). Transactions from internal sales and expenses such as water that CAGRD purchases and self-insurance premiums that the General Fund pays to the Captive Insurance Fund are eliminated at the consolidated level. Board elections occur every other year in even years and is one of the larger variances when comparing year-over-year. CAGRD replenishment obligation expense is the largest item in other expenses.

2020 / 2021 Budget Initiatives

The following list provides some key unique initiatives or expenses during the budget period:

(Thousands)	2020 Budget	2021 Budget
Cloud Infrastructure Design Support	$ 70	$ 400
Data Analytics Initiative	$ 500	$ 500
Weather Modification Program	$ 350	$ 350
Board elections	$ 600	$ -
Binational Conservation Project (BICS)	$ -	$ 1,670
Pilot System Conservation Program	$ 440	$ -
Compensated Mitigation	$ 371	$ 406
Recovery Capacity Agreements	$ 2,500	$ 3,000
CAP Enhancements for System Use Agreement	$ 500	$ 500

CAWCD Board of Directors Initiatives



The Board President formed a Customer Service Task Force in November 2017 to examine the service that CAP provides and determine what changes may be warranted to offer the best customer service experience within CAP's atmosphere of continuous improvement. The scope of the Task Force was to identify actionable improvements to CAP customer service processes, keeping the focus on processes and not specific outcomes or decisions. As a result of these meetings, several process changes were and are being implemented, including quarterly stakeholder Roundtables on relevant topics, an on-line public testimony system, summary Board Committee meeting notes, a 45-day look ahead for Board meetings and increased Board - Stakeholder engagement opportunities. The costs for the ongoing initiatives have been included in the budget.

In addition, costs for the development of a new Board strategic plan in 2020 have been incorporated into the budget.

Disbursements to Arizona Water Bank Authority

CAWCD utilizes the water storage tax to support the AWBA in purchasing LTSCs and in paying its administrative costs. These transfers are recorded as Disbursements to AWBA.

Extraordinary Maintenance Projects

Periodically, large maintenance projects are completed. They are typically over $2 million and will cause significant year-over-year change in operating expenses. These extraordinary maintenance projects while being expensed, will be removed from expenses in the rate process and added to the capital project rate component, "Big R".

Major Assumptions

- Include costs for key initiatives, Board initiatives and other items as indicated.
- Include final costs for the Salt River siphon as Extraordinary Maintenance Projects.
- The budget will include amounts to fund activities that support the Integrated Strategic Plan.
- In 2020. Disbursements to AWBA include $6.0 million for LTSC purchases and $0.6 million for administrative costs. In 2021, no disbursements for LTSC purchases and $0.5 million for administrative costs. All other water storage tax proceeds will be retained to be applied to CAP OM&R costs and repayment.
- The General Fund's budget will include amounts for proper maintenance of facilities and equipment.
- The CAGRD Account will include appropriate amounts to meet its replenishment obligation and support its water acquisition program.
- The Captive Insurance Fund will include expenses that are determined through actuarial calculations.

CAPITAL EXPENDITURES

Along with the District's right to use the aqueduct system, CAWCD is responsible for the maintenance, repair and replacement of its equipment and infrastructure. This responsibility entails a capital improvement plan that may add to the existing asset base, improve or extend the life of existing assets or replace assets as they wear out. In addition, there are ongoing capital expenditures for vehicles and other equipment. CAWCD has a capitalization policy to determine whether major maintenance efforts should be capitalized or expensed as repairs. Capital expenditures will vary year-to-year dependent on the projects being executed and available resources. Expenditures related to the CIP are summarized in the following table:

($ Millions)	Equipment	Capital Projects	Total
2017	2.8	36.9	39.7
2018	3.0	31.7	34.7
2019	1.9	23.2	25.1
2020	3.0	41.7	44.7
2021	2.4	31.4	33.8

Detail on each capital improvement project and a detailed equipment list is located in the Capital Budget section.

New projects scheduled to start during the 2020 / 2021 budget period include:

- Electromechanical Reply Replacements Phase 2
- Fire Protection System Upgrade at Mark Wilmer
- Microwave System Replacement
- Programmable Controller (PLC) Replacements at Waddell
- SCADA Replacement at Control Center

Major ongoing projects include:

- Backup Power System Replacements at Checks & Turnouts, and Microwave sites.
- Elevator System Replacement Phase 2
- Motor Exciter & Control Unit Replacements at Brady, Picacho & Red Rock
- Motor Exciter & Control Unit Replacements at West Plants

Major projects that are scheduled to be completed in the 2020 / 2021 budget period include:

- Circuit Breaker & Compressed Air System Replacements at Mark Wilmer
- Condition-Based Monitoring
- Electromechanical Replay Replacements Phase 1
- Fire Protection System Upgrades at South Plants

Major Assumptions

- Projects must be approved by the Project Steering Committee (PSC).
- Capital equipment over $100,000 must be supported by a financial/business case analysis.
- Fleet vehicles require a financial analysis to ensure the vehicles are being utilized as intended by CAWCD's fleet vehicle policy.

Strategic Reserves

Strategic reserves are a collection of individual accounts that have been established for a variety of specific purposes. The District maintains several special purpose reserves in addition to the strategic reserves (see pages 3-41 through 3-44). For this reason, even though net position may increase, the cash for the items driving the increase is deposited into these special purpose funds such as the water storage tax reserve and the CAGRD reserves, and consequently does not result in an associated increase in strategic reserves.

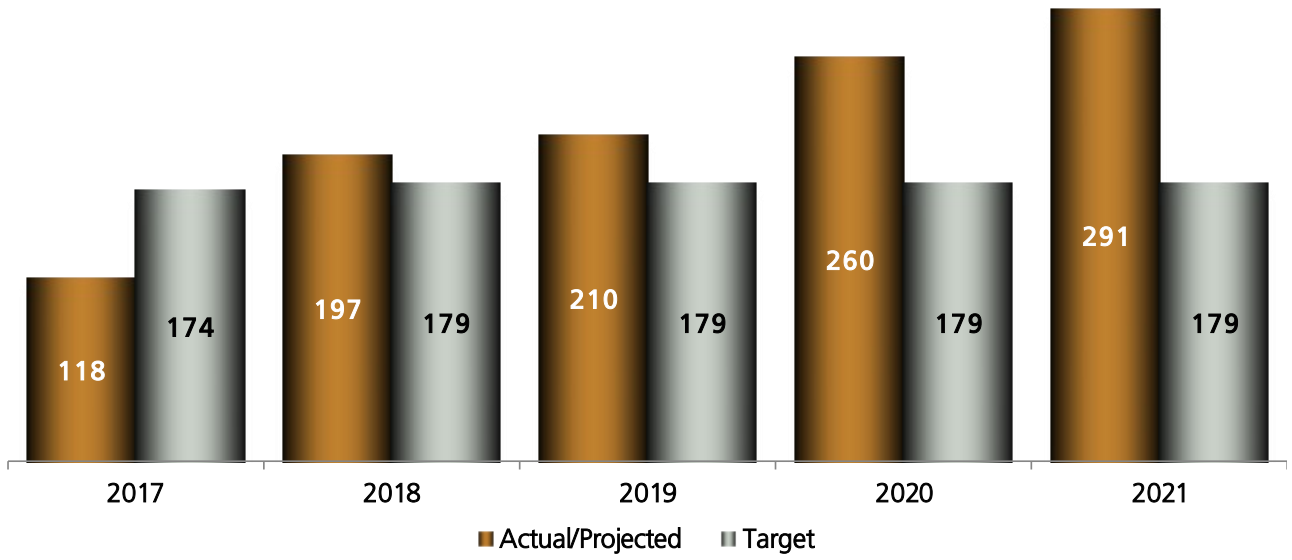
In 2018 as part of its biennial review of strategic targets, the Board revised its strategic reserve targets to $179 million. A review will be conducted in 2020 and the target may be adjusted as appropriate.

Water rates and other charges are set in such a way as to allow CAWCD to cover its costs and maintain adequate reserve level. As it is impossible to precisely break even every year due to the uncertainties associated with actual water deliveries and the fact that rates are set ahead of time, strategic reserve levels will fluctuate. In addition, fluctuations in capital spending as compared to the "Big R" revenue collection will also cause strategic reserves to fluctuate year-to-year.

Strategic reserves are projected to be above target at $260 million for 2020 and at $291 million in 2021. Though strategic reserves are forecasted to exceed budget, the Board determines tax rates annually and may modify the rate or direct it to another purpose. Budget assumptions are made that tax rates remain at current levels until the Board determines a change. The tax reserve is the cause of the increase.

Strategic Reserves

($ Millions)



Selected Financial Data

Statements of Revenues, Expenses and Changes in Net Position
All Funds
(Millions)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Operating Revenues	$ 269.2	$ 280.6	$ 290.5	$ 282.0	$ 311.2
Operating Expenses	(318.3)	(232.0)	(247.1)	(255.0)	(266.3)
Operating Income/(loss)	**(49.1)**	**48.6**	**43.4**	**27.0**	**44.9**
Non-operating Revenues	75.2	81.0	97.6	93.7	98.9
Non-operating Expenses	(42.9)	(26.2)	(29.5)	(28.3)	(21.1)
Total Non-operating Revenues/(Losses)	**32.3**	**54.8**	**68.1**	**65.4**	**77.8**
Change in Net Position	(16.8)	103.4	111.5	**92.4**	**122.7**
Cumulative-effect of change in accounting principles	0.0	(14.5)	0.0	**0.0**	**0.0**
Net Position at Beginning of Period	621.8	605.0	693.9	**805.4**	**897.8**
Net Position at End of Period	**$ 605.0**	**$ 693.9**	**$ 805.4**	**$ 897.8**	**$ 1,020.5**

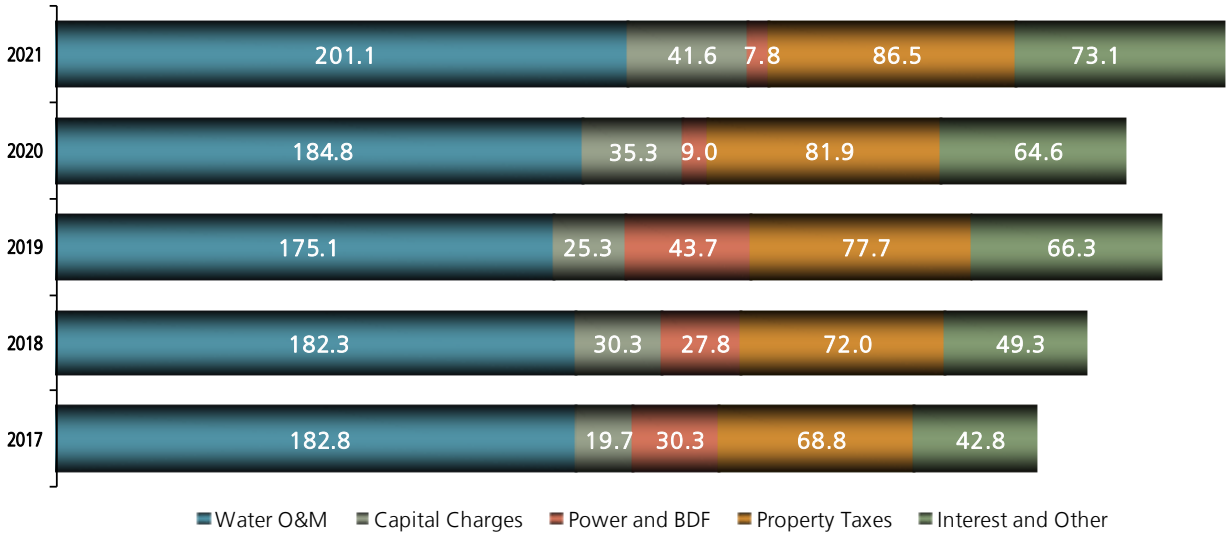
Net Position Summary
All Funds
(Millions)

By an order of magnitude, the largest amounts of Net Position are the federal repayment liability and the corresponding permanent service right asset. Following is a summarized Statement of Net Position. Detailed statements can be found on pages 4-7 through 4-9.

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Assets					
Cash and investments	$ 428.1	$ 491.7	$ 447.5	**$ 500.0**	**$ 567.5**
Receivables	47.2	47.9	51.2	**54.3**	**58.9**
Water inventory	104.3	100.8	201.6	**213.0**	**217.7**
Capital assets					
Operating assets, net	285.4	296.9	299.0	**317.0**	**322.7**
Permanent service right, net	1,112.2	1,089.0	1,065.8	**1,042.8**	**1,019.8**
Agricultural water allocation	88.7	88.7	88.7	**88.7**	**88.7**
Other Assets	127.6	116.7	129.5	**117.9**	**131.5**
Total Assets	2,193.5	2,231.7	2,283.3	**2,333.7**	**2,406.8**
Deferred Outflow of Resources					
Pension valuation	6.8	11.1	11.1	**11.1**	**11.1**
Total Deferred Outflow of Resources	6.8	11.1	11.1	**11.1**	**11.1**
Total Assets & Deferred Outflow of Resources	$ 2,200.3	$ 2,242.8	$ 2,294.4	**$ 2,344.8**	**$ 2,417.9**
Liabilities					
Repayment obligation	$ 1,109.7	$ 1,076.8	$ 1,043.9	**$ 1,010.9**	**$ 978.0**
Bonds	51.3	49.0	66.6	**62.8**	**56.8**
Non-Indian agriculture 9(d) debt	88.7	88.7	88.7	**88.7**	**88.7**
Other liabilities	310.7	286.2	232.3	**217.7**	**213.1**
Total Liabilities	1,560.4	1,500.7	1,431.5	**1,380.1**	**1,336.6**
Deferred Inflow					
Customer deposits	29.9	31.0	40.4	**49.8**	**43.7**
Pension valuation	5.0	17.1	17.1	**17.1**	**17.1**
Total Deferred Inflow	34.9	48.1	57.5	**66.9**	**60.8**
Net Position					
Investment in Capital Assets, less related debt	248.0	260.1	272.3	**302.6**	**320.7**
Restricted	84.6	100.5	61.3	**85.1**	**100.9**
Unrestricted	272.4	333.4	471.8	**510.1**	**598.9**
Total Net Position	605.0	694.0	805.4	**897.8**	**1,020.5**
Total Liabilities, Def Inflows & Net Position	$ 2,200.3	$ 2,242.8	$ 2,294.4	**$ 2,344.8**	**$ 2,417.9**

Total Revenues
(Millions)

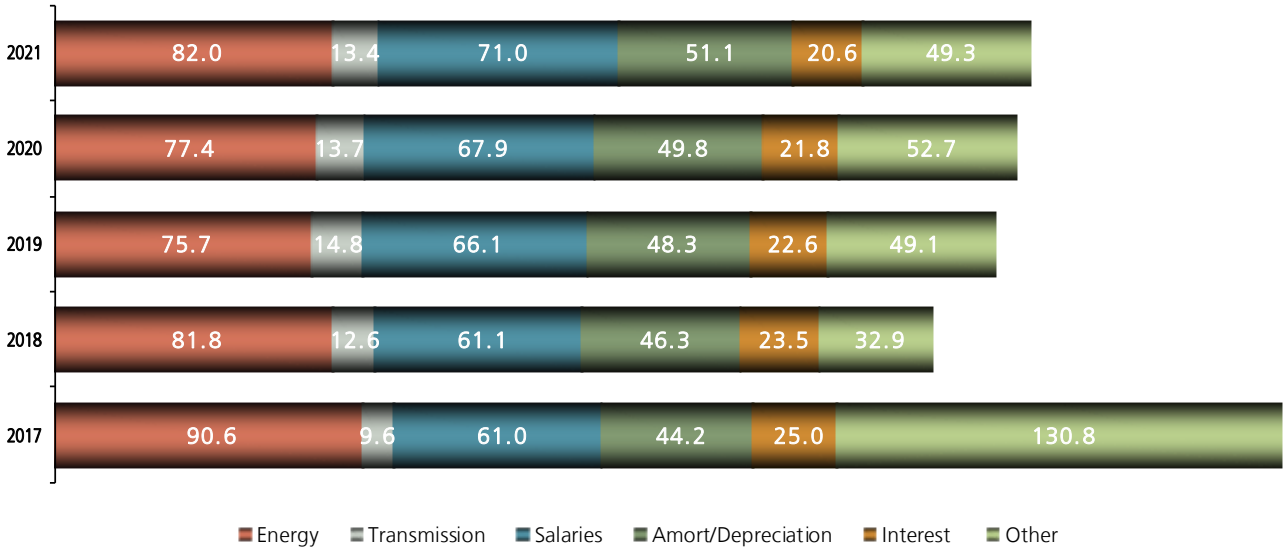
	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
General Fund Operating					
Water O&M charges	190.6	186.8	184.4	190.7	207.2
Water service capital charges	21.2	32.3	27.9	35.8	42.2
Power & BDF revenues	30.2	27.8	43.8	9.0	7.8
Other revenue	1.9	1.9	2.3	2.1	2.0
Total General Fund Operating	243.9	248.8	258.4	237.6	259.2
General Fund Non-operating					
Property taxes	68.8	72.0	77.7	81.9	86.5
Interest and other	5.8	7.5	18.5	11.0	11.5
Total General Fund Non-operating	74.6	79.5	96.2	92.9	98.0
General Fund Total	318.5	328.3	354.6	330.5	357.2
Other Funds and Accounts					
CAGRD	36.3	39.9	45.1	51.4	59.3
Supplemental Water	0.1	0.1	0.4	0.2	0.3
Captive Insurance	8.8	9.1	10.1	10.1	10.7
Eliminations	(19.3)	(15.8)	(22.1)	(16.5)	(17.4)
Total Revenue	$ 344.4	$ 361.6	$ 388.1	$ 375.7	$ 410.1



Total Expenses
(Millions)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
General Fund Operating					
Pumping energy	$ 90.6	$ 81.8	$ 75.7	$ 77.4	$ 82.0
Transmission	9.6	12.6	14.8	13.7	13.4
Salaries and related costs	59.9	59.9	65.0	66.7	69.7
Amortization and depreciation	44.2	46.3	48.2	49.7	51.0
Other expenses	104.7	30.2	37.8	37.5	37.8
Total General Fund Operating	309.0	230.8	241.5	245.0	253.9
General Fund Non-operating					
Interest and other	42.9	26.2	29.3	27.8	20.7
Total General Fund Non-operating	42.9	26.2	29.3	27.8	20.7
General Fund Total	351.9	257.0	270.8	272.8	274.6
Other Funds and Accounts					
CAGRD	19.8	5.5	18.2	17.6	20.8
Supplemental Water	-	-	-	-	-
Captive Insurance	8.8	11.5	9.7	9.4	9.4
Eliminations	(19.3)	(15.8)	(22.1)	(16.5)	(17.4)
Total Expenses	$ 361.2	$ 258.2	$ 276.6	$ 283.3	$ 287.4

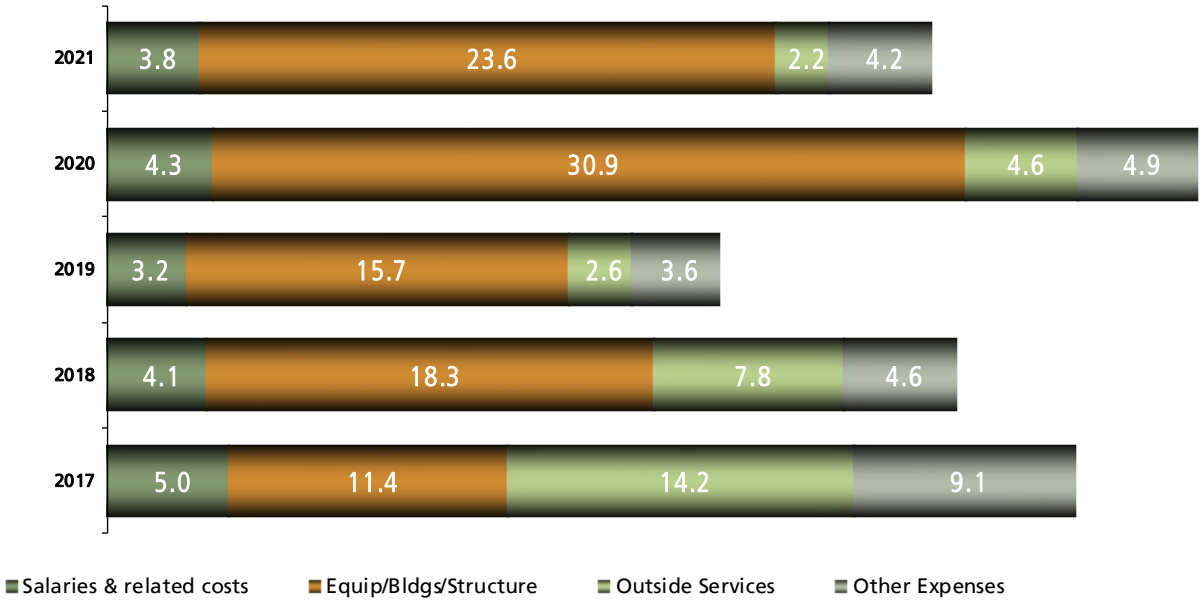
All Funds by Expense Type *($ Millions)*



Capital Expenditures
(Millions)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Salaries and related costs	$ 5.0	$ 4.1	$ 3.2	$ 4.3	$ 3.8
Equipment, buildings, and structures	11.4	18.3	15.7	30.9	23.6
Outside services	14.2	7.8	2.6	4.6	2.2
Materials, supplies & other expenses	0.6	0.5	0.4	0.4	0.3
Capitalized interest	3.3	-	-	-	-
Overhead expenses	5.2	4.1	3.2	4.5	3.9
Total Capital	$ 39.7	$ 34.8	$ 25.1	$ 44.7	$ 33.8

Capital Expenditures by Type *($ Millions)*



Colorado River

2016 Board Strategic Plan

For more than two decades, the Central Arizona Water Conservation District (CAWCD) Board of Directors (Board) has emphasized the importance of strategic planning. The first Strategic Plan was published in May 1996, identifying key strategies and specific programs to accomplish objectives. The Board updated or created new plans in 2006, 2010 and 2016.

In 2015, the Board created a Strategic Planning Task Force and held a strategic planning retreat to develop a road map and recommendations for updating the 2010 Board Plan. A stakeholder survey was conducted to collect the observations and opinions of the Board, staff, subcontractors and other significant stakeholders.

The 2016 Board Strategic Plan provides a comprehensive document for ensuring that CAP priorities, processes and activities are informed and guided by the strategic objectives of the Board. The 2016 Strategic Plan is organized around several Key Result Areas (KRA). Each KRA includes important strategic issues, along with objectives and action plans necessary to achieve each result. This hierarchy of issues, objectives and action plans serves as the context for many other planning activities at CAP, including the biennial budget, the "Big 5" organization-wide objectives, Board reports and employee performance goals.

In 2017, as part of the two-year budget process, staff linked the 2016 Board Strategic Plan to the 2018 / 2019 Business Plan. The 2020 / 2021 Business Plans are also linked to the 2016 Strategic Plan. This process allows staff to ensure that organizational goals and efforts are consistent with the strategic direction provided by the Board.

The 2016 Strategic Plan includes the following KRAs:

- Leadership & Public Trust
- Finance
- Project Reliability
- Water Supply
- Power
- Replenishment

Leadership & Public Trust

The 2016 Strategic Plan emphasizes increasing knowledge and visibility of CAP, collaboration with other governmental entities and stakeholders, as well as programs to educate and develop the future leaders of both CAP and the greater water community. This plan includes a number of action plans that support these strategic issues.

Finance

Coordination of numerous and complex financial strategies, programs, processes and clear and effective communication of financial issues to the Board and stakeholders are two important themes in this strategic plan that contribute to the objective of maintaining CAP's financial health. Since the bulk of CAP's revenue is created through water rates, maintaining a transparent, stable and predictable cost-of-service-based rate methodology continues to be an important initiative.

As the CAP infrastructure nears full utilization and grows older, the cost of capital expenditures is increasing. Consequently, the development of flexible financing alternatives and the coordination of sources and uses of funds also are becoming increasingly important. As new initiatives are undertaken in the other KRAs, particularly Project Reliability, Water Supply, Power and Replenishment, the financing, revenue generation and asset management aspects of those initiatives must also be appropriately addressed.

Project Reliability

Project Reliability encompasses not only the maintenance of the physical CAP system, but also the processes and people. Consequently, the 2016 Strategic Plan devotes a considerable amount of attention to managing the District's workforce, including objectives and action plans in the areas of maintaining a healthy, safe and secure work environment, and maintaining high levels of skill and job proficiency.

As more equipment and systems need replacement and the capital program grows, initiatives devoted to projects such as condition-based monitoring and reliability-centered maintenance are essential to the continued effective operations and maintenance of CAP's infrastructure.

Process improvements include the continued refinement of the Maintenance Excellence program, first adopted in 2003, into a comprehensive Enterprise Asset Management program, increased utilization of technology, enhanced project management techniques and multi-disciplinary partnerships. Continued attention to maintaining Business Continuity is included in the plan.

Finally, environmental stewardship and sustainability, risk management and preparedness for business disasters and threats continue to make up an important part of the strategic plan.

Water Supply

CAP has junior priority with respect to water rights on the lower Colorado River. This junior priority means that in times of shortage CAP will be one of the first to have its supply reduced; therefore, protecting and optimizing the CAP water supply is critical. The 2016 Strategic Plan includes a number of action plans in this area, from continuing to coordinate with other Arizona water agencies, the other basin states, the United States and Mexico on areas of common

interest, enhancing climate change adaptation strategies, exploring alternatives to protect and enhance the existing Colorado River supply and mitigate regulatory and environmental threats to the supply.

Power

CAP is the largest consumer of electricity in Arizona and the 2016 Strategic Plan places considerable emphasis on effectively managing existing power resources and reliable cost-effective transmission resources while also developing more reliable, sustainable and cost-effective replacements.

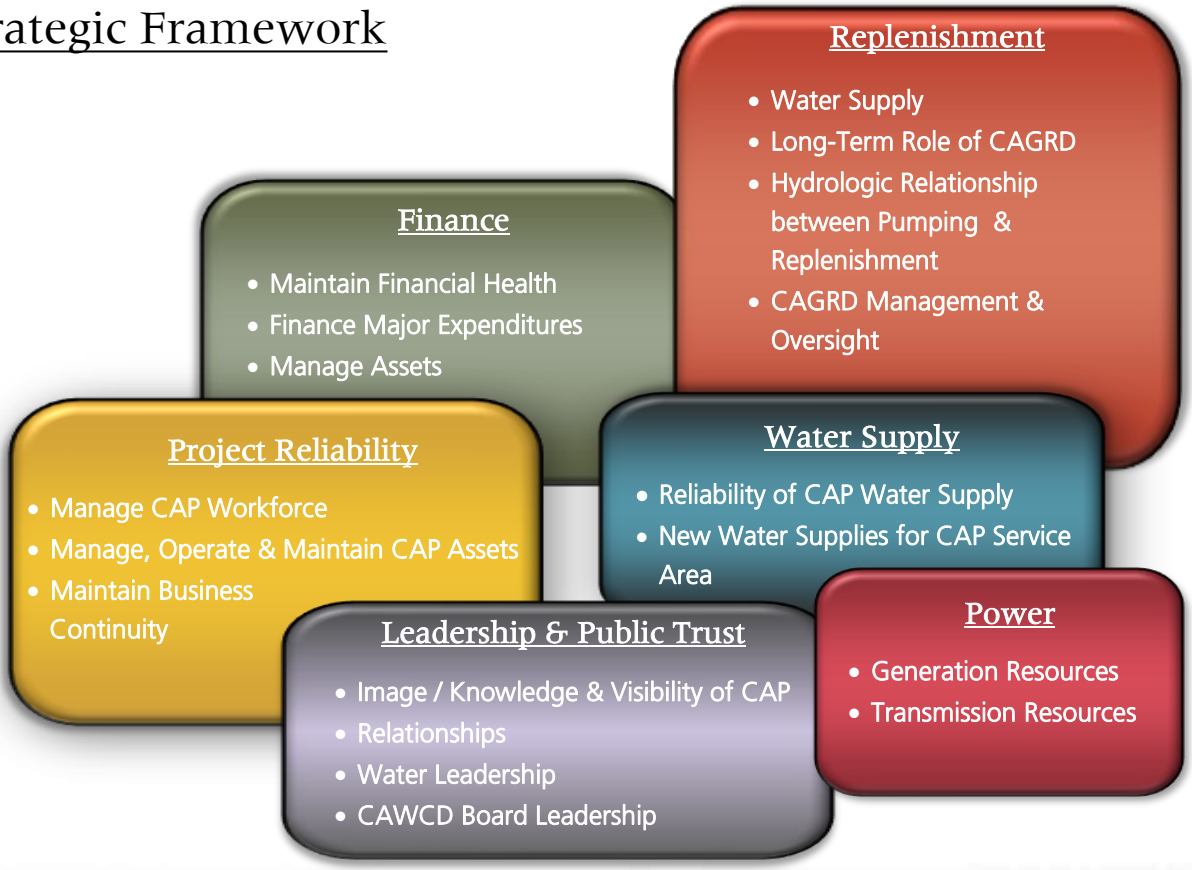
Replenishment

In accordance with legislation passed in 1993, Central Arizona Groundwater Replenishment District, an integral part of the District, provides replenishment services within the CAP service area to replace groundwater used by its members. CAGRD members are water users who, through the CAGRD, have proven a 100-year supply of groundwater but need to make their use of groundwater consistent with the state's Assured Water Supply Rules. The 2016 Strategic Plan supports the efforts that CAGRD must continue to acquire new water supplies to meet its future replenishment obligation.

NEXT STEPS

The 2016 Strategic Plan will continue to be implemented through the end of 2021. The Board will begin the process to review and build a new strategic plan in 2020 for implementation in 2022. In late 2019, an outside consultant will be contracted to facilitate the process to develop the new 2022 Board Strategic Plan.

Strategic Framework



Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
LEADERSHIP & PUBLIC TRUST	Image/ Knowledge and Visibility of CAP	Improve understanding about CAP and associated water, power and infrastructure issues	Increase opportunities for Board interaction with stake holders
			Increase opportunities for Board interaction with their peers in other organizations
			Develop a stronger connection between Board policy developments and CAP's strategic communications
			Develop a proactive communication plan to manage drought contingency planning and shortage declaration
		Continually enhance Board members' understanding of the issues impacting water, power and operations	Continue to provide training and opportunities for Board members and customers to interact and share information on relevant water, power and operations' matters through materials, workshops and briefings
			Implement Board approved post-NGS power strategies
	Relationships	Improve relationships with customers and stakeholders	Cooperatively identify goals and logistics for public processes with appropriate Board members, staff and stakeholders, being cognizant of all stakeholders and their respective interests
			Survey customers and key stakeholders on a periodic basis
		Improve relationships with constituents and the public-at-large	Continue to inform, engage and participate with the broad range of constituencies; advance CAP's role as a strong collaborator in the water industry
			Utilize a multitude of outreach channels including traditional, electronic and developing social media outlets
	Water Leadership	Cultivate future water leaders	Identify and develop opportunities for involvement in leadership organizations
			Coordinate workshops on federal and state legislative processes and activities regarding water quality, power generation, water reliability and similar areas of interest to CAP and stakeholders
		Continually inform current water leadership	Continue outreach to local, state and federal officials to enhance their understanding of CAP and its economic value to the State, as well as critical water, power and infrastructure issues
			Identify opportunities for CAP interaction with elected officials
	CAP Board Leadership	Equip Board members to effectively represent CAP and its positions	Identify opportunities for in-depth workshops/discussions on key issues facing CAP
			Provide thorough orientation to new Board members on the finances, operations and key initiatives of CAP

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
FINANCE	**Maintaining CAP's Financial Health**	Effectively communicate financial issues to Board, customers and stakeholders	Continuously evaluate and resolve financial threats
		Maintain effective financial strategies	Coordinate budget development, reporting, revenues, expenditures, rates, taxes and an appropriate reserve strategy
		Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	Continue to explore approaches to stabilize rates and/or establish reserves for shortages and other events that may interfere with predictable rates
			Evaluate appropriate pass-through mechanisms for unpredictable costs
	Financing Major Expenditures	Establish a flexible financing strategy	Coordinate financing mechanisms appropriate for CAP, including pay-as-you-go (i.e., rates and taxes), reserves, bonding and other arrangements
			Coordinate financing strategy with reserve strategy
		Coordinate projected uses of funds with appropriate sources of financing	Identify resources required and financing sources prior to approval of major initiatives
			Evaluate how costs of major expenditures can be properly allocated to the beneficiaries of those expenditures under appropriate contracts and policies
	Managing Assets	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	Maintain a capital replacement plan consistent with maintaining reliability of the system
			Develop guidelines, as appropriate, for expanded uses of CAP assets to meet emerging customer needs
			Develop and implement post-NGS strategies for use of power generation and transmission assets

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
PROJECT RELIABILITY	**Maintain Business Continuity**	Maintain preparedness for business and infrastructure disasters and threats	Utilize risk management analysis to assess investments in redundancy versus risk of failure
			Maintain preparedness for potential pandemics
			Protect and secure CAP's Information Technology assets and sensitive business information
			Prepare and plan for potential threats to CAP water operations, including refreshers of previous infrastructure threat assessments
			Maintain mutual aid partnerships with other regional utilities

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
PROJECT RELIABILITY	CAP Workforce	Maintain a safe and secure working environment	Maintain Voluntary Protection Program (VPP) Star status with Arizona Division of Occupational Safety and Health or equivalent
			Continue to foster CAP's culture of safety, including meeting established safety metrics
		Maintain CAP as an excellent employer	Maintain competitive pay and benefits
			Continue to provide training and career opportunities to retain employees
			Promote diversity in the workforce
		Maintain high levels of skills and job proficiency among employees	Maintain an effective apprenticeship program and journeyman level development
			Manage an effective pay for performance system
			Investigate incentives that promote employee job improvement and success
			Provide employee development processes and programs to improve job performance and capabilities
	Effectively Manage, Operate and Maintain CAP Assets	Provide reliable and cost-effective water deliveries	Maintain high levels of operational reliability consistent across all user groups
			Consistently meet scheduled water deliveries to customers
		Continue to address aging infrastructure	Continuously refine the comprehensive plan for assessing the condition of all CAP physical assets and developing data-driven and supported repair, rehabilitation or replacement recommendations
			Provide sufficient financial resources to repair, rehabilitate or replace infrastructure, as needed
		Maintain effective information technology systems	Evaluate and employ technology to improve operations and increase communications
			Meet emerging needs of existing and incoming workforce, as appropriate
		Achieve industry best maintenance practices	Continue to participate in external benchmarking with similar utilities
			Continue to participate in external reviews and assessments of CAP maintenance practices
			Assess CAP's maintenance practices against established internal processes utilizing proactive asset management protocols
			Schedule periodic Board field visits to critical CAP assets to foster direct knowledge of infrastructure capacity and conditions

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
WATER SUPPLY	**New Water Supplies for the CAP Service Area**	Complete and implement Water Wheeling Agreements	Assess the capacity of existing CAP infrastructure to facilitate water wheeling
			Complete and implement a standard form wheeling agreement and associated firming and wheeling contracts
		Explore opportunities and constraints to acquire additional water supplies, without harming existing CAP contractors	Explore the institutional framework for water supply acquisition and develop policy and strategies, as appropriate
			Analyze availability and viability of reclaimed water as a component of new supplies to be acquired by CAP
			Explore demand management as a component of water supply planning
			Explore possibilities for public/private partnerships

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
WATER SUPPLY	Reliability of the CAP Water Supply	Optimize reliability and sustainability of CAP water supply	Develop strategies to optimize CAP's use of Colorado River water supplies
			Actively influence, participate in and implement Colorado River management decisions
			Actively participate in decision making regarding bi-national programs
			Collaboratively support and participate in programs, studies and pilot programs to reduce system losses and to conserve or augment water supplies
		Continue to support augmentation of Colorado River water supply	Support new and updated augmentation studies and pilot programs
		Reduce risk associated with CAP's junior priority	Identify, develop and implement programs to address near-term risks to Colorado River water supply and the structural deficit
			Participate in Basin States discussions regarding shortage conditions not covered by the 2007 Shortage Sharing Guidelines
			Continue to look for opportunities to change priority in Congress
		Manage risk and opportunities posed by climate change	Identify potential impacts of climate change on CAP supplies
			Conduct a scenario planning process to develop climate change adaptation strategies
		Implement recovery plan	Implement recovery plan in cooperation with stakeholders to improve connection between Arizona Water Banking Authority storage and CAP recovery
			Develop cooperative agreements to implement recovery, where appropriate, including direct recovery and recovery through exchange
			Evaluate potential need for treatment works to implement recovery operations
			Permit and construct facilities needed to implement recovery

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
POWER	Generation Resources	Effectively manage costs	Continue to participate in NGS Operations & Maintenance committee and audits
			Continue use of Energy Risk Oversight Committee to make decisions on energy purchases
			As opportunities arise, continue to sell NGS energy scheduled for project use and buy replacement energy at a lower cost to reduce CAP energy costs
		Maintain existing generation resources until appropriate alternatives are available	Monitor and aggressively protect and promote CAP's interests relating to NGS
			Support renewal of NGS land, water, participation and coal agreements
			Participate in federal processes (e.g., National Environmental Policy Act processes / National Renewable Energy Laboratory studies) that affect continued operation of NGS
		Secure reliable, sustainable, cost-effective generation resources	Prepare for eventual replacement of NGS through implementation of the post-NGS power strategy, which includes the evaluation of the alternative generation resources
			Continue to investigate feasibility of distributed generation
			Identify and evaluate short-term / back-up generation resources
	Transmission Resources	Effectively manage costs	Pursue transmission alternatives that wlll reduce net CAP energy costs
		Enhance transmission reliability	Continue to participate in regional transmission planning and influence line siting to benefit CAP
			Participate in projects to create CAP transmission redundancy where feasible and appropriate
			Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative generation resources

Strategic Plan

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
REPLENISHMENT	**Water Supply**	Obtain sufficient water supplies to meet long-term replenishment obligation	Aggressively acquire water supplies as outlined in the 2015 Plan of Operation and the Water Supply Acquisition Program
			Develop and implement revenue generation mechanisms (e.g., bonding, rates, fees) that are sufficient to carry out the Water Supply Acquisition Program
			Collaborate with stakeholders to evaluate conservation measures that could reduce the CAGRD's replenishment obligation
	Long-term Role of the CAGRD	Identify and implement appropriate conditions of membership	Evaluate potential policy to require future CAGRD member lands to provide water supplies as a condition of membership
			Assess the potential requirement that prospective CAGRD members commit effluent and/or reclaimed to reduce CAGRD's replenishment obligation
		Consider alternative strategies for replenishment	Serve as a resource to other entities wanting to develop a replenishment program
	Hydrologic Relationship between Member Pumping and CAGRD Replenishment	Identify CAGRD roles, responsibilities and capabilities	Encourage ADWR efforts to investigate areas where excessive groundwater declines are possible
			Investigate feasibility of developing new recharge projects in identified areas of excessive groundwater declines, as appropriate
			To the extent feasible, replenish in areas of hydrologic impact of groundwater withdrawals by CAGRD members
			Investigate possibility of direct delivery to CAGRD members with water treatment capability
	CAGRD Management and Oversight	Review CAGRD status as compared to projections in the Plan of Operation	Continue to prepare annual operations report detailing current enrollment to corresponding replenishment obligations as a supplement to the annual report filed with ADWR
			Schedule annual updates to the Board and Legislature on CAGRD obligations and activities
			Prepare and publish a Mid-Plan Review in the fifth year of each plan
			Ensure adequate funding of CAGRD administration and long-term operations
		Continue coordination between ADWR and CAGRD	Maintain communication protocols regarding application review and issuance of certificates of assured water supply, including modifications, that rely on CAGRD replenishment

Canal at AZ Route 87

Performance Measures

"Big 5"
Organization-Wide Goals

When the 2011 Integrated Strategic Plan was implemented, one of the Action Plans was to "develop and communicate common, organization-wide performance goals for management and employees annually." It was originally anticipated that this initiative might result in the next generation of the Balanced Scorecard, which was the performance measurement tool at that time.

As the Strategic Plan became the tool to track and manage strategic initiatives, and detailed performance measures were being effectively managed at the department/unit level, CAP senior management sought to identify a short list of unifying essential metrics, fundamental to the achievement of CAP's mission, for which the entire organization shares responsibility and can take individual ownership.

The result of this work was the "Big 5 Organization-Wide Goals." Each of the five goals represents a different portion of the KRA's. As much as possible, objectives have been chosen that can endure from year to year. In addition, CAP implemented a modest incentive compensation program connected to the "Big 5" - each employee is eligible to receive $100 for each of the goals that is achieved each year. Detailed progress is reported quarterly in CAP publications.

A distinctive "Big 5" symbol was designed to label important communications related to the organization-wide goals. While each of the "Big 5" goals includes one or more detailed, measurable objectives, the basic premise of each goal is captured by a characteristic action verb.

From 2012 to 2014 all five of the "Big 5" goals were met. As this program continues, there are lessons learned and goals modified slightly to reflect refined targets. These goals are chosen because they are challenging, and in 2015 only four of the five goals were met. With renewed focus CAP was successful in achieving the identified goals for 2016. In 2017 and 2018, CAP met four-of-five goals, falling short on the target for preventable vehicle accidents in both years. This led to a renewed focus on vehicle safety and the creation of the Get Out and Look (G.O.A.L.) Initiative.

The goals for 2018 largely mirrored those for 2017, with a few notable exceptions. First, water deliveries goals were set at 1,513,120 acre-feet and the protection volume goal was changed to 149,000 acre-feet. Second, CAWCD increased its required training goal from 90% in 2017 to 92% in 2018. The District was successful at meeting each of its 2018 goals, with the exception of preventable vehicle accidents. The District had 14 accidents, while the goal remained at 8.

The full year 2018 edition of the "Big 5" Organization-Wide Goals is shown on the following diagram.

For 2019, CAP's goals remained the same as previous year for the "Big 5" goals related to water delivery and protecting Lake Mead; the water delivery target for 2019 are 1,352,778 acre-feet and due to mandatory reduction and a result of DCP, the water protection goes to zero.

CAP's financial goal for 2019 remains the same, completing planned work within 95-102% of budget.

In regard to Project Reliability goals, minimizing forced outages (FOX) and compliance with outage work plans continues, but the outage compliance goal was increased from 85% to 90%.

CAP also increased its goal of completing required safety awareness and health training during the year to 95%.

Perhaps just as critical to CAP's service to Arizona and personal safety, is CAP's cultural values. It is CAP's culture that it is management's responsibility to set the tone for communication, teamwork and collaboration across all units within and outside of CAP. To enhance the impact of manager/director visits, the required two in-field visits must include a presentation highlighting one of the five Leadership Challenge practices: challenge the process, model the way, encourage the heart, inspire a shared vision, or enable others to act.

The 2019 edition of the "Big 5" Organization-Wide Goals is shown below, and the midyear 2019 "Big 5" progress report is shown on the following pages.

OPTIMIZE	MAINTAIN	INCREASE	CONTROL	PROMOTE
RELIABILITY, SUSTAINABILITY AND DELIVERY OF COLORADO RIVER WATER SUPPLIES TO THE SATISFACTION OF CAP'S CUSTOMERS AND STAKEHOLDERS	AND IMPROVE THE LONG-TERM RELIABIITY OF CAP SYSTEM FUNCTIONS BY PERFORMING THE RIGHT MAINTENANCE AT THE RIGHT TIME IN A MANNER THAT IS SAFE, EFFICIENT AND COST-EFFECTIVE	SAFETY AWARENESS, MANAGE SAFETY PERFORMANCE AND PROMOTE SAFE, RESPONSIBLE BEHAVIOR	COSTS AND PROMOTE RATE STABILITY	CAP'S CULTURAL VALUES, FOCUSING ON COMMUNICATION, TEAM-WORK AND COLLABORATION ACROSS ALL UNITS WITH CAP

2019 DELIVERIES

OPTIMIZE

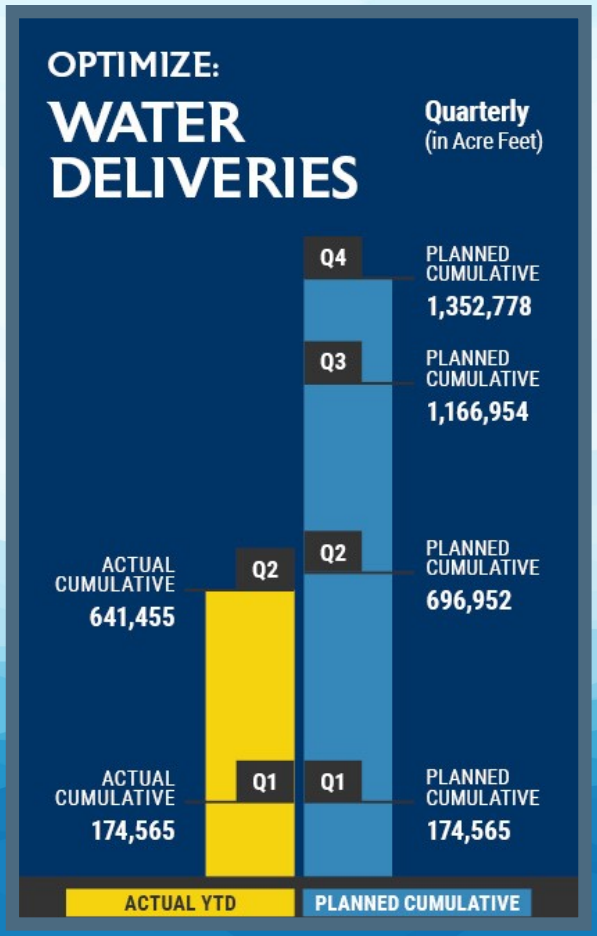
RELIABILITY, SUSTAINABILITY AND DELIVERY OF COLORADO RIVER WATER SUPPLIES TO THE SATISFACTION OF CAP'S CUSTOMERS AND STAKEHOLDERS

This quantity will be measured in acre-feet of deliveries of CAP water to customers set at the beginning of the year based upon orders placed with CAP Water Control Department. The quantity may be adjusted during the year based on changes in customer orders approved/recorded by the CAP Water Control.

For 2019 the adjusted Customer Delivery Target is 1,352,778

The quantity may be adjusted during the year based on requested changes in customer orders that are approved/recorded by CAP Water Control.

Actual Scheduled:
1,352,778 in Water Management System (WMS) based on 2019 water orders. End-of-year success will be determined by meeting all scheduled customer requests for water delivery, which may result in adjustments to the targeted budget.



2019 INFRASTRUCTURE

MAINTAIN

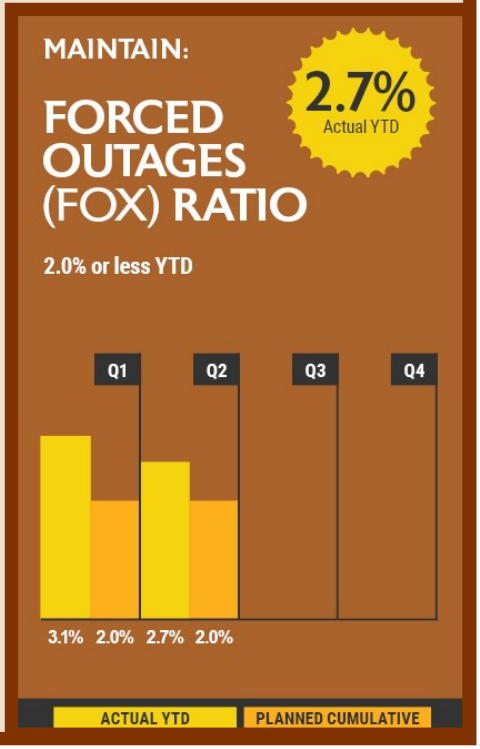
AND IMPROVE THE LONG-TERM RELIABIITY OF CAP SYSTEM FUNCTIONS BY PERFORMING THE RIGHT MAINTENANCE AT THE RIGHT TIME IN A MANNER THAT IS SAFE, EFFICIENT AND COST EFFECTIVE

This goal is to measure the effectiveness of CAP's planning, scheduling, work execution and closeout processes with regard to completing identified outage work within the seasonal outage window.

For 2019 the Outage Compliance goal is to meet or exceed 90% completion rate for seasonal outage work orders. The goal for Forced Outages is 2.0% or less.

A forced outage occurs when a system failure causes a main unit's protection circuit to engage and shut the unit down. A high forced outage rate can impact the safety of the CAP workforce and impede CAP's goal of providing reliable and cost-effective water deliveries.

Outages are planned around assessing the condition of critical equipment, conducting critical maintenance, or modifying assets that are normally required to operate continuously to meet customer deliveries. This metric does not include routine items such as meetings, weekly and monthly PMs, etc.



2019 SAFETY PERFORMANCE

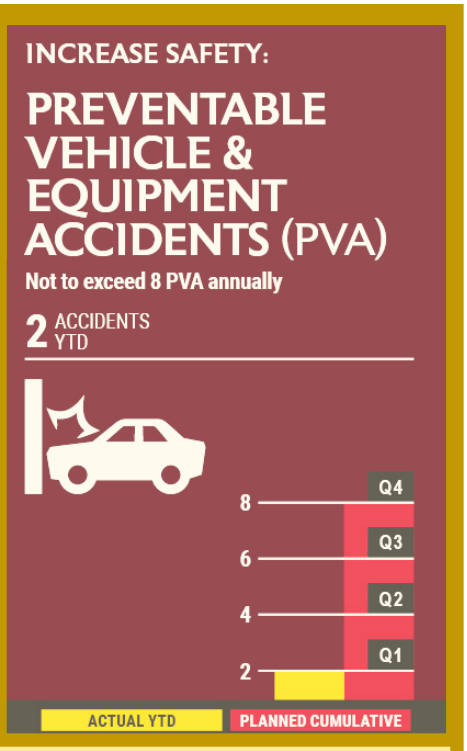
INCREASE

SAFETY AWARENESS, MANAGE SAFETY PERFORMANCE AND PROMOTE SAFE, RESPONSIBLE BEHAVIOR

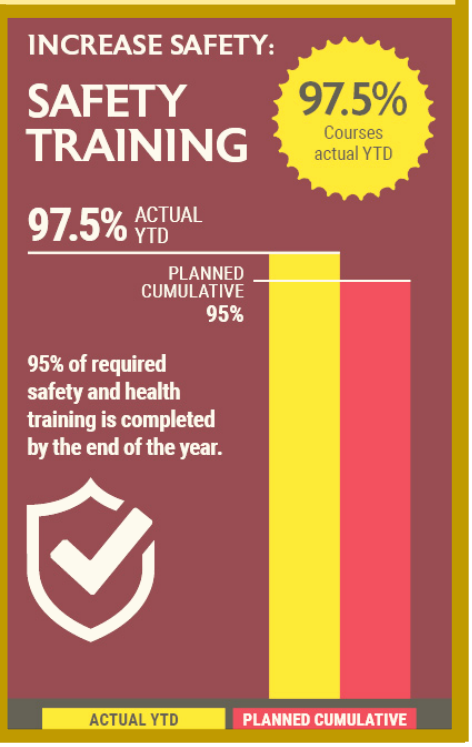
This goal focuses on the training that is provided to meet regulatory and CAP requirements to ensure employees have the necessary skills to perform their jobs safely.

For 2019 the goal for Required Safety and Health Training is 95% completed by end of the year.

A PVA is an accident involving a vehicle or other driver-operated equipment, which, through reasonable efforts taken by the operator, could have been prevented. Tracking and preventing PVA's is important because, while these incidents are often minor, they have the potential to result in catastrophic injuries and damage. Often, if little incidents can be controlled, the larger ones can be avoided.



When an employee is notified of a requirement, it is their responsibility to make sure they attend and stay current including scheduling a make-up session if necessary. Managers and Supervisors are to encourage attendance and provide the schedule to do so.



2019 COST CONTROL

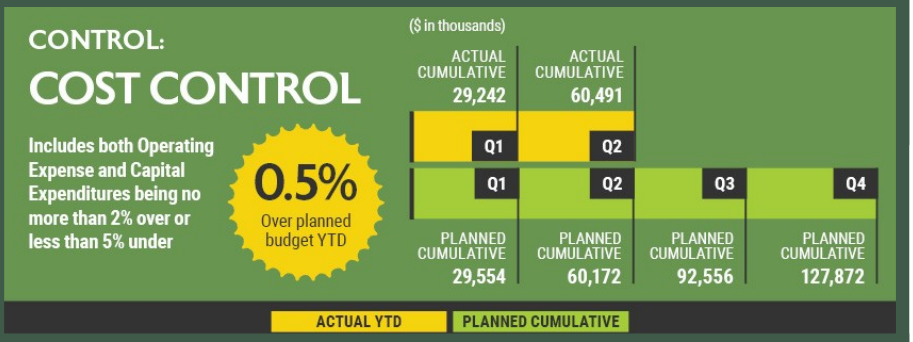
CONTROL

COSTS AND PROMOTE RATE STABILITY

This goal includes both annual operating expenses and annual capital expenditures. Power, transmission, amortization and depreciation are excluded from this goal as they are dependent on factors that are not controllable by departments, such as water deliveries and accounting guidelines that are managed at a District level.

The 2019 goal can be achieved by both operating and capital expenditures being no more than **2% OVER** or less than **5% UNDER** the Board-approved budget.

This goal focuses on financial planning accuracy. Each department builds its budget based on planned work to meet its business plan. Department budgets then are combined to create a District budget that the Board ultimately approves. The budget is used to develop water delivery rates. Accurate planning helps support accurate rate forecasts for stakeholders.



Costs include both operating expenses and capital expenditures ($ in thousands)

2019 COMPANY CULTURE

PROMOTE

CAP'S CULTURAL VALUES, FOCUSING ON COMMUNICATION, TEAM -WORK AND COLLABORATION ACROSS ALL UNITS WITHIN CAP

This goal highlights management's support of the Big Five goal to promote CAP's cultural values, focusing on communication, teamwork and collaboration across all units within CAP.

For 2019 the goal for promoting cultural values, communication, teamwork and collaboration within CAP is at least 95% of Managers and Directors complete 2 in-field visits during the year.

Communication, teamwork & collaboration across all units within CAP

PROMOTE:

CULTURAL VALUES

Managers and Directors complete two in-field visits during the year

12% Participation YTD

	ACTUAL YTD	PLANNED CUMULATIVE
Q1	6%	24%
Q2	12%	48%
Q3	–	72%
Q4	–	95%

ACTUAL YTD | PLANNED CUMULATIVE

CAP's commitment to Safety and Health, VPP and Leadership competencies identified in POD (Personal & Organizational Development) can be demonstrated through presentations to departments in a location that is not under current Director or current reporting location.

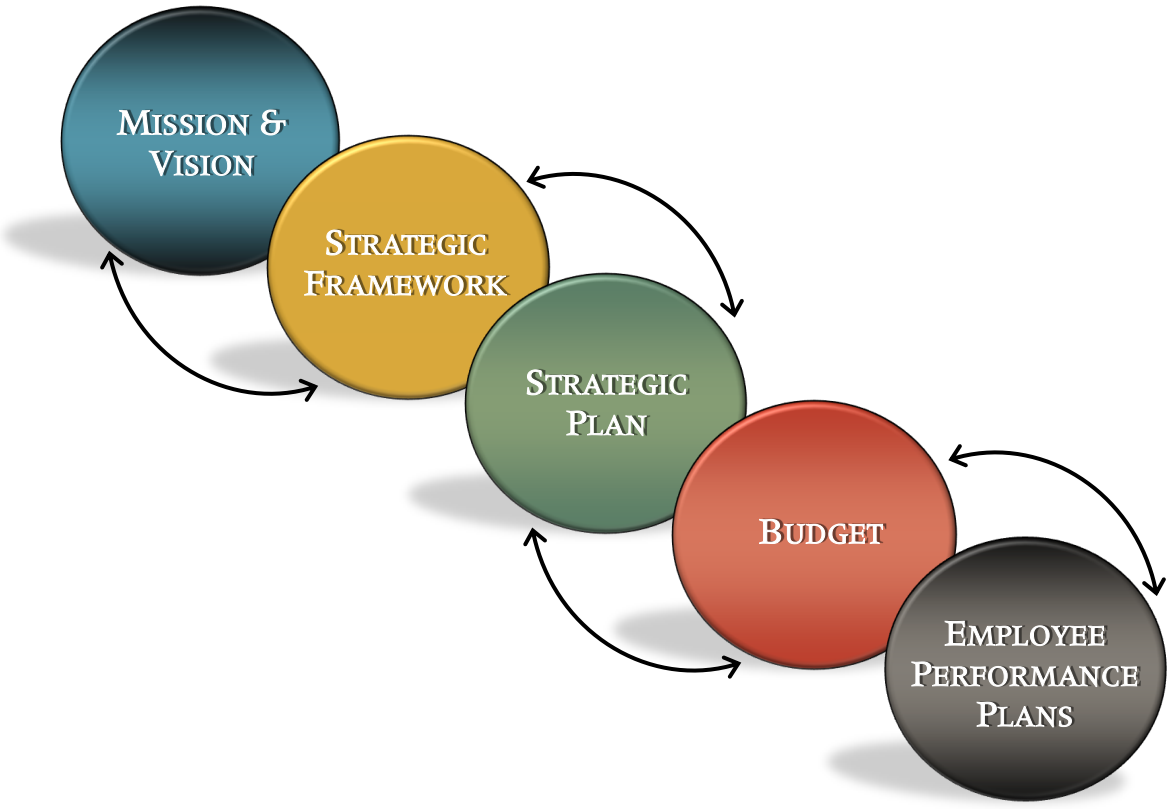
Financial Planning & Controls

The CAP budget is a fundamental component of CAP's comprehensive Biennial Financial Planning Process, which integrates and incorporates the financial aspects of planning that occur at every level. The Strategic Framework and Strategic Plan serve as the foundation for the development of the budget.

During the budget process, those portions of the Strategic Plan that pertain to the budget period are selected for inclusion in the business plans for each organizational unit along with critical ongoing activities. In addition to ensuring alignment with the Strategic Plan, the business plans focus on closing gaps between actual and targeted performance measures.

The budget document includes both the business plans for the budget period as well as the financial and human resources necessary to achieve the goals and objectives identified in the business plans.

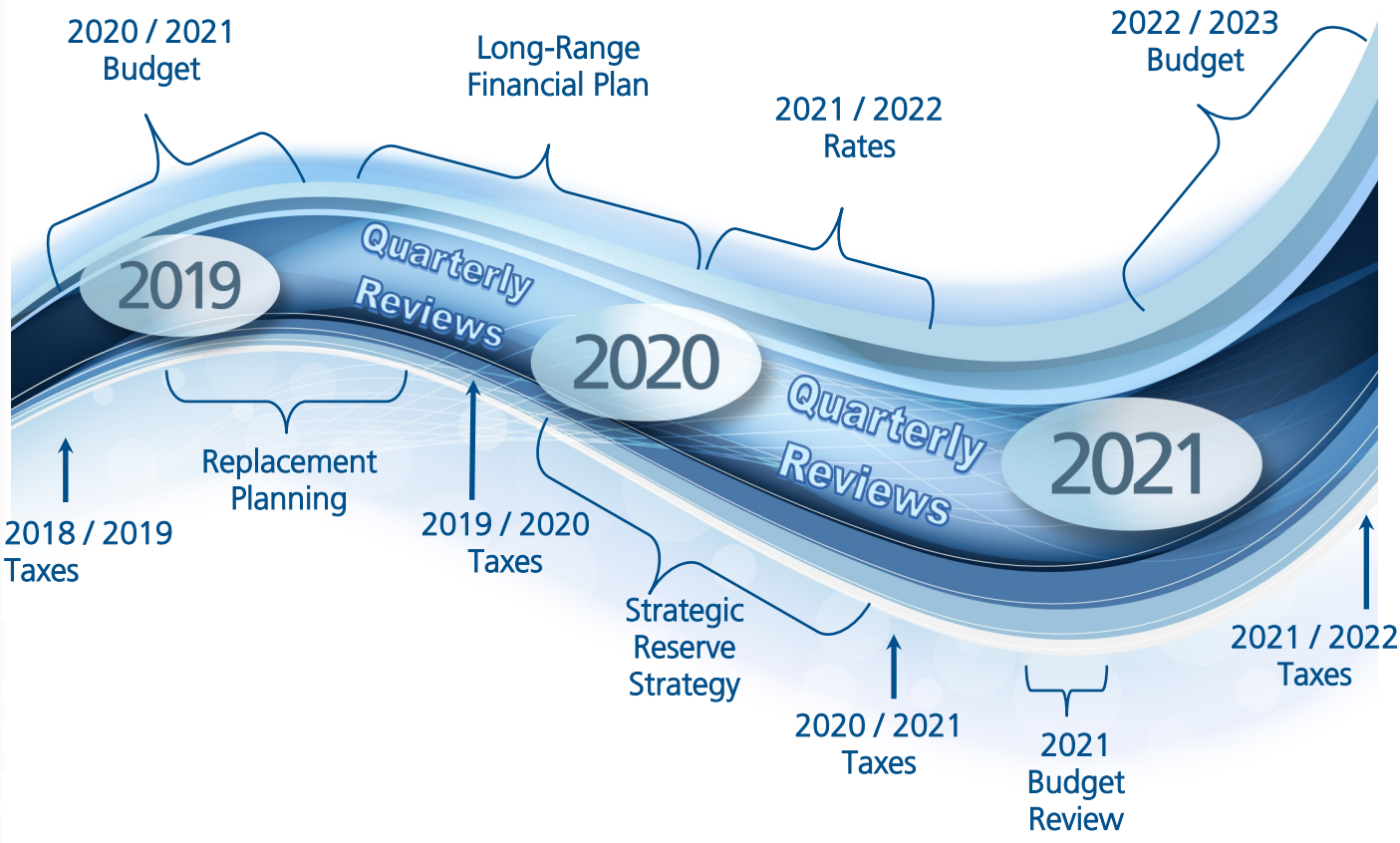
CAP uses enterprise-wide performance measurements to evaluate accomplishment of its strategic objectives.



Biennial Financial Planning Process

CAP utilizes a Biennial Financial Planning Process that includes the strategic plan, the budget and business plan, long-range financial plan (LRFP), rate-setting and reserve planning. Budget and business planning occur in odd years for the subsequent two years and are more tactical in nature. In even years, the focus is on more strategic activities, such as long-range financial planning, rates, and reserves.

The biennial process provides the ability for staff to focus on budget one year and the next year to focus on the more strategic areas requiring more in-depth analysis of issues affecting CAP. As the focus shifts back and forth between short– and long-term planning horizons, the work done in each year of the biennium complements and enhances the work in the alternate year; and each year in the process serves as the basis for the work in the following year to allow staff to work more efficiently and effectively. Quarterly reviews provide the means to measure performance against the established goals. The financial planning process is illustrated on the following diagram:



The 2020 / 2021 biennial budget covers two one-year periods. As the first year (2020) draws to a close, the second year (2021) of the budget will be reviewed to determine if the budget should be amended to incorporate any significant impacts. For further detail, see Biennial Budget Amendment Process on page 3-26.

Budget Basis & Format

Both the financial statements and the budget are reported on a calendar year using the accrual basis of accounting for all funds and on a combined basis. Revenues are recognized in the period they are earned and expenses are recognized in the period they are incurred, regardless of when cash is exchanged. The basis of budgeting and accounting are discussed in more detail on page 7-33.

All financial statements contained in the budget are presented on a comparative basis, including two years of actual activity for 2017 and 2018, financial projection for 2019 and two years of budget activity for 2020 and 2021. The Statement of Net Position summarizes current and long-term obligations (liabilities) and assets available to meet those obligations, as well as deferred inflows and deferred outflows. The Statement of Revenues, Expenses and Changes in Net Position (income statement) summarize operating and non-operating expenses, and the revenues available to cover those expenses resulting in the change in net position.

Biennial Budget Process and Calendar

The 2020 / 2021 budget process began in March 2019 with the distribution of the current Strategic Plan and the associated action plans to managers and supervisors, in order to provide the basis for development of their budgets and business plans.

Development of the budget is a "bottom-up" process. Each cost center (the lowest organizational level) is required to prepare a detailed budget request; the requests are then consolidated to develop CAP's budget. In addition to the two-year operating budget and business plan, a six-year capital budget is developed, two budget years and four advisory years, that includes projected capital projects and a forecast of capital equipment needs.

The operating and capital budgets are developed simultaneously. By doing so, CAP is able to accomplish manpower planning and allocate resources to ensure the achievement of goals and objectives. In addition, to the extent the capital budget may influence the operating budget, the impact can be analyzed, quantified and incorporated into the operating budget. Business plans are developed at the department level.

As shown on the following page, there are four distinct phases that lead to development and ultimate approval of the budget. Internal review takes place from June through September and external review by CAP's customers and the Board occurs in October and November.

Following approval of the 2020 / 2021 budget, staff begins work on the next LRFP, incorporating any new strategies, objectives and trends identified during the budget process. Longer-term issues are evaluated to determine the impact on CAP operations and finances, including reserves and rates. This work then becomes the launching point for the subsequent budget.

Financial Planning Calendar

2020 / 2021 Budget Cycle	Requested Budget	April-May 2019	Departments develop and submit Strategic Plans
		June-August 2019	Cost centers develop budget and submit to Finance for review & consolidation
		August - September 2019	General Manager review & changes CAWCD Board Officers' review
	Staff Proposed Budget	October 3, 2019	Consolidate & mail budget to Board
		October 10, 2019	Budget briefing to review proposed 2020/2021 budget
	Committee Recommended Budget	October 17, 2019	Finance, Audit & Power Committee meeting to review budget & make recommendation to Board
	Board Approved Budget	November 7, 2019	Board of Directors review & approval of budget
Long-Range Planning Cycle	Long-Range Financial Plan Rate-Setting Reserve Planning	June 6, 2019	Update Final 2020-2024 rate schedule & establish 2019/2020 tax rate
		January-March 2020	Identify & analyze strategic issues, develop LRFP to include reserve targets, 2021-2026 rate & tax recommendation
		February 20, 2020	FAP Committee review strategic reserve targets & make update recommendation (as necessary)
		April 2, 2020	Preliminary 2021-2026 rate schedule posted
		April 9, 2020	Rate/Tax briefing to review staff preliminary 2021-2026 rates & 2020/2021 tax recommendation
		April 16, 2020	Finance, Audit & Power Committee to review staff preliminary 2021-2026 rates & 2020/2021 tax recommendations & make recommendations to Board
		May 7, 2020	Board of Directors adopt Preliminary 2021-2026 rates & 2020/2021 taxes
		June 4, 2020	Board of Directors approve Final 2021-2026 rates & 2020/2021 tax rate
		June 3, 2021	Board of Directors approve Final 2022-2026 rates update (as necessary) & 2021/2022 tax rate
2021 Budget Amendment		August 2020	Finance develops 2021 budget review and amendment (as necessary)
		October 2020	Finance, Audit & Power Committee review 2021 budget amendment and recommend update (as necessary)
		November 2020	Board of Directors review & approval of 2021 budget amendment (as necessary)

Budget Guidelines

Organization-wide assumptions are shown in the Biennial Budget Overview on page 2-1. The following budget guidelines and assumptions were conveyed to cost centers to develop the 2020 / 2021 budget:

- Human resources (staffing)
  - New positions required to address strategic issues identified in the CAP Strategic Plan must be reviewed and approved by the General Manager (GM).
  - Staffing justification must be completed to evaluate alternatives when replacing and requesting new positions.
- Budgets must be developed using the CAP Strategic Plan and associated action plans.
- Budgets must not include any contingency funds.
- Capital projects must meet specified criteria set forth by the Project Steering Committee (PSC) to be included in the budget. Only capital projects approved by the PSC and GM to be included in the budget.
- Supporting detail must be provided for training, outside services and capital equipment.

Budgetary Controls

The operating and capital budget must be approved by the Board prior to the beginning of the budget period. At the time the budget is approved, the Board delegates budget management authority to the GM within set parameters:

Operating Budget – Execute the budget and approve budget variances on a line item basis as follows:

- Up to 15% or $1 million, whichever is less, within any fund, provided that the total expense within the affected fund does not exceed budget by the greater of $250,000 or 2% of the annual budget.
- In the case of the General Fund, non-operating expenses are considered separately from operating expenses.
- Because of market volatility, energy and transmission are excluded from this process and administered by an Energy Risk Oversight Committee.
- Central Arizona Groundwater Replenishment District (CAGRD) Water for Recharge to meet obligations is excluded.
- Board approval is required for contracts over $250,000.

Capital Budget – Execute the budget and approve budget variances for total capital spending up to 102% of the annual budget. Board approval is required for any contracts over $250,000.

During the budget period, the following controls are in place to manage the budget:

- Cost center managers and supervisors are required to prepare quarterly budget-to-actual variance reports explaining year-to-date and full-year projected variances that fall outside a defined range.
- Finance is required to provide a quarterly budget and financial review to the Management Council and Board. This review reports year-to-date operating and capital budget performance and provides a full-year forecast of revenues and expenses by fund and the capital budget. If the full-year forecast indicates that the GM's variance authority may be exceeded, the Board is requested to provide direction to the GM for variance authority for that item.
- Budget transfers are not allowed between funds and line items.
- End-of-Year Balances – Budgeted funds remaining at the end of the budget year are not rolled forward to the next budget year.
- Capital (includes projects and capital equipment) – For a new capital project not in the budget, it must be reviewed and approved by the PSC and managed within the capital budgetary controls. Capital equipment not in the budget must be approved by a Management Council member and is managed within the current capital budgetary controls.

Biennial Budget Amendment Process

Once the budget is approved by the Board, it is CAP's policy to amend only the second year of the budget if necessary. Prior to the beginning of the second budget year (i.e., budget year 2021), staff will request that the Board review and potentially amend the General Fund budget for items that have significantly changed and will cause budgetary control parameters to be exceeded.

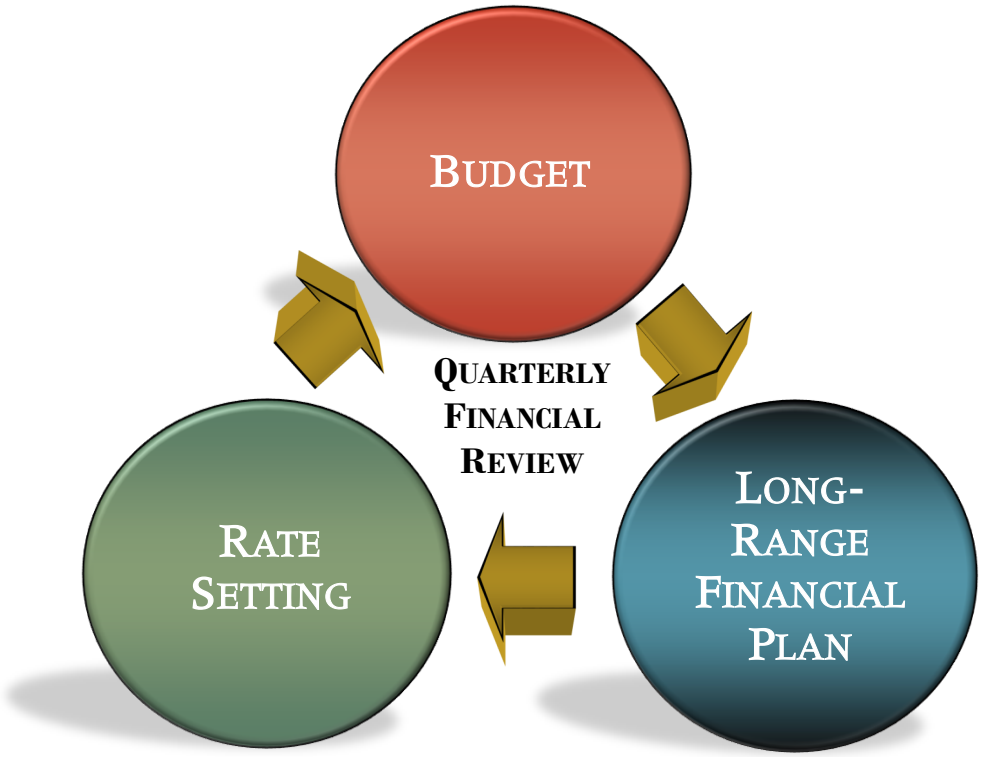
During each budget year, if the GM's budget authority is exceeded, the Board may be asked to either approve additional spending authority or to waive the variance authority on a particular budget line item. Such items do not constitute amendments to the budget, but authorization to exceed the budget. Line item variances that are below $250,000 will not be taken to the Board, even if it causes the GM's 15% line item threshold to be exceeded.

Any unbudgeted work subsequently approved by the Board is to include incremental budget variance authorization if needed. No budget amendments have been recommended since CAP began producing two-year budgets in 2006 / 2007.

Other Planning Processes

Financial Planning & Management Framework

The budget process is more than a self-contained activity. It is part of a dynamic financial planning and management framework. Formulation of the budget and measurement of budget performance are linked to other management processes within CAP, each of which incorporates and refines the information that is made available by the other processes. Strategies and objectives are identified and incorporated into the LRFP, rate-setting process, reserve planning and the budget. Execution and performance are evaluated by means of an authorization process, quarterly financial reviews and the annual operations, maintenance and replacement (OM&R) cost reconciliation to ensure that CAP accomplishes its strategies and objectives.



Long-Range Financial Plan

The LRFP is a 10-year financial forecasting model designed to assist in evaluating the impact of business strategies, external conditions, rate-setting alternatives, debt assumptions and capital programs, and to provide insight into the long-range financial implications of such factors on CAP's operations, reserves and cash flow. As previously stated, it is completed in even years, separate from the budget.

The LRFP incorporates the latest information available from the recently completed budget, annual financial results and economic indices. Major assumptions that are reviewed and revised include water availability and delivery volumes, energy requirements and pricing, staffing and capital programs. The LRFP update process is designed to intersect the rate-setting process.

Rate-Setting Process

Similar to the biennial budget process, CAP has implemented a biennial rate-setting process. A preliminary biennial water rate schedule and analysis is prepared and presented that identifies firm rates for one year (i.e., 2021), provisional rates for the next year (i.e., 2022) and advisory rates for the subsequent four years (i.e., 2023-2026). CAP communicates preliminary firm, provisional and advisory rates through rate briefings, public board meetings and written briefs. The preliminary rates are adopted or revised to be final rates at the June Board meeting. In the second year of the biennial rate-setting process, the provisional rates become firm unless the Board elects to update them. Like the budget update process, the rate update process is only used if needed. The provisional 2020 rates were reviewed and revised in 2019.

Rate-Setting Goals

Cost Recovery	Water rates are set to recover costs, on a long-term basis, net of other revenue sources
Encourage Use	Water rates are set to facilitate the use of CAP water by those who need and are entitled to CAP water, and to further the policy of the State of Arizona to encourage use of renewable water supplies
Financial Stability	Water rates are set to maintain a strong financial position and long-term balanced cash flows
Price Stability & Predictability	Water rates are set to maintain relatively stable and predictable rates
Operational Efficiency	CAP commits to a goal of operating its facilities at the lowest possible cost consistent with maintaining a highly reliable service capability
Accountability	Water delivery policies and rates should be established in a highly public process only after due consideration and analysis of economic and financial impacts
Maximize Economic Benefit	Upon fulfillment of contractual delivery requirements, CAP may deliver the remaining water ("excess water") for the economic benefit of the state
Legal Compliance	Any rate-making processes and policies must be accomplished in accordance with statutory and contractual requirements

Water Delivery Rates

CAP water rates are based on cost of service. Pumping energy and other water delivery expenses are recovered primarily through separate components of the water delivery rates: (1) Fixed Operation, Maintenance and Replacement, and (2) purchased energy. Operating costs that are not recovered through rates are covered by non-operating revenues (ad valorem taxes and interest income).

Rates for each year are calculated in advance based on expected water deliveries and related costs. Actual water deliveries can fluctuate considerably due to weather conditions and the availability of water. If actual deliveries fluctuate from the estimate used to set rates, water delivery revenues and pumping energy costs will also fluctuate, but other water delivery expenses are primarily fixed and will not fluctuate based solely on water delivery volumes. In general, if water deliveries decrease over the estimate used to set rates, the Fixed OM&R rate will increase. It also holds true that if water deliveries increase, the Fixed OM&R rate will decrease.

Some of CAP's water delivery rates, specifically those applicable to long-term subcontract and federal and interstate water banking customers, are reconciled and differences settled annually. These contracts constitute approximately 2/3 of the current deliveries. This reconciliation process is described on page 3-30 as part of the annual OM&R reconciliation discussion.

CAP includes a "Big R" component for capital replacement and capital improvement projects in the Fixed OM&R rate. It is smoothed over time to prevent significant year-to-year fluctuations. It has been called "Big R" to identify it as part of Fixed OM&R and to distinguish it from the capital charge explained below.

Starting in 2012, CAP began including a rate stabilization component in the OM&R rate. This rate allowed the accumulation of approximately $30 million in a rate stabilization reserve by the end of 2019. As indicated above, Fixed OM&R rates are calculated based on delivery volume and in the event of a shortage, rates would increase significantly. Utilization of this reserve would allow the rate impacts of a shortage to be phased in over the period of two to three years, rather than all at once. The rate stabilization fund can also serve as a method to reconcile rates annually. The rate stabilization component collection ended starting with the 2019 rates.

The objective of the rate-setting process is to estimate rates that will be as close as possible to actual costs. The LRFP helps accomplish this objective. Since water delivery rates are set in advance, fluctuations in actual water deliveries may result in ongoing Fixed OM&R reconciliation adjustments to CAP's M&I subcontract and federal contract customers. Shortage mitigation and forbearance programs decrease the water delivery volumes and may cause the Fixed OM&R rate to increase in cases where the Fixed OM&R is not collected.

Capital Charges

Municipal and industrial (M&I) subcontractors are assessed a capital charge on their allocations as specified by their subcontracts. Excess water customers including non-subcontract customers, CAGRD and the Arizona Water Banking Authority (AWBA) are assessed a "facility use fee" which is equivalent to a capital charge on a delivered per acre-foot basis. The capital charge and facility use rate is set to assist in repaying CAP's share of the reimbursable costs for construction of CAP. This charge is combined with other revenue sources, as described in Repayment Obligation on page 3-40, to make up the annual amount due to the federal government.

Evaluation

Authorization Process

Once the Board approves the budget and the new budget year begins, CAP's management is charged with executing the budget's business objectives and financial goals. In order to provide ongoing evaluation of individual commitments and expenditures for compliance with goals and objectives, CAP has established policies and procedures related to staffing unfilled positions, contracts and purchasing and acquisition of property and capitalization. These policies and procedures apply to all commitments and expenditures, budgeted or not.

For example, the contracts and purchasing policy, which establishes management approval authorization limits and competitive bidding processes, currently provides that all items over $250,000 require Board approval. The PSC was established to be responsible for evaluating, recommending and approving specific capital projects and overseeing capital equipment purchases to ensure they are within the Board-approved capital budget. The PSC also oversees extraordinary maintenance projects as they are large projects whose costs are removed from operating expenses and added to "Big R" to smooth out year-to-year fluctuations in Fixed OM&R.

Quarterly Financial Review

On a quarterly basis, the finance staff analyzes and evaluates actual budget performance, financial activity and trends. The results are provided to the Management Council and Board. In addition to evaluating year-to-date operating and capital budget performance, a full-year forecast is developed for revenues, expenses, capital budget expenditures, statement of net position and General Fund strategic reserves. This review enables management to identify potential weaknesses or activities that may have an adverse impact on CAP and determine an appropriate course of action.

Annual OM&R Reconciliation

CAP is party to a number of long-term subcontracts and contracts for water delivery. The subcontracts with long-term customers and the Settlement Stipulation with the federal government require reconciliation of actual OM&R costs to published water delivery rates on an annual basis.

If the analysis indicates that the rate billed to subcontract and contract customers exceeds the actual reconciled water delivery rate, a refund is required to be paid back to the customers. If, however, the analysis indicates that the actual OM&R rate was greater than the published rate, the customers are required to reimburse for amounts underpaid.

Reserve Planning

As part of the two-year financial planning cycle, one of the activities for even years is a review of the Strategic Reserve strategy and targets.

Strategic Reserves are cash reserves for unusual or unplanned events, such as equipment failures, business interruption or unplanned costs. These reserves may be drawn upon if unusual or unplanned events occur, or they may never be used at all. The Working Capital reserve is an exception to this rule, as it is a self-replenishing reserve used to smooth out timing differences in revenues and spending within each year. Known or planned expenditures or events are included in the budget and funded on a "pay as you go" basis through water rates and taxes. Other reserves have been established for specific purposes, such as water storage, rate stabilization and CAGRD that are not included in the Strategic Reserve planning. See Fund Reserves beginning on page 3-41 for a more detailed description.

The Board reviewed and updated the Strategic Reserve targets in April 2018.

CAP Canal near Picacho Peak

Capital Planning

The CAP capital budget is comprised of the Capital Improvement Program (CIP) and capital equipment replacements and additions. Capital projects and equipment included in the capital budget are designed to support CAP's Strategic Plan. CAP is committed to a triple-bottom-line philosophy that incorporates: (1) environmental considerations; (2) social responsibility, including safe and secure workforce conditions; and (3) financial impact that accounts for total costs of ownership. Examples of action plans within the Strategic Plan objectives used in the formation of the capital budget are listed below.

Finance

- Maintain a long-term CIP consistent with CAP's Strategic Asset Management Plan that ensures system reliability, including major equipment replacement and rehabilitation.
- Develop a strategy to maintain stable and predictable rates, including establishing appropriate reserves, a rate-setting methodology and a rate stabilization mechanism to be used during a shortage.

Project Reliability

- Commit to continued environmental improvement in the acquisition of environmentally-friendly vehicles and increasing facilities' energy efficiencies.
- Protect and secure CAP's Information Technology (IT) assets and information.

Power

- Pursue partnership arrangements for maintaining CAP transmission assets to reduce CAP water delivery costs.
- Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative-generation resources.

The six-year capital budget covers the years 2020 through 2025. The Board of Directors is asked to approve capital expenditures for 2020 and 2021. Capital equipment and projects shown after 2021 are for advisory purposes to inform the Board and constituents of potential future capital budget requirements.

Capital Section Includes
A Summary of CIP projects for the budget and advisory years
A summary of capital equipment for the budget and advisory years
A description of each CIP project, its justification, total project cost, funding source, operating impact, and strategic issue and key result area (KRA) that the project will support.

Biennial Budgeting

In the event a new capital project requirement develops in the off-budget year, it can proceed only if the PSC process is followed and is within the Board-approved capital budget limit. The PSC and management may reprioritize existing projects in order to accommodate the new project from a budget and resource perspective. If the new project will exceed the spending authority approved by the Board, then additional Board approval is required.

Capital Equipment

CAP cost centers begin the capital budget process by identifying specific capital equipment needs for the 2020 / 2021 budget. CAP has a capitalization threshold of $25,000, so equipment under that amount is expensed. For equipment that exceeds $100,000, a business justification analysis is performed and a recommendation is provided to the Project Steering Committee (PSC) for inclusion in the budget. For the fleet vehicle budget, a separate analysis is performed to determine if vehicles are being utilized per CAP's fleet vehicle policy and to evaluate the need for additional or replacement vehicles. The guidelines established by this policy address the acquisition, assignment, pooling, replacement and disposal of fleet vehicles.

Capital equipment shown during the post-2021 period are advisory to provide an indication of needs for 2022 through 2025 Specific equipment needs will be refined during 2020 and 2021.

Capital Improvement Program

CAP has established a policy to facilitate cost-effective, consistent and objective project planning, approval, implementation and completion. To facilitate this, the PSC is comprised of a cross-functional management team that has been established to evaluate, prioritize and oversee large projects. The Project Management Office (PMO) in Engineering has been established to manage the execution phase for all engineering projects, regardless of the size and to facilitate communication between project managers and the rest of CAP. Projects related to infrastructure for energy transmission, groundwater recharge and groundwater recovery may be built and managed by other departments. The PSC review and approval process consists of two phases: Concept/Prioritization and Assessment.

Concept/Prioritization

There are two methods to create a concept of a potential project. First, any CAP employee, with approval from their supervisor, may submit an Asset Modification/Project Request to the Strategic Asset Management (SAM) Team for review. Second, the SAM Team may create a concept in the normal course of its annual review of asset conditions. Regardless of how it originated, a concept must include a justification for the work, impact of current-state problems, a proposed solution, impacts of the proposed solution and a cost estimate.

Concepts are placed onto the Risk Register with an initial priority scoring from the Maintenance Managers. The PSC will review the list and:

1. Confirm potential projects on the Risk Register are valid work that is in alignment with Strategic Objectives and Reliability Centered Maintenance principles.
2. Review the scoring and modify ranking to create alignment with overall Strategic Fit and Opportunity Cost & Organizational Impact scoring.
3. Utilize finalized Risk Register scoring as initial priority ranking for consideration of projects to be executive in the next Biennial Budget cycle.

Project Steering Committee Objectives
Ensure that CAP executes the RIGHT projects, which is based on an evaluation of Strategic Fit (risk) and Opportunity Cost & Organizational Impact
Evaluate project execution options and SELECT the most effective solution
Oversee the EXECUTION of large projects, with a focus on compliance with defined budget, schedule and resource utilization targets
Help MANAGE the overall CAP Capital Budget, by making decisions on the execution of projects to help achieve alignment with the approved budget or seeking additional spending authority from the Board of Directors

Assessment

The Project Team will collect information, prepare analysis and draft project documentation for review by the PSC in order for a project to move forward. During the review process, the PSC will evaluate the project need, the proposed project team, any alternatives considered by the Project Team and the Project Team's recommendation.

The PSC will review and ensure that the Project Team considered each of the following:

- √ All known current and future risks, within the area of subject matter expertise / CAP functional area that the PSC member represents, have been included and addressed.
- √ The scope and scope limitations of the project are defined, aligned and agreed upon.
- √ The ideal Project Team has been assembled and the management level project sponsor is well chosen.
- √ The cost of the project alternatives are well defined and appropriate, and includes consideration of the long-term maintenance and operational cost of the alternative.

✓ The schedule addresses known operational, manpower and outage restrictions.
✓ Future horizon, or long term items, that the Project Team may not be initially aware of have been identified and addressed.
✓ Other items that might have significant impact to the project, if not addressed, have been accommodated within the alternatives analysis.

CIP Controls

Once the project has been approved by the PSC, it does not have to return for further review unless the projected cost changes 20% (plus or minus) from the level approved by the PSC or a major flaw is uncovered in the detailed project planning phase. If either of these conditions occur, the project reverts back to the "Assessment Phase" and requires an additional decision by the PSC to proceed.

PSC Membership

Permanent voting members of the PSC include:

- Deputy General Manager (DGM) – Committee Chairperson (or Director of Operations, Power & Engineering, if there is no DGM)
- Director of Field Maintenance
- Director of Finance & Administration
- Director of Technology
- Director of Centralized Maintenance and Reliability
- Director of Operations, Power, and Engineering

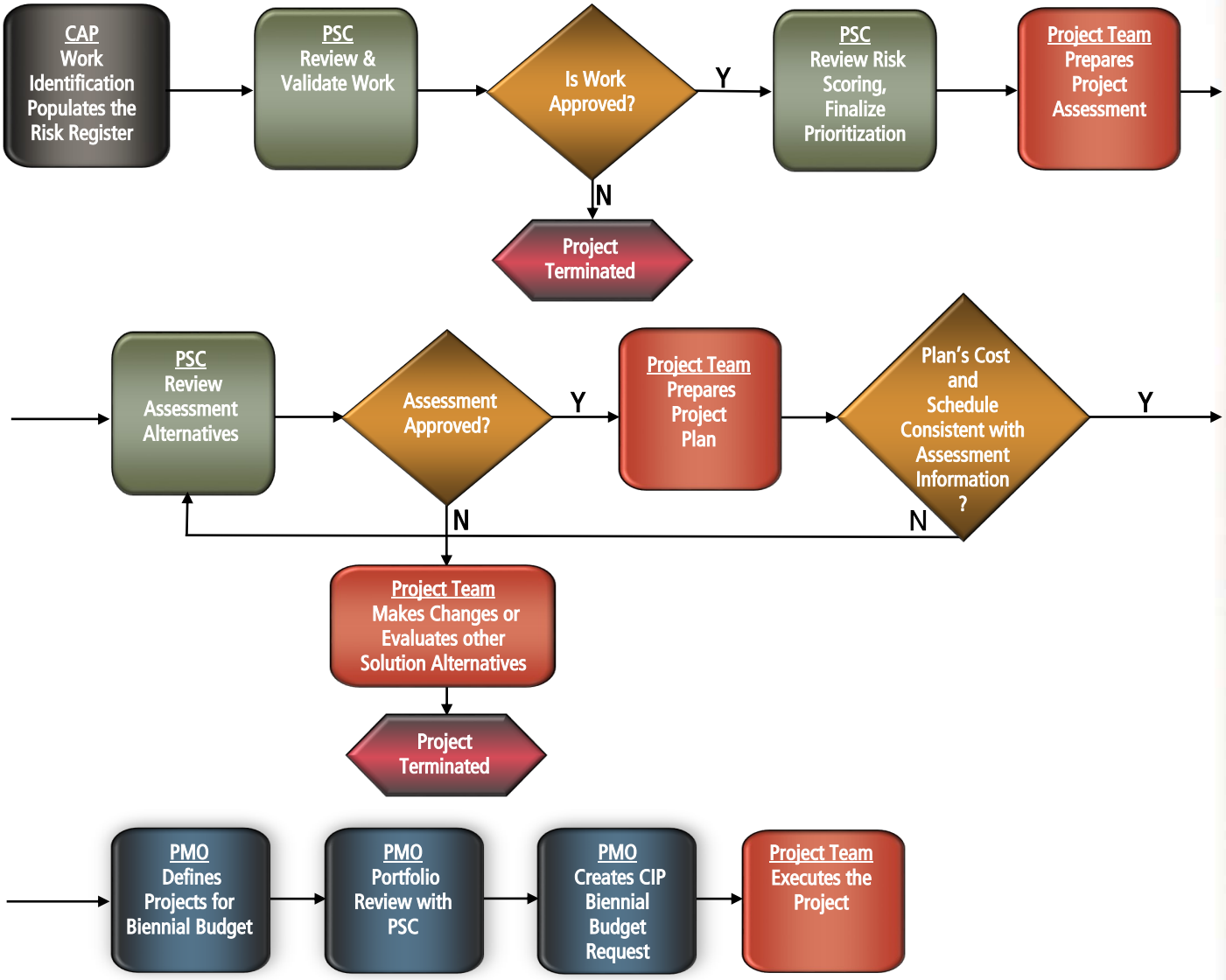
Standing Advisors to the PSC (non-voting) include:

- Manager, Maintenance Control
- Manager, Water Control
- Manager, Finance and Accounting
- Manager, Engineering Services
- Manager, Maintenance West
- Manager, Maintenance South
- Manager, Supply Chain and Facilities
- Manager, Environmental Health and Safety
- Supervisor, Project Management

PSC Process and the Budget

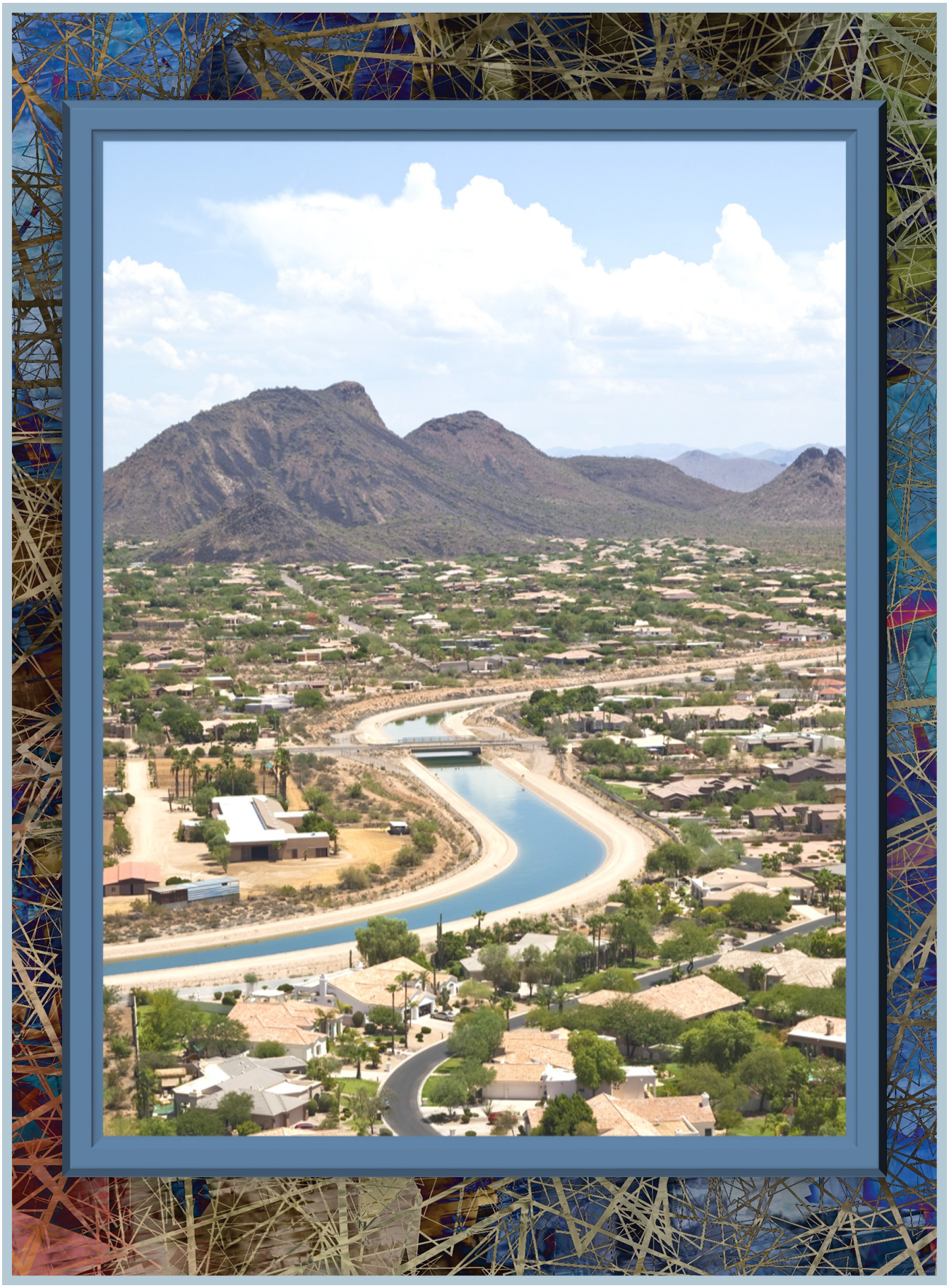
Immediately before the biennial budget process begins — typically in April of odd-numbered years — the PSC reviews the Capital Project Risk Register, confirms prioritized projects, and compiles all approved project plans for ongoing capital and extraordinary-maintenance projects, as well as those plans for projects approved since the previous budget was prepared. As a final step before the new budget's preparation, the PSC reviews overall critical resources such as project managers and construction inspectors and may elect to make necessary adjustments to individual project schedules or modify other planning assumptions, in order to balance resources and reduce risk. Resource-balancing also occurs in a more indirect way, on a continuous basis, during the budget-implementation period through: 1) managing the overall budget, 2) exercising PSC controls on individual projects as described above, 3) changing project schedules that may occur over time, 4) introducing new project requirements and 5) cancelling certain planned projects.

Capital Improvement Program Process



Advisory Projects Post-2021

CIP projects listed as advisory projects in the years after the 2020 /2021 budget period include those projects that may either be in the design or construction phases in those years, as well as projects that may still be in the evaluation phase. Throughout the 2020 / 2021 budget period, projects will be assessed and based on appropriate justification, funding and available staff resources. Advisory projects may be implemented during the current budget by the PSC but still maintained within the capital budget guidelines. Post-2021 projects will be modified based on need as determined by the state of the equipment through condition-based monitoring and other determining factors. Additional projects will be added while others may be deferred as conditions necessitate. Cost projections are based on projects of similar historical experience and will be refined as the project is brought into the current planning timeframe and therefore will vary from the stated amount. Capital expenditures for outer years will likely be higher than current projects indicate as assets are assessed.



CAP Canal near Black Mountain

Debt Authorities & Obligations

Bonding Authority

Provisions of Arizona Revised Statutes (ARS) authorize CAP, its legal name being Central Arizona Water Conservation District, to incur debt and identify a revenue source for the payment of that debt. CAP has authority to incur debt under the ARS listed below.

ARS § 35-451 *et seq.*—General Obligation Bonds

- Provides authority for CAWCD to issue general obligation bonds for any lawful or necessary purpose.
- Legal Restrictions: Does not specify a limit on the amount of bonds that can be issued, only that issuance of bonds requires voter approval. However, taxes to meet debt service requirements are separate from (in addition to) the taxing authority provided in ARS § 48-3751.
- CAWCD has not issued bonds under this statute.

ARS § 48-3713.01—Water Storage Bonds

- Provides: CAWCD may issue revenue bonds for recharge and recovery facilities secured by revenues from recharge contracts to provide monies to acquire, develop, construct, operate and maintain water storage and recovery facilities.
- Legal Restrictions: Aggregate principal amount of such revenue bonds may not exceed $35 million.
- CAWCD has not issued bonds under this statute.

ARS § 48-3751 *et seq.*—Revenue Bonds

- Provides: CAWCD may pledge revenues, including revenues from the sale of services or from contracts and fees from water, toward the payment of bonds. However, CAWCD may NOT pledge taxes or assessments on or against property toward the payment of revenue bonds issued under this article of Title 48. Further, if CAWCD issues revenue bonds to fund CAGRD costs, such bonds are only repayable from revenues generated or collected from members of the CAGRD.
- Legal Restrictions: Aggregate principal amount of bonds issued and outstanding cannot exceed $500 million, excluding bonds issued before September 21, 1991 (no bonds under this exception).
- CAWCD issued $45.6 million in bonds in February 2016 to finance its share of the Palo Verde to Morgan Transmission Line (APS), Hassayampa Tap Connection and Transmission Line Rebuild ED2 to Saguaro projects. A portion of the Fixed OM&R rate is pledged toward repayment of these bonds.
- CAWCD issued $20 million in private placement bonds with BBVA Compass Bank in July 2019 for CAGRD water supply capital projects, which will be repaid through the CAGRD Infrastructure and Water Rights revenues.

Taxing Authority

ARS § 48-3701 *et seq.*—CAWCD's Enabling Legislation

- Provides CAWCD the authority to:
  - Levy an ad valorem tax in the District's service area (Maricopa, Pima and Pinal counties) to pay administrative costs and expenses of the District and to assist in repayment of the CAP system to the United States.

- Legal Restriction: The ad valorem tax levied under this statute cannot exceed $0.10 per $100 assessed valuation and CAWCD may not pledge this tax toward the payment of bonds.
- CAP set the tax at $0.10 per $100 assessed valuation in 2019.

ARS §§ 48-3715.02 & A.R.S. 48-3715.03(A) —Tax Levy for water storage

- Authorizes CAP to levy a water storage tax The rate must be fixed by the third Monday in August each year.
- The statute was revised in 2015 to authorize up to $0.04 per $100 assessed valuation through December 31, 2024 and $0.03 through January 2, 2030.
- Provides that the Board shall determine whether all or any portion of such tax is to be applied to the payment or repayment of CAP construction or annual operations, maintenance and replacement costs. Any taxes levied for water storage that are not applied to the payment or repayment of CAP construction or annual operations, maintenance and replacement are to be deposited with the State Treasurer in the Arizona Water Banking Fund.
- CAP has set the tax at $0.04 per $100 assessed valuation in 2019.

Repayment Obligation

As specified in CAWCD's enabling act (ARS § 48-3701 et seq.), in 1972 CAWCD entered into a Master Repayment Contract with the U.S. Bureau of Reclamation, to repay its allocated share of the reimbursable costs of the CAP system. The 50-year repayment period for each construction stage began upon substantial completion of each stage. The first stage (water supply system) was declared substantially complete on October 1, 1993; CAWCD was then notified on September 30, 1996, that the second stage (regulatory storage facilities) was substantially complete.

Based on the terms of the Master Repayment Contract and the subsequent repayment settlement stipulation, CAWCD is obligated to repay $1.646 billion to the federal government. The balance of the obligation is projected to be $1.01 billion at the end of 2020 and $980 million at the end of 2021.

Funds available to the CAWCD to make the annual repayment obligation, come from funds held by the federal government in the Basin Development Fund (BDF), capital charges and reserves. Funds available in the BDF include power revenues received from the surcharge on energy sold in Arizona from the Hoover Power Plant and the Parker-Davis Project, land surplus for project needs and other miscellaneous revenues. If funds in the BDF are not sufficient to make the annual repayment obligation, the District will make up the difference from General Fund reserves that were collected through capital charges, property taxes and interest earnings. Revenues from the sale of surplus power from the Navajo Generating Station were available for repayment through the end of 2019 when it was decommissioned.

Non-Indian Agricultural 9(d) Debt

During 2007, and as the result of the Arizona Water Settlement Act, long-term entitlements to CAP non-Indian Agricultural (NIA) water were relinquished by CAP NIA subcontractors. These rights are currently recorded as an asset of CAWCD. In exchange for the relinquishment, CAP incurred the 9(d) debt liability from the water rights. Those rights will be reallocated to M&I users, which the first reallocation is anticipated to occur in 2020 for delivery in 2021. Upon reallocation, the District will collect charges from those M&I users, an amount sufficient to repay the District's costs in facilitating the relinquishment of the 9(d) debt. Due to ongoing uncertainty surrounding the reallocation, no revenue or cash impacts have been included in the 2020 / 2021 budget.

Fund Reserves

Reserves by Category

Restricted Reserves

These funds were established through contracts or legislation that limit the use for specific purposes.

Master Repayment Contract Reserves – The Master Repayment Contract established two reserves, the Emergency OM&R Reserve Fund and the Repayment Reserve Fund. The Emergency OM&R Reserve Fund was established to fund extraordinary costs of OM&R project work. The Repayment Reserve Fund was established to help assure payments to the United States under the Master Repayment Contract. As part of the Settlement Stipulation, CAWCD is allowed to use these reserves for unforeseen and extraordinary O&M costs, unusual or extraordinary repair or replacement costs and betterment costs.

Major Repair / Replacement Reserve – This fund was established in 2007 pursuant to the Settlement Stipulation, to cover the costs associated with major repair or replacement of CAP features. Cash received from the additional rate component (ARC) that was not needed to pay outstanding revenue bonds (also referred to as the capacity charge) was deposited into this fund and is to be used for the purpose specified.

Supplemental Water Reserve – This fund was established pursuant to legislation to acquire or conserve water to supplement CAP M&I water supplies. Investment income continues to accrue on this fund.

CAGRD Replenishment Reserves – This fund consists of three accounts, one for each Active Management Area (AMA). Funds are to establish and maintain a replenishment reserve of long-term storage credits for each AMA.

CAGRD Water Rights & Infrastructure Reserves – This fund is comprised of activation fees and membership dues to support the CAGRD water acquisition program.

Captive Insurance Reserves – Established in 2003, this fund provides a self-insurance mechanism for property, casualty and medical insurance to fund claims.

Bond Reserves – these reserves are held by the Bond Trustee, Zions Bank, for the 2016 CAWCD bonds and by BBVA Bank for the 2019 CAGRD bonds to be utilized explicitly for bond debt service payments and remaining bond proceeds.

Committed Reserves

The following reserves have been committed to specific purposes as indicated below:

Extraordinary Cost Reserve – Established in 2013, this fund was committed to address unpredictable cost concerns due to the uncertainty of energy needs and the energy market. All proceeds through the 2018 / 2019 tax collections were subsequently dedicated toward decommissioning costs associated with NGS. In June 2019, the Board $0.025 to be deposited in the reserve for shortage mitigation or other purposes as the Board deems appropriate. The Board will ultimately direct the purposes for which these funds may be used.

Water Storage Reserves – This fund was established in 2003 for the purpose of funding water delivery expenses incurred for underground storage. Monies deposited into this fund are collected from a water storage ad valorem tax assessed from Maricopa, Pinal and Pima counties.

Rate Stabilization/Sulfur Dioxide (SO_2) Credit Reserves – Established in 2005, the SO_2 Credit Reserve is used to stabilize the total OM&R rate. This fund was supplemented by a new rate stabilization fund in 2012 that is funded from rates, not SO_2 credits. The Rate Stabilization Reserve was created to provide funds to mitigate rate shock due to potential Colorado River shortages and allow them to be "softened" or phased out over a longer period of time.

Voluntary Rate Stabilization Reserve – Established in 2015, this reserve was created to provide additional funds to mitigate rate impacts due to potential Colorado River shortages and allow them to be "softened" or phased out over a longer period of time. Participation in this fund was voluntary and only certain customers elected to participate in this program using 2014 rate reconciliation refunds that otherwise would have been reimbursed to them. In the event a shortage is not declared by the end of 2020, the contributed amounts along with interest will be refunded to those that participated in the program.

Navajo Decommissioning Reserves – Established in 2005, this fund is being utilized to pay CAP's share of costs associated with the decommissioning of NGS. All funds dedicated to decommissioning from the Extraordinary reserves will be transferred in to this account in October 2019.

CAGRD Reserves – These reserves include accounts for water rights and infrastructure (excluding activation fees and membership dues), water obligations for each AMA and an administration account.

Assigned Reserves

The Board established several funds to provide strategic reserves (see following section) in the event of catastrophic event. These reserves are described below:

Capital Reserve – Established in 1990 for the purpose of funding capital projects and providing funds for significant capital repair or replacement.

Operating Reserve – Established in 1990 for the purpose of funding operating needs.

Contingency Reserve – This fund is set aside to act as a reserve for extraordinary legal, medical or property and liability damages. The fund is to be available to respond to any claims, judgments and related costs against CAP, its officers, directors and employees, if any, in excess of the outstanding insurance coverage.

Unassigned Reserves

Monies held by this fund are considered General Funds of CAP. They are utilized for daily needs and are referred to as working capital. They are part of strategic reserves.

Strategic Reserves

Strategic Reserves are cash reserves for unusual or unplanned events, such as equipment failures, business interruption or unplanned costs. They are made up of a subset of reserves listed above. These reserves may be drawn upon if unusual or unplanned events occur, or they may never be used at all. The Working Capital Reserve is an exception to this rule, as is used to smooth out timing differences in revenues and spending within each year. Ideally, with the exception of the Working Capital Reserve, Strategic Reserves accounts would never have to be used.

Each reserve target is based on its own unique basis as appropriate for that reserve. The targets are analyzed based on a consistent methodology, which is important from a financial management perspective. The methodology is based on best practices of the Government Finance Officers Association (GFOA).

In April 2018, the Board revised its strategic reserve targets to $179 million as part of its biennial review process. The targets are established through consistent analytical processes and financial best practices. Strategic reserves are projected to be above target by the end of 2019 and through the budget period.

Strategic Reserve Targets *(Millions)*	
Assigned Reserves:	
Capital Reserve	$ 61
Operating Reserve	$ 75
Contingency Reserve	$ 8
Unassigned Reserves:	
Working Capital Reserve	$ 35
Total	$179

Fund Reserves

Unassigned / Unrestricted	Assigned	Restricted	Committed
Working Capital Reserve	Operating Reserve		
	Contingency Reserve		
These two reserves are managed together	Capital Reserve	Major Repair/Replacement Reserve	

Repayment Reserve	Water Storage Reserves
Emergency O&M Reserve	Extraordinary Cost Reserve
Supplemental Water Reserve	Recovery Reserves
Bond Reserves	Rate Stabilization / SO_2 Reserves
Captive Insurance Reserves	Navajo Decommissioning Reserve
CAGRD Replenishment Reserves	CAGRD Reserves
CAGRD I&WR Reserves	

= Strategic Reserves

= Other Reserves

Unassigned Reserves	Assigned Reserves	Restricted Reserves	Committed Reserves
Funds at the State Treasurer and Bank of America which are for daily operating purposes.	The Board established these reserves to provide for potential future needs.	These funds are established through contracts or legislation that limit the use for specific purposes.	These funds are established through Board action typically by resolution that identifies reserves to be used for specific purposes. None of these reserves are part of strategic reserves.

Combined Financial Statements

Central Arizona Water Conservation District accounts for its financial activities in conformance with Generally Accepted Accounting Principles (GAAP) as applicable to a government "enterprise fund." Activity is accounted for using the accrual method and incorporates the requirements of Government Accounting Standards Board (GASB) Statement No. 34. Because the District's activities are primarily business-like in nature, enterprise fund accounting treatment applies.

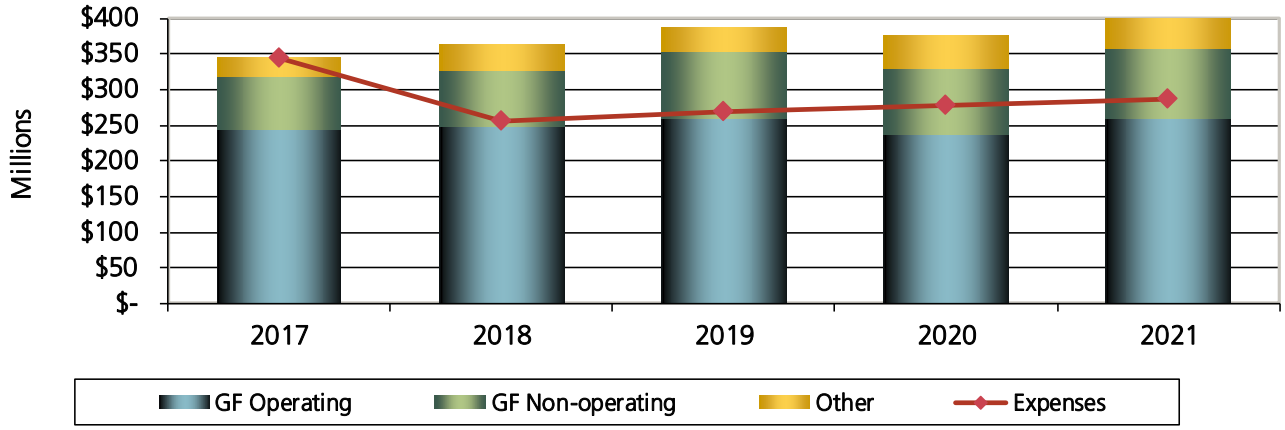
The District is a special-purpose government, as opposed to a general government, such as a city or town. Under GASB Statement No. 14, *The Financial Entity*, and GASB Statement No. 39, *Determining Whether Certain Organizations are Component Units*, CAWCD is a primary government with a single-blended component unit, the CAWCD Insurance Company, Inc. (Captive). However, the District has identified a number of financial activities that it wishes to track separately, referred to as funds and accounts. The District is not required to have a legally adopted budget and, therefore, these funds are not subject to appropriation. Both the budget and financial statements include all funds and accounts.

As fixed operations and maintenance expenses are fairly consistent from year-to-year, CAWCD does not provide advisory year projections beyond the budget for operating expenses. Variability in operating expenses are primarily driven by (1) pumping energy purchases and (2) extraordinary maintenance projects. Pumping energy is dependent on the energy market and projections beyond 2 years are speculative. Only a small portion of CAWCD's energy needs are covered by contracts that cover up to 5 years. While CAWCD provides advisory rates in outer years, they are caveated that they may vary based on energy market volatility. Extraordinary maintenance projects are excluded from operations from a rate perspective and treated as part of capital expenditures in the "Big R" rate. Longer term operational costs are addressed in the Long Range Financial Plan (LRFP) process, which is outside of the budget process in even years.

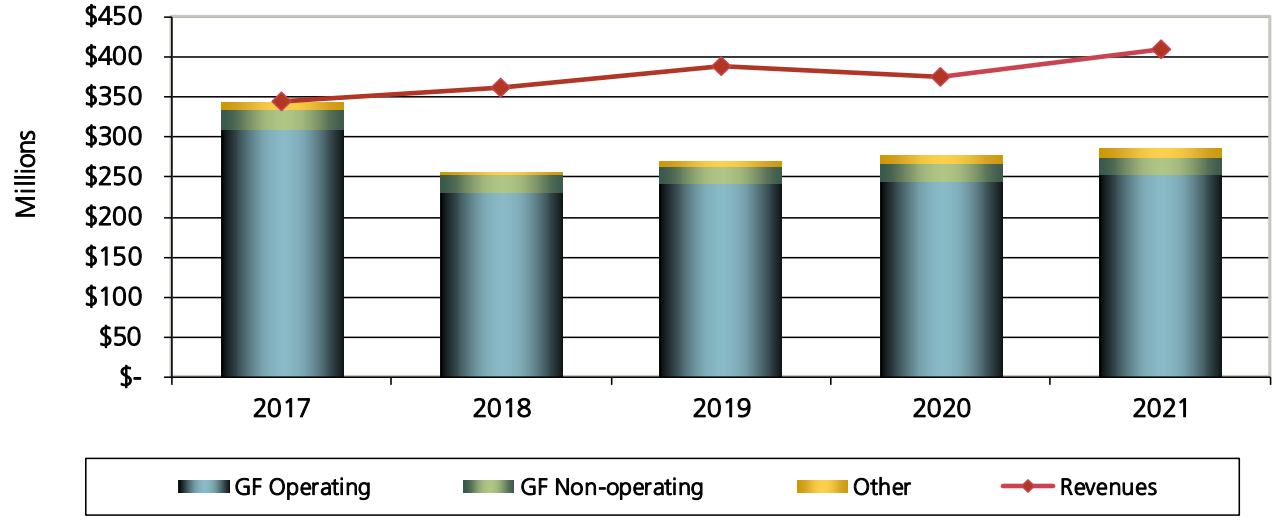
FUND	DESCRIPTION
General Fund	Represents CAWCD's core business, the delivery of Colorado River water to central Arizona through the Central Arizona Project (CAP) and repayment of reimbursable construction costs and is, by an order of magnitude, the largest fund within the District.
Central Arizona Groundwater Replenishment District Account (CAGRD)	Represents the activities of the CAGRD as authorized by Arizona Revised Statutes (ARS) § 48-3771 et. seq.
Supplemental Water Account	Represents the activities related to a trust fund established by Section 7 of Public Law 98-530 and ARS § 45-3715.01 to acquire or conserve water to supplement Colorado River supplies.
Captive Insurance Fund	Represents the activities related to the CAWCD Captive Insurance Company, Inc., to provide a self-insurance mechanism for health, property and casualty insurance.

Summary of Revenues, Expenses & Changes in Net Position—Combined

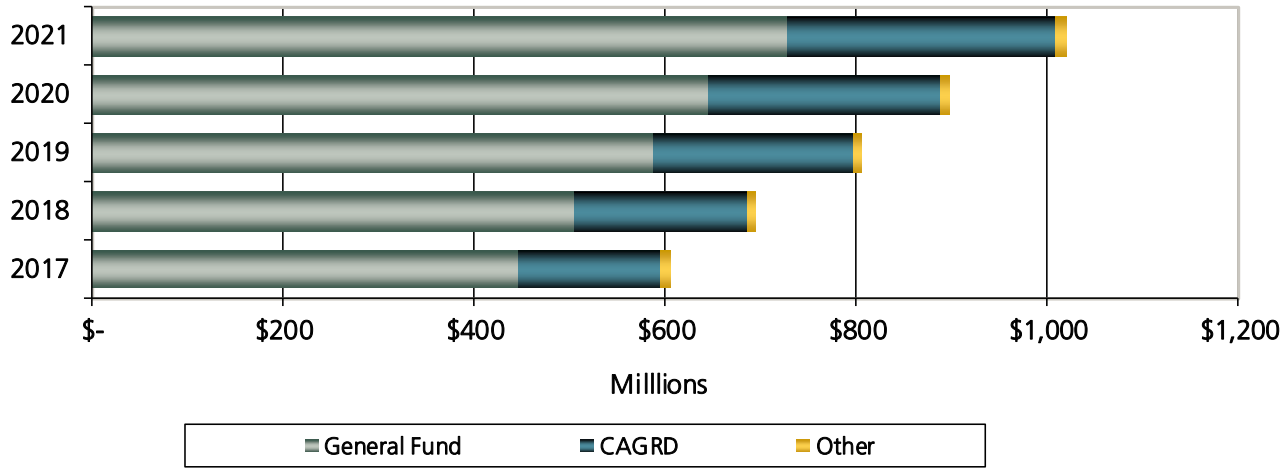
Revenues Compared to Expenses



Expenses Compared to Revenues



Net Position



Statements of Revenues, Expenses & Changes in Net Position
All Funds
(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Operating Revenues					
Water operations & maintenance charges	$ 182,814	$ 182,270	$ 175,019	**$ 184,805**	**$ 201,015**
Water service capital charges	19,652	30,300	25,334	**35,292**	**41,645**
Power and Basin Development Fund revenues	30,261	27,819	43,774	**8,993**	**7,798**
Reimbursements and other operating revenues	36,414	40,227	46,368	**52,826**	**60,717**
Total Operating Revenues	269,141	280,616	290,495	**281,916**	**311,175**
Operating Expenses					
Salaries and related costs	(61,053)	(61,053)	(66,102)	**(67,892)**	**(70,952)**
Pumping Energy and Capacity Charges	(90,558)	(81,807)	(75,663)	**(77,445)**	**(81,989)**
Transmission	(9,576)	(12,596)	(14,789)	**(13,703)**	**(13,366)**
Amortization of permanent service right	(23,162)	(23,162)	(23,162)	**(23,001)**	**(23,001)**
Depreciation	(21,016)	(23,186)	(25,114)	**(26,770)**	**(28,077)**
Other operating expenses					
Outside services	(19,700)	(19,041)	(25,139)	**(24,755)**	**(25,681)**
Materials and supplies	(6,932)	(8,340)	(8,016)	**(8,930)**	**(8,361)**
Water for recharge	(7,314)	3,889	(3,182)	**(7,767)**	**(10,611)**
Other expenses	(78,972)	(6,744)	(5,892)	**(4,767)**	**(4,240)**
Subtotal	(112,918)	(30,236)	(42,229)	**(46,219)**	**(48,893)**
Total Operating Expenses	(318,283)	(232,040)	(247,059)	**(255,030)**	**(266,278)**
Operating Income/(Loss)	(49,142)	48,576	43,436	**26,886**	**44,897**
Non-operating Revenues/(Expenses)					
Property taxes	68,760	72,007	77,690	**81,917**	**86,483**
Interest income & other non-operating revenues	6,512	9,111	19,868	**11,871**	**12,445**
Disbursements to AWBA	(17,889)	(2,738)	(6,933)	**(6,513)**	**(540)**
Interest expense & other non-operating expenses	(25,029)	(23,500)	(22,618)	**(21,798)**	**(20,586)**
Non-operating Income/(Loss)	32,354	54,880	68,007	**65,477**	**77,802**
Change in Net Position	(16,788)	103,456	111,443	**92,363**	**122,699**
Cumulative-effect of change in accounting principles	-	(14,471)	-	**-**	**-**
Net Position at beginning of year	621,790	605,002	693,987	**805,430**	**897,793**
Net Position at end of year	$ 605,002	$ 693,987	$ 805,430	**$ 897,793**	**$ 1,020,492**

Combining Schedule of Revenues, Expenses & Changes in Net Position By Fund & Account

(Thousands)

	2020 Budget	Elim	General Fund	Supp Water Account	CAGRD Account	Captive Insurance Fund
Operating Revenues						
Water operations & maintenance charges	$ 184,805	$ (5,938)	$ 190,743	$ -	$ -	$ -
Water service capital charges	35,292	(448)	35,740	-	-	-
Power & basin development fund revenues	8,993	-	8,993	-	-	-
Reimbursements & other revenues	52,826	(10,124)	2,090	-	50,745	10,115
Total Operating Revenues	281,916	(16,510)	237,566	-	50,745	10,115
Operating Expenses						
Salaries and related costs	(67,892)	-	(66,676)	-	(1,216)	-
Pumping Energy and Capacity charges	(77,445)	-	(77,445)	-	-	-
Transmission	(13,703)	-	(13,703)	-	-	-
Amortization of permanent service right	(23,001)	-	(23,001)	-	-	-
Depreciation	(26,770)	-	(26,709)	-	(61)	-
Other operating expenses	-	-	-	-	-	-
Outside services	(24,755)	-	(24,101)	-	(402)	(252)
Materials and supplies	(8,930)	-	(8,930)	-	-	-
Overhead	4,465	-	5,731	-	(1,266)	-
Water for recharge	(7,767)	6,395	-	-	(14,162)	-
Other expenses	(9,232)	10,115	(10,147)	-	(41)	(9,159)
Subtotal	(46,219)	16,510	(37,447)	-	(15,871)	(9,411)
Total Operating Expenses	(255,030)	16,510	(244,981)	-	(17,148)	(9,411)
Operating Income/(Loss)	26,886	-	(7,415)	-	33,597	704
Non-operating Revenues/(Expenses)						
Property taxes	81,917	-	81,917	-	-	-
Interest income & other non-operating revenues	11,871	-	11,022	234	606	9
Disbursements to AWBA	(6,513)		(6,513)	-	-	-
Interest expense & other non-operating expenses	(21,798)	-	(21,345)	-	(453)	-
Non-operating Income/(Loss)	(28,311)	-	(27,858)	-	(453)	-
Total Non-operating Revenues/(Expenses)	65,477		65,081	234	153	9
Change in Net Position	92,363	-	57,666	234	33,750	713
Net Position at beginning of year	805,430	(2,350)	587,656	8,899	209,060	2,165
Net Position at end of year	$ 897,793	$ (2,350)	$ 645,322	$ 9,133	$ 242,810	$ 2,878

Combining Schedule of Revenues, Expenses & Changes in Net Position By Fund & Account

(Thousands)

	2021 Budget	Elim	General Fund	Supp Water Account	CAGRD Account	Captive Insurance Fund
Operating Revenues						
Water operations & maintenance charges	$ 201,015	$ (6,181)	$ 207,196	$ -	$ -	$ -
Water service capital charges	41,645	(528)	42,173	-	-	-
Power & basin development fund revenues	7,798	-	7,798	-	-	-
Reimbursements & other revenues	60,717	(10,742)	2,014	-	58,712	10,733
Total Operating Revenues	311,175	(17,451)	259,181	-	58,712	10,733
Operating Expenses						
Salaries and related costs	(70,952)	-	(69,700)	-	(1,252)	-
Pumping Energy and Capacity charges	(81,989)	-	(81,989)	-	-	-
Transmission	(13,366)	-	(13,366)	-	-	-
Amortization of permanent service right	(23,001)	-	(23,001)	-	-	-
Depreciation	(28,077)	-	(28,016)	-	(61)	-
Other operating expenses	-	-	-	-	-	-
Outside services	(25,681)	-	(24,974)	-	(450)	(257)
Materials and supplies	(8,361)	-	(8,361)	-	-	-
Overhead	3,943	-	5,247	-	(1,304)	-
Water for recharge	(10,611)	6,718	-	-	(17,329)	-
Other expenses	(8,183)	10,733	(9,757)	-	(31)	(9,128)
Subtotal	(48,893)	17,451	(37,845)	-	(19,114)	(9,385)
Total Operating Expenses	(266,278)	17,451	(253,917)	-	(20,427)	(9,385)
Operating Income/(Loss)	44,897	-	5,264	-	38,285	1,348
Non-operating Revenues/(Expenses)						
Property taxes	86,483	-	86,483	-	-	-
Interest income & other non-operating revenues	12,445	-	11,564	240	632	9
Disbursements to AWBA	(540)		(540)	-	-	-
Interest expense & other non-operating expenses	(20,586)	-	(20,219)	-	(367)	-
Non-operating Income/(Loss)	(21,126)	-	(20,759)	-	(367)	-
Total Non-operating Revenues/(Expenses)	77,802		77,288	240	265	9
Change in Net Position	122,699	-	82,552	240	38,550	1,357
Net Position at beginning of year	897,793	(2,350)	645,322	9,133	242,810	2,878
Net Position at end of year	$ 1,020,492	$ (2,350)	$ 727,874	$ 9,373	$ 281,360	$ 4,235


CAP
CENTRAL ARIZONA PROJECT

STATEMENTS OF NET POSITION - COMBINED

(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
ASSETS					
Current Assets					
Cash and cash equivalents	$ 73,223	$ 99,952	$ 121,380	$ 129,146	$ 156,556
Receivables	47,154	47,884	51,166	54,348	58,930
Water inventory	104,324	100,827	201,637	213,001	217,697
Other	8,903	13,801	2,497	2,410	2,410
Total Current Assets	233,604	262,464	376,680	398,905	435,593
Non-current Assets					
Funds held by the federal government	30,432	29,958	44,498	9,283	8,118
Investments	354,906	391,728	326,083	370,884	410,909
Restricted assets	88,301	72,883	82,515	106,121	120,883
Capital assets					
Operating assets, less accum depr	285,373	296,894	298,966	316,952	322,749
Permanent service right, less accum amort	1,112,159	1,088,998	1,065,835	1,042,834	1,019,833
Agriculture water allocation	88,719	88,719	88,719	88,719	88,719
Total Non-current Assets	1,959,890	1,969,180	1,906,616	1,934,793	1,971,211
Total Assets	2,193,494	2,231,644	2,283,296	2,333,698	2,406,804
DEFERRED OUTFLOWS OF RESOURCES					
Pension Valuation	6,771	11,105	11,106	11,106	11,106
Total Deferred Outflows of Resources	6,771	11,105	11,106	11,106	11,106
Total Assets and Deferred Outflows of Resources	$ 2,200,265	$ 2,242,749	$ 2,294,402	$ 2,344,804	$ 2,417,910
LIABILITIES					
Current Liabilities					
Accounts payable	$ 30,356	$ 36,260	$ 28,256	$ 22,557	$ 27,291
Accrued payroll, payroll taxes & other accrued exp.	7,755	7,466	8,277	8,244	8,705
Unearned revenue	29,500	29,595	32,511	36,392	41,639
Accrued interest payable	24,402	23,292	21,182	21,276	20,135
Repayment obligation, due within one year	32,929	32,929	32,929	32,929	40,456
Contract revenue bonds, due within one year	1,505	1,565	3,165	5,245	5,365
Total Current Liabilities	126,447	131,107	126,320	126,643	143,591
Non-current Liabilities					
Repayment obligation, due after one year	1,076,780	1,043,851	1,010,922	977,992	937,536
Contract revenue bonds, due after one year	49,782	47,396	63,473	57,532	51,484
Non-Indian agriculture 9(d) debt	88,719	88,719	88,719	88,719	88,719
Other non-current liabilities	218,620	189,599	142,095	129,253	115,316
Total Non-current Liabilities	1,433,901	1,369,565	1,305,209	1,253,496	1,193,055
Total Liabilities	1,560,348	1,500,672	1,431,529	1,380,139	1,336,646
DEFERRED INFLOWS OF RESOURCES					
Customer deposits	29,932	31,032	40,385	49,814	43,714
Pension Valuation	4,983	17,058	17,058	17,058	17,058
Total Deferred Inflows of Resources	34,915	48,090	57,443	66,872	60,772
NET POSITION					
Net investment in capital assets.	248,004	260,152	272,312	302,568	320,701
Restricted	84,571	100,471	61,333	85,071	100,931
Unrestricted	272,427	333,364	471,785	510,154	598,860
Total Net Position	605,002	693,987	805,430	897,793	1,020,492
Total Liabilities, Def Inflows & Net Position	$ 2,200,265	$ 2,242,749	$ 2,294,402	$ 2,344,804	$ 2,417,910

Combining Schedule of Net Position - By Fund & Account

(Thousands)

	2020 Budget	Elim	General Fund	Supp Water Account	CAGRD Account	Captive Insurance Fund
ASSETS						
Current Assets						
Cash and cash equivalents	$ 129,146	$ -	$ 105,547	$ -	$ 19,963	$ 3,636
Receivables	54,348	(130)	40,744	-	13,734	-
Water inventory	213,001	-	25,824	-	187,177	-
Other	2,410	-	2,400	-	-	10
Total Current Assets	398,905	(130)	174,515	-	220,874	3,646
Non-current Assets						
Funds held by the federal government	9,283	-	9,283	-	-	-
Investments	370,884	(2,350)	361,900	-	11,334	-
Restricted assets	106,121	-	69,040	9,133	25,698	2,250
Capital assets	314,952	-	305,084	-	9,868	-
Operating assets, less accum depr	2,000	-	2,000	-	-	-
Permanent service right, less accum amort	1,042,834	-	1,042,834	-	-	-
Agriculture water allocation	88,719		88,719	-	-	-
Total Non-current Assets	1,934,793	(2,350)	1,878,860	9,133	46,900	2,250
Total Assets	2,333,698	(2,480)	2,053,375	9,133	267,774	5,896
DEFERRED OUTFLOWS OF RESOURCES						
Pension valuation	11,106	-	11,106	-	-	-
Total Deferred Outflows of Resources	11,106	-	11,106	-	-	-
Total Assets and Deferred Outflows of Resources	$ 2,344,804	$ (2,480)	$ 2,064,481	$ 9,133	$ 267,774	$ 5,896
LIABILITIES						
Current Liabilities						
Accounts payable	$ 22,557	$ (130)	$ 13,411	$ -	$ 6,258	$ 3,018
Accrued payroll, payroll taxes & other	8,244	-	8,244	-	-	-
Unearned revenue	36,392	-	36,392	-	-	-
Accrued interest payable	21,276	-	21,050	-	226	-
Repayment obligation, due within one yr	32,929	-	32,929	-	-	-
Contract revenue bonds, due within one yr	5,245	-	1,725	-	3,520	-
Total Current Liabilities	126,643	(130)	113,751	-	10,004	3,018
Non-current Liabilities						
Repayment obligation, due after one year	977,992	-	977,992	-	-	-
Contact revenue bonds, due after one year	57,532		42,572	-	14,960	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Other liabilities	129,253	-	129,253	-	-	-
Total Non-current Liabilities	1,253,496	-	1,238,536	-	14,960	-
Total Liabilities	1,380,139	(130)	1,352,287	-	24,964	3,018
DEFERRED INFLOWS OF RESOURCES						
Customer deposits	49,814	-	49,814	-	-	-
Pension Valuation	17,058	-	17,058	-	-	-
Total Deferred Inflows of Resources	66,872	-	66,872	-	-	-
NET POSITION						
Net Investment in capital assets,	302,568	-	292,700	-	9,868	-
Restricted	85,071	-	47,990	9,133	25,698	2,250
Unrestricted	510,154	(2,350)	304,632	-	207,244	628
Total Net Position	897,793	(2,350)	645,322	9,133	242,810	2,878
Total Liabilities, Def Inflows & Net Position	$ 2,344,804	$ (2,480)	$ 2,064,481	$ 9,133	$ 267,774	$ 5,896

Combining Schedule of Net Position - By Fund & Account

(Thousands)

	2021 Budget	Elim	General Fund	Supp Water Account	CAGRD Account	Captive Insurance Fund
ASSETS:						
Current Assets:						
Cash and cash equivalents	$ 156,556	$ -	$ 113,679	$ -	$ 37,562	$ 5,315
Receivables	58,930	(130)	44,506	-	14,554	-
Water inventory	217,697	-	23,726	-	193,971	-
Other	2,410	-	2,400	-	-	10
Total Current Assets	435,593	(130)	184,311	-	246,087	5,325
Non-current Assets:						
Funds held by the federal government	8,118	-	8,118	-	-	-
Investments	410,909	(2,350)	401,710	-	11,549	-
Restricted assets	120,883	-	69,227	9,373	40,033	2,250
Capital assets	320,749	-	310,881	-	9,868	-
Operating assets, less accum depr	2,000	-	2,000	-	-	-
Permanent service right, less accum amort	1,019,833	-	1,019,833	-	-	-
Agriculture water allocation	88,719	-	88,719	-	-	-
Total Non-current Assets	1,971,211	(2,350)	1,900,488	9,373	61,450	2,250
Total Assets	$ 2,406,804	(2,480)	2,084,799	9,373	307,537	7,575
Deferred Outflows						
Pension valuation	11,106	-	11,106	-	-	-
Total Deferred Outflows	11,106	-	11,106	-	-	-
Total Assets and Deferred Outflows	$ 2,417,910	$ (2,480)	$ 2,095,905	$ 9,373	$ 307,537	$ 7,575
LIABILITIES:						
Current Liabilities:						
Accounts payable	$ 27,291	$ (130)	$ 13,047	$ -	$ 11,034	$ 3,340
Accrued payroll, payroll taxes & other	8,705	-	8,705	-	-	-
Unearned revenue	41,639	-	41,639	-	-	-
Accrued interest payable	20,135	-	19,952	-	183	-
Repayment obligation, due within one yr	40,456	-	40,456	-	-	-
Contract revenue bonds, due within one yr	5,365	-	1,760	-	3,605	-
Total Current Liabilities	143,591	(130)	125,559	-	14,822	3,340
Non-current Liabilities:						
Repayment obligation, due after one year	937,536	-	937,536	-	-	-
Contact revenue bonds, due after one year	51,484		40,129	-	11,355	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Other liabilities	115,316	-	115,316	-	-	-
Total Non-current Liabilities	1,193,055	-	1,181,700	-	11,355	-
Total Liabilities	1,336,646	(130)	1,307,259	-	26,177	3,340
DEFERRED INFLOWS:						
Customer deposits	43,714	-	43,714	-	-	-
Pension Valuation	17,058	-	17,058	-	-	-
Total Deferred Inflows	60,772	-	60,772	-	-	-
NET POSITION:						
Net Investment in capital assets,	320,701	-	310,833	-	9,868	-
Restricted	100,931	-	49,275	9,373	40,033	2,250
Unrestricted	598,860	(2,350)	367,766	-	231,459	1,985
Total Net Position	1,020,492	(2,350)	727,874	9,373	281,360	4,235
Total Liabilities, Def Inflows & Net Position	$ 2,417,910	$ (2,480)	$ 2,095,905	$ 9,373	$ 307,537	$ 7,575

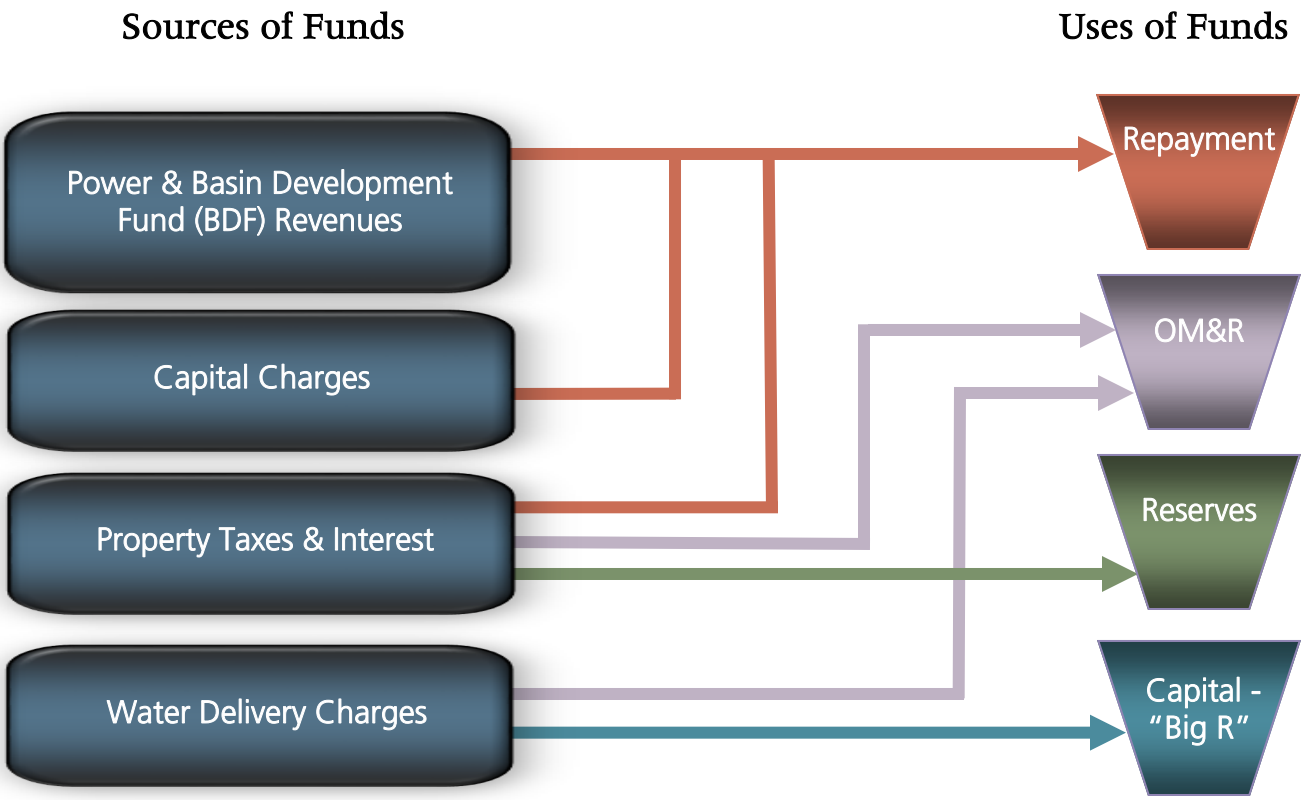

CAP
CENTRAL ARIZONA PROJECT

General Fund

The General Fund has the largest share of CAWCD's financial activities. The combined financial statement presentation consolidates the General Fund revenues and expenses into operating and non-operating categories. For management reporting purposes, the General Fund is further separated to provide visibility to extraordinary maintenance and operating projects and to underground storage project (recharge) operations and maintenance (O&M) activity.

The District has several sources of revenue used to fund expenses for certain activities. As shown on the following diagram, Power and Basin Development Fund (BDF) revenues and capital charges, along with property taxes and interest income, provide the funds to meet the District's annual federal debt service. Water delivery charges, reimbursements, other revenues and, to the extent needed, property taxes and interest income, pay for costs associated with delivering water (Fixed Operations, Maintenance and Replacement (OM&R) and pumping energy), recharge O&M and capital expenditures. Any excess property taxes or interest goes into reserves. Reserves also address inter-year capital ("Big R") spending variances or any shortfall that is not covered from the available sources.

General Fund
Sources and Uses of Funds



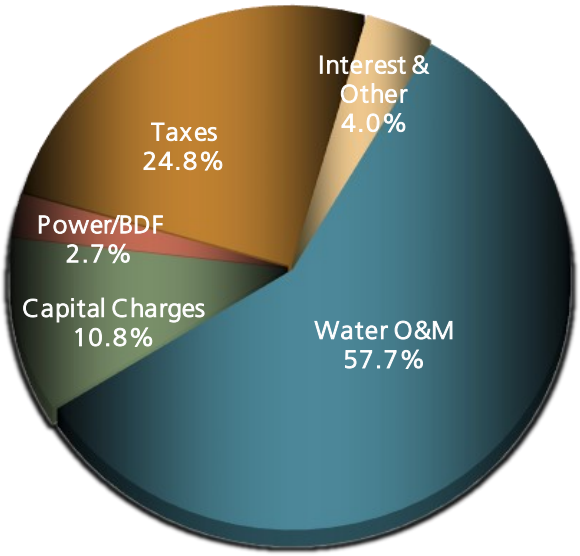
Excludes recharge O&M and excludes miscellaneous revenues/expenses

Revenues

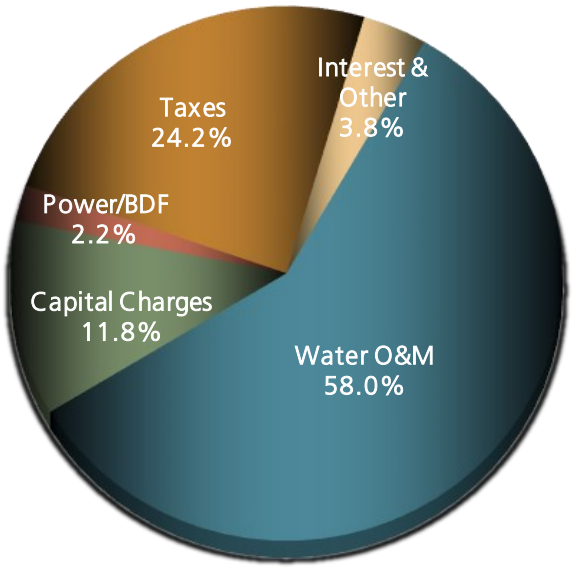
Revenues consist of water O&M revenue, capital charges, BDF revenues, property taxes, interest income, reimbursements and other revenues.

Water O&M charges are the General Fund's most significant revenue source, accounting for total revenue of approximately 57% for 2020 and 58% for 2021. Property taxes (which includes both the general ad valorem tax and the water storage tax) represent the second largest category, followed by capital charges, interest income and other revenue, and BDF revenues.

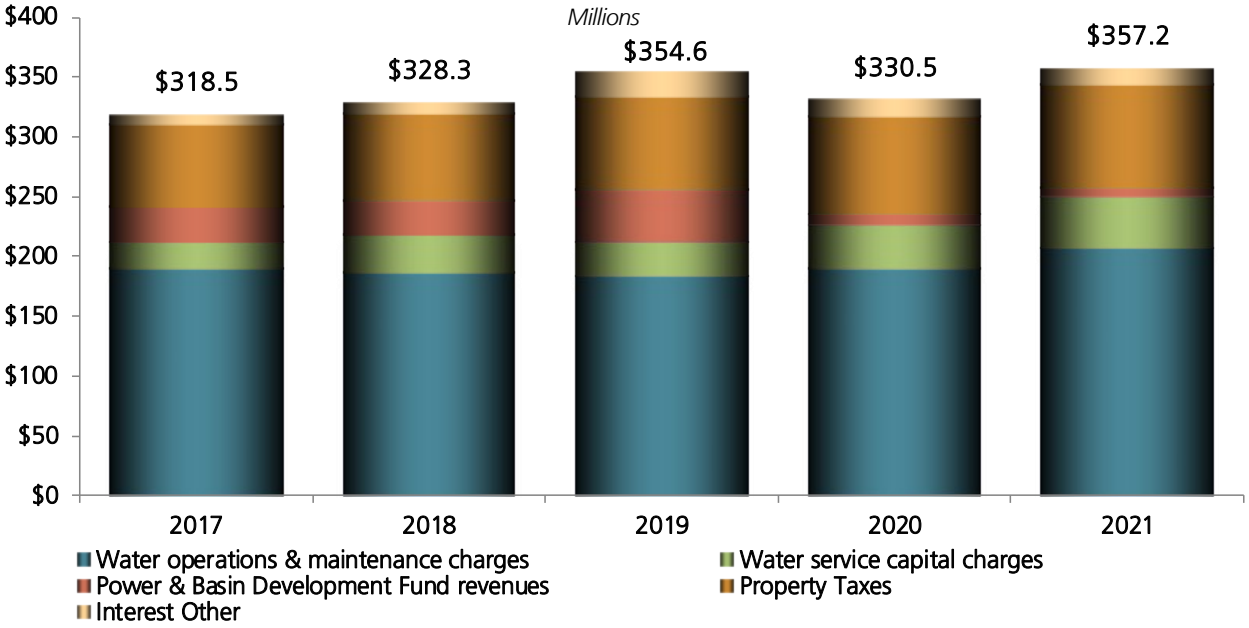
General Fund -2020 Revenues
($330.5 Million)



General Fund -2021 Revenues
($357.2 Million)



General Fund Revenues
Millions



Explanation of Changes

Total General Fund revenues are projected to decrease $24.1 million for 2020 and increase $26.7 million in 2021. The following discussion further explains the changes in the 2020 / 2021 revenue budget.

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 incr/(decr)	21 vs 20 incr/(decr)
Water O&M charges	$ 184.4	$ 190.7	$ 207.2	$ 6.3	$ 16.5
Capital charges	27.9	35.8	42.2	7.9	6.4
Power & BDF revenues	43.8	9.0	7.8	(34.8)	(1.2)
Property taxes	77.7	81.9	86.5	4.2	4.6
Interest income	20.8	13.1	13.5	(7.7)	0.4
Total	$ 354.6	$ 330.5	$ 357.2	$ (24.1)	$ 26.7

Water O&M Charges

As discussed in the Water Delivery Volumes and Water Delivery Charges on pages 2-4 through 2-8, water O&M revenue is directly linked to the amount of water that is delivered and the rates that are charged (see page 7-3). It is anticipated that both 2020 and 2021 will be Tier Zero delivery years with water deliveries (including credits) of 1.410 million acre-feet and 1.474 million acre-feet, respectively. Water deliveries for 2019 are projected to be 1.398 million acre-feet. Deliveries are less than in prior years due to the shortage mitigation programs that leave water in Lake Mead. In 2020, the Gila River Indian Community is decreasing its order by 83,000 acre-feet to create Intentionally Created Surplus (ICS) credits by leaving water in Lake Mead. The ICS credits will be available to the GRIC in the future. The Fixed OM&R costs of the future deliveries are being paid so as not to have a detrimental impact to the current rate, though this prepayment will be held as a customer deposit and does not impact current revenue. As volumes decrease, the Fixed OM&R rate increases. Most of the 2020 and 2021 Water O&M revenue increases are related to increases in water volumes.

Water O&M revenue is also impacted by the amount of water storage tax that the Arizona Water Banking Authority uses to pay for its water. Revenue is recorded upon receipt of the water storage tax and consequently is not recorded if the tax is used to pay for water deliveries. Due to the decreased volumes and the lack of excess water, no deliveries are planned for AWBA.

Capital Charges

Capital charge revenue is based on $41 per acre-foot for 2019, $56 per acre-foot in 2020 and $66 per acre-foot in 2021. Due to the decrease in revenues in the Basin Development Fund, capital charges have been increased to cover the annual federal debt repayment. Capital charges are paid on M&I water allocations, not delivery. Excess water, excluding the Ag Settlement Pool, pay a facility use fee, which is equivalent to the capital charge.

Though it is anticipated that 46,629 acre-feet of non-Indian Agriculture (NIA) water will be allocated by the end of 2022, there are currently significant unknowns regarding the precise timing of the reallocation. Part of this reallocation includes back capital charges and related interest. Due to this uncertainty, the back capital charges and related interest have not been included in the budget.

Power & BDF Revenues

Power and BDF revenues are decreasing significantly starting in 2020 due to the closure of the Navajo Generating Station (NGS) at the end of 2019. Power sales previously went into the BDF, which is held by the Bureau of Reclamation (Bureau) and lowered the amount of the cash payment on the federal debt. CAWCD recognizes the revenue going into the fund that is available as a credit against the repayment with a corresponding accounts receivable due from Bureau.

- Transmission revenues and costs
- Land use charges and land sales

Power & BDF revenue is shown in the following table:

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 incr/(decr)	21 vs 20 incr/(decr)
Power sales:					
SRP consideration fee	$ 28.0	$ -	$ -	$ (28.0)	$ -
Net surplus power/ net NGS operations	1.3	-	-	(1.3)	-
Hoover 4.5 mil revenue	3.1	3.0	3.0	(0.1)	-
Parker-Davis 4.5 mil revenue	2.7	2.7	2.7	-	-
Net CAP transmission revenues	7.0	0.8	0.8	(6.2)	-
Land-related revenue	1.3	2.0	0.8	0.7	(1.2)
Misc NGS Revenues	0.3	0.5	0.5	0.2	-
Total	$ 43.7	$ 9.0	$ 7.8	$ (34.7)	$ (1.2)

Property Taxes

CAWCD is authorized to assess two property taxes in Maricopa, Pinal and Pima Counties - a general ad valorem tax and a water storage tax. Currently, all property is taxed based on Limited Assessed Value (LPV). The Board establishes the tax rates each June for the following tax year and may change the rates as it deems appropriate.

In exchange for agricultural customers giving up water rights, there was an agreement to put in place the agricultural settlement pool and payment for the associated Fixed OM&R costs (known as the Ag Consideration). This pool was initially 400,000 acre-feet, but decreased to 300,000 in 2017, and will decrease to 225,000 in 2024 and to zero in 2031.

The general ad valorem tax, while available for most District needs, has in recent years been used primarily to pay for the Ag Consideration, Ag Settlement Pool incentives (energy rate reductions), NGS decommissioning costs and federal repayment shortfalls.

In June 2019, the CAWCD Board set the general ad valorem tax rate at $0.10 per $100 of LPV and the water storage tax at $0.04 per $100 of LPV for the tax year 2019 / 2020 . The Board also directed that $.025 of the general ad valorem tax to be held in a separate account including accrued interest for extraordinary cost needs. The water storage tax is to be used for repayment or CAWCD operating costs.

These rates and Board directions have been maintained in the 2020 / 2021 budget. As the Board makes an annual decision on setting the tax rates these projections may change significantly.

(Millions)

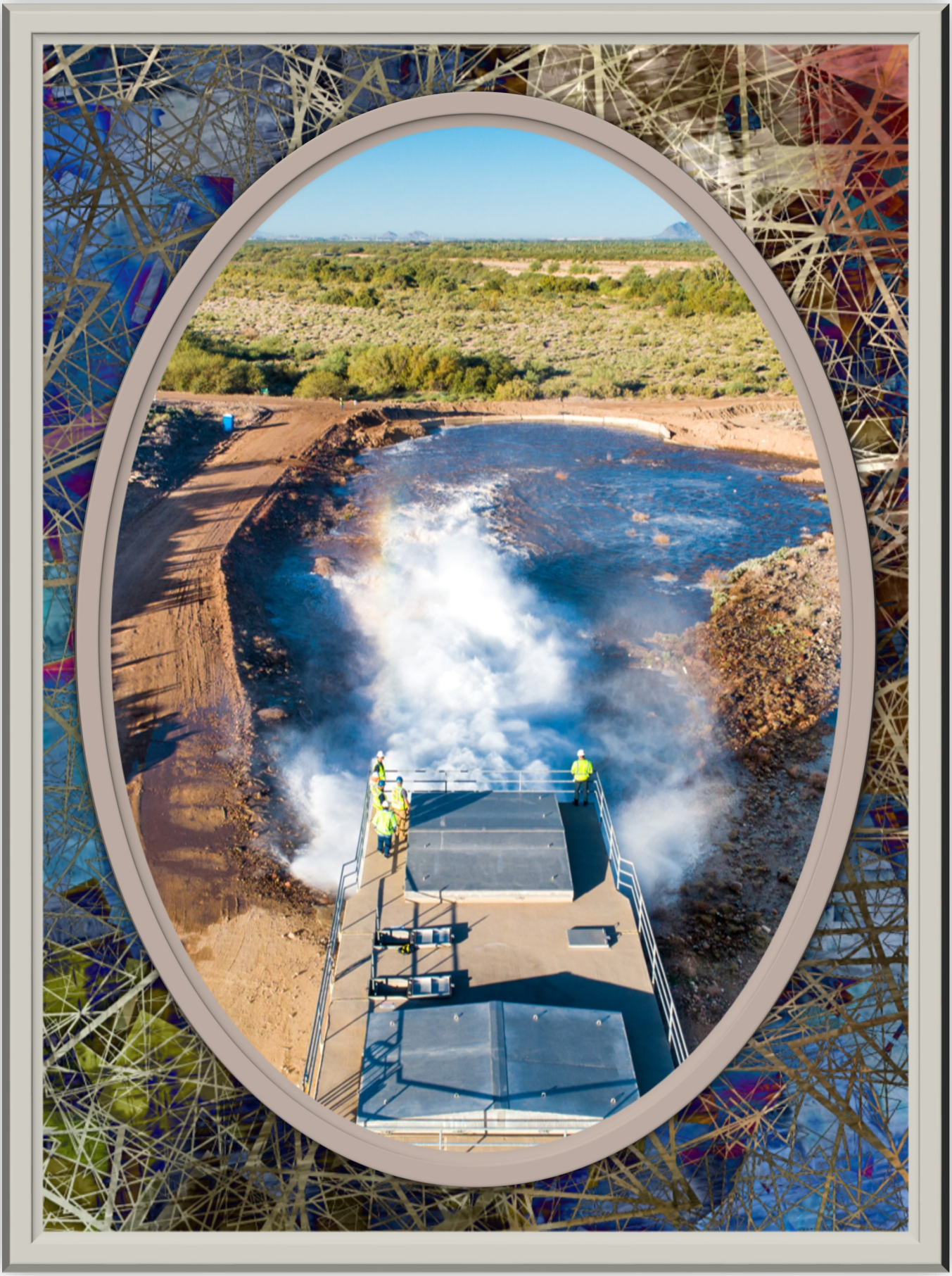
Calendar Year	General Ad Valorem Tax	Water Storage Ad Valorem Tax	Total Revenue	Year-over-Year incr/(decr)
2017	$49.2	$19.6	$68.8	(0.7)
2018	51.1	20.9	72.0	3.2
2019	56.6	21.1	77.7	5.7
2020	58.3	23.6	81.9	4.2
2021	61.6	24.9	86.5	4.6

Interest Income

Interest income is projected to be at $11.0 million in 2020 and $11.6 million in 2021. Funds are invested with the Arizona State Treasurer and interest is earned on approximately 20% short-term investments (under 1 year) and 80% longer term investments (average 4.5 years).

Other Revenue

Other revenue is mostly revenue from Recharge O&M with some smaller revenues associated with customer land use reimbursements and other miscellaneous revenues. These revenues are anticipated to remain stable for 2020 through 2021.



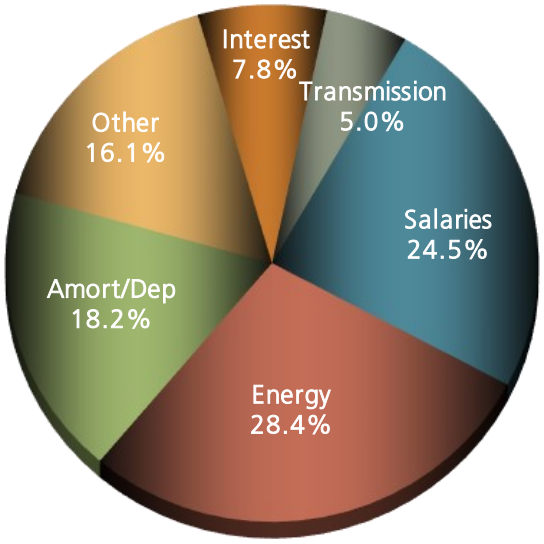
Salt River Siphon—Blow Out

EXPENSES

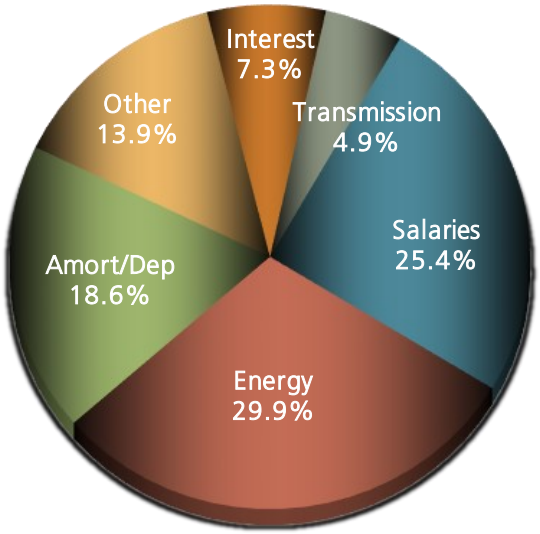
Expenses consist of pumping energy, salaries and related costs, amortization and depreciation, interest and other operating costs.

Pumping energy is the District's most significant expense, accounting for 28.4% of the 2020 expenses and 29.9% of the 2021 expenses. Salaries and related costs represent the second largest category, followed by amortization and depreciation, other costs (primarily outside services and supplies), interest expense, and transmission costs.

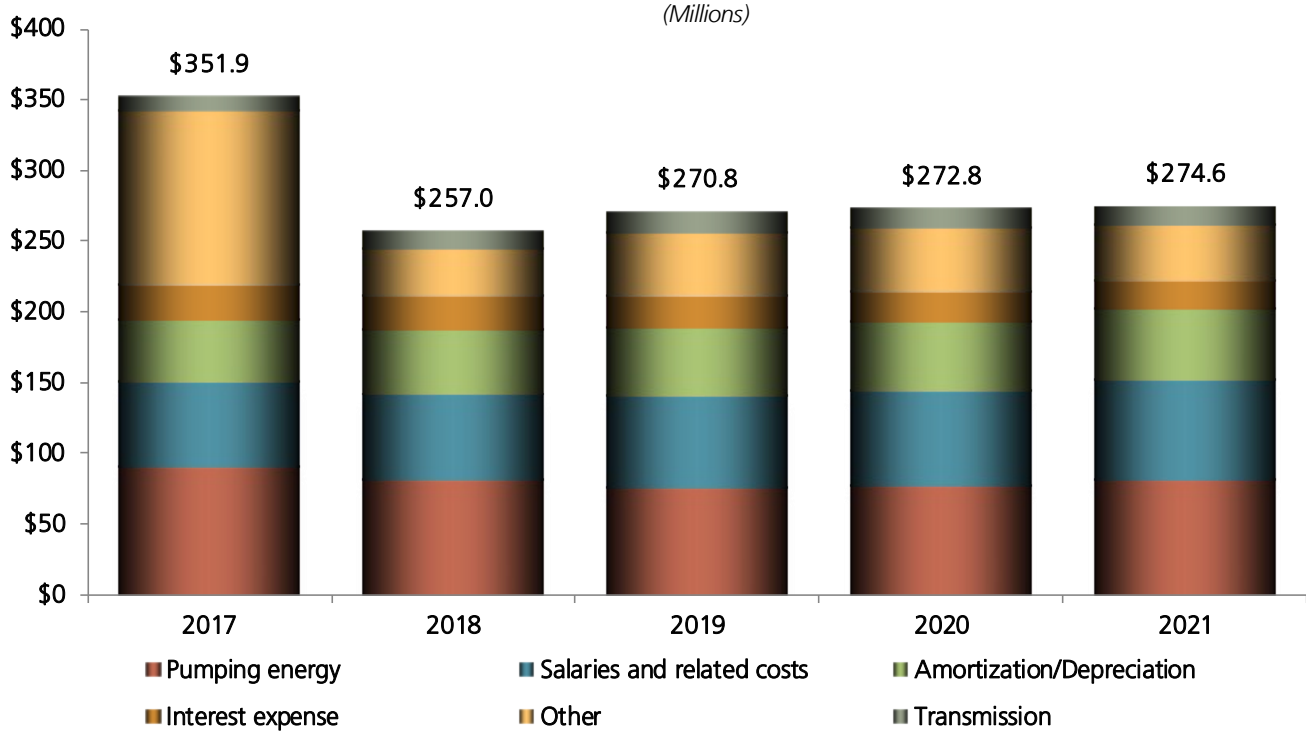
General Fund - 2020 Expenses
($272.8 Million)



General Fund - 2021 Expenses
($274.6 Million)



General Fund Expenses
(Millions)



Explanation of Changes

There are three major factors that affect expenses: (1) an aging infrastructure resulting in higher maintenance costs and increased depreciation due to greater capital spending; (2) the energy market which impacts pumping energy; and (3) significant Colorado River issues that require expenditures in an attempt to mitigate the impact on the District and our customers. The following discussion further explains the 2020 / 2021 expense budget.

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 incr/(decr)	21 vs 20 incr/(decr)
Salaries and related costs	$ 65.0	$ 66.7	$ 69.7	$ 1.7	$ 3.0
Pumping energy	75.7	77.4	82.0	1.7	4.6
Transmission	14.8	13.7	13.4	(1.1)	(0.3)
Amortization/Depreciation	48.2	49.7	51.0	1.5	1.3
Other expenses	44.7	44.0	38.3	(0.7)	(5.7)
Interest expense	22.4	21.3	20.2	(1.1)	(1.1)
Total expenses	$ 270.8	$ 272.8	$ 274.6	$ 2.0	$ 1.8

Salaries and Related Costs

Prior to replacement of a position, it is reviewed to determine the most effective and efficient manner to fill the needs of that position, whether it be through replacement, consolidation or restructuring. There are no additional full time equivalents (FTEs) being requested during the budget period. Merit increases are budgeted at 3% for each year based on a recent compensation study.

The amount of labor spent on capital projects will also impact General Fund expenses. If there are more capital projects with internal labor, the labor, benefits and overhead are capitalized as part of the project rather than being expensed.

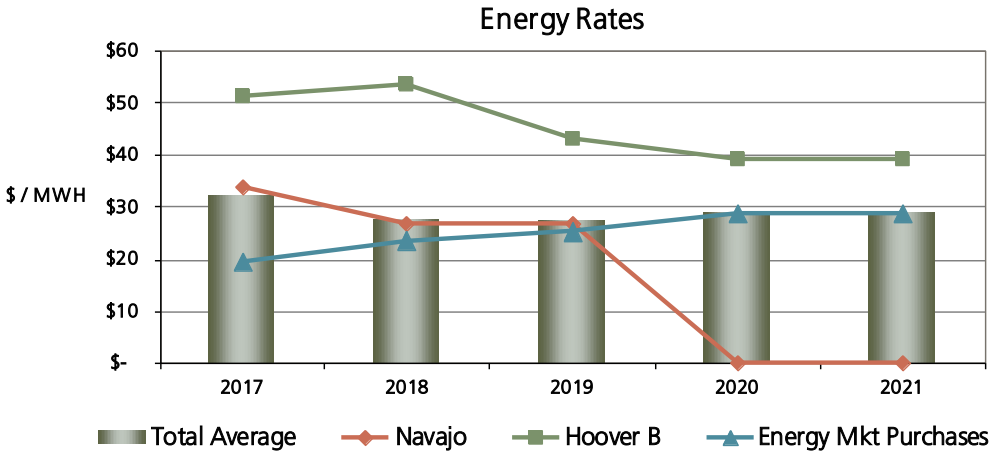
CAWCD has established a vacancy and salary savings equivalent adjustment of fifteen positions in the 2020 and 2021 budget. Overall, salaries and related costs are anticipated to increase $1.7 million in 2020 and $3.0 million in 2021 for the General Fund.

Pumping Energy Costs

Five factors influence pumping energy costs:

(1) the amount of energy needed to divert water from the Colorado River;
(2) the number of pumping stations through which the water travels to get to its delivery point;
(3) the increase or decrease in water inventory in both Lake Pleasant and Lake Roosevelt;
(4) the unit cost of purchased energy; and
(5) the energy trading markets. CAP typically uses 2.5 - 2.7 gigawatt hours (GWh) of energy in a year.

Energy costs increase in 2020 and 2021 as a result of increased deliveries. Average market price is anticipated to be relatively flat during the budget period.



Storage in Lake Pleasant is accounted for as water inventory on the statement of net position. If water is released from the lake to meet demands, pumping energy costs increase and water inventory decreases. However, if more water is stored in the lake, water inventory will increase on the statement of net position and pumping energy costs will decrease.

Other costs include scheduling and balancing services that are required under the energy arrangements.

Detail on pumping energy costs can be found in the Appendix (page 7-7)

Transmission

Transmission costs are relatively stable in the budget period. Western Area Power Authority (WAPA) provides transmission line maintenance for the CAP transmission system through an interagency agreement that is included in transmission costs.

Amortization and Depreciation

The permanent service right (PSR) represents the District's right to operate and maintain the CAP system. Amortization is $23.0 million for 2020 through 2021 based on the preset amortization schedule.

Depreciation expense is anticipated to increase to $26.7 million in 2020 and $28.0 million in 2021, due to capital expenditures to maintain an aging infrastructure and additions to capital equipment, buildings and structures.

Other Expenses

This category includes property and casualty insurance, licenses, fees, permits, Multi-Species Conservation Program (MSCP) fees, Hoover capacity charges, outside services, materials and supplies and other costs related to travel, overhead allocation, etc.

Other expenses are anticipated to be $44.0 million in 2020 and $38.3 million in 2021. Although the mix of items change from year to year, overall the recurring costs for operational expenses remains fairly consistent. Board elections occur in even-numbered years and can cause year-over-year variances. Extraordinary cost projects also cause variability from year-to-year, though there is only one extraordinary project that is wrapping up in early 2020 that is included in the budget period.

Part of other expenses include transfers to AWBA. It is anticipated that $6.0 million will be transferred to the AWBA in 2020 for long-term storage credit (LTSC) purchase and no transfer is currently planned in 2021. Annually, the Board determines the amount to transfer based on the AWBA requested amounts for LTSC purchases based on the AWBA Annual Report. When the transfers occur, property tax revenue is decreased by the amount of the transfer. The AWBA may request funds for LTSC purchases in 2021 when the AWBA Annual report is completed in 2020. In addition, $0.5 million is anticipated to be transferred to AWBA for administration costs in 2020 and 2021.

Interest Expense

Interest expense is anticipated to be $22.4 million in 2019, $21.3 million in 2020 and $20.2 million in 2021. It is made up of interest related to the District's federal repayment and the existing CAWCD bond 2016 series issue, offset by the bond premium amortization and capitalized interest.

Change in Net Position

Overall, net income will increase. The increase is mainly attributable to assumption that the collection of general ad valorem tax revenues and water storage tax revenues will be maintained above planned expenditures .

(Millions)	2019 Projection	2020 Budget	2021 Budget	20 vs 19 incr/(decr)	21 vs 20 incr/(decr)
Revenues	$ 354.6	$ 330.5	$ 357.2	$ (24.1)	$ 26.7
Expenses	(270.8)	(272.8)	(274.6)	(2.0)	(1.8)
Change in net position	83.8	57.7	82.6	(26.1)	24.9
Net position at beginning of period	503.8	587.6	645.3	83.8	57.7
Net position at end of period	$ 587.6	$ 645.3	$ 727.9	$ 57.7	$ 82.6

Inside the Salt River Siphon

A 2019 article from CAP's Internal Communications - - CAP Connections

By Vicky Campo

As I stepped down, one rung after another, I wondered how long it would be before I reached the bottom. I felt a slight twinge of fear with every wobble of the ladder, even though I was safely tied off. Below me was some sort of device that looked like a lighted balloon, and I could see its bright glow bend against the round walls. When I finally stepped on solid ground and was able to look around, I was astonished. I was standing in the invert of the Salt River Siphon, one of the largest steel pipes ever built by the Bureau of Reclamation. I'd be lying if I said it wasn't eerie.

The Salt River Siphon hasn't been repaired in over 17 years. In 2009 Engineering did a partial inspection on the outlet and the inlet, and in 2016 a Reliability Centered Maintenance Assessment was done to identify critical infrastructure--particularly the siphon. They identified needed repairs and determined the potential failure modes. As a result, an inspection was scheduled for 2018, and 2019 was slated as the year to do repairs.

"Our original plan was to do a partial blow off and just inspect the inlet and outlet. But some of our people thought the area of most concern was right underneath the Salt River, so we were able to gain support for a full dewater," explains Phillip Pagels, Engineering Project Manager.

A full dewater allowed inspectors to see the entire siphon, thereby taking a good deal of risk out of the project, and that can reduce costs greatly.

"If we didn't do this inspection, you might expect a 20-30% increase in the total cost. But now we are able to identify a clear scope of work, and that is always the toughest part of a project like this," Pagels said.

The outage for this inspection was only three days. On Tuesday morning the siphon was dewatered, and by Wednesday biologist Scott Bryan was wrangling fish.

I joined the crews on Thursday. Retiree Rudy Gates, who led the Protective Coatings crew in the 2001 repairs, was called back as a consultant to help assess the condition of the pipe. He and Jake Pickard were the only ones on this job who had previously been inside this pipe, and they were excited to see that its condition wasn't nearly as bad as expected.

"Jake and Rudy have seen as much of our pipes as anyone. In fact, I worked that siphon outage with Rudy in 2001, so I've been

there several times myself. There has been some discussion about the rough condition that siphon must have been in, but I think in general, what I got from both Jake and Rudy, was, no, not at all. In fact, it looked pretty darn good," said Bob Moody, Director of Field Maintenance.

According to Pagels, the sections that were most visually degraded were from the Air Valve Structure to the Cathodic Protection Structure, comprising about 2300 feet.

"We didn't anticipate that being the worst section. We thought underneath the Salt River would be the worst. What we saw was pitting along the invert and some exposed metal. According to our inspection team, there was maybe a 5-10% degradation of the material throughout the entire siphon, which isn't as bad as we thought. So, mainly the points of highest friction right along the invert, where sediment just rolls along and wears away on the existing coating, that's where the visual damage was," Pagels said.

In truth, the Agua Fria Siphon, which was inspected earlier this year in August and September, was visually in worse condition than the Salt River Siphon. But because customers have already been notified of the 2019 repairs and cities have already begun planning, the Salt River Siphon will be done first and Agua Fria will follow in 2022.

The outage for the Salt River Siphon repairs will be six weeks and crews will work around the clock. Because the coating is in such good condition, Pagels believes they will only make repairs along the invert and the welds, but the final reports will tell more.

CAP will provide a support role for the 2019 inspection and dewatering, but the contractor will be responsible for most of the work. They will do the full dewater, provide safety support, remove the old coatings and apply the new, and perhaps even provide a third-party inspection company. Our inspectors will be there as well as part of the team. CAP will do the lock out tag out, operate the evacuations structure, and set the stop logs.

At the same time, another portion of work will be happening just downstream at the Salt Gila Pumping Plant where CAP crews will be dewatering the forebay and removing the sediment. It's a lot to accomplish in six weeks.

"We had a lot of external support for this inspection. Achen Gardner was the contractor who performed the dewatering, HDR is the designer and Hartman Walsh is the coating contractor. Of course there was a lot of internal support from Safety, Reliability, Communications, Salt Gila Pumping Plant, the HOGs, and many others. It was a total team effort," said Pagels.

For me it was a remarkable experience.

Statements of Revenues, Expenses & Changes in Net Position
General Fund
(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Water Deliveries with credits (acre-feet in thousands)	1,382	1,491	1,398	**1,410**	**1,474**
Operating Revenues					
Water operations & maintenance charges	$ 190,561	$ 186,829	$ 184,424	**$ 190,743**	**$ 207,196**
Water service capital charges	21,241	32,235	27,908	**35,740**	**42,173**
Power & Basin Development Fund revenues	30,261	27,819	43,774	**8,993**	**7,798**
Reimbursements and other revenues	1,877	1,913	2,330	**2,090**	**2,014**
Total Operating Revenues	243,940	248,796	258,436	**237,566**	**259,181**
Operating Expenses					
Salaries and related costs	(59,896)	(59,891)	(65,056)	**(66,676)**	**(69,700)**
Pumping energy & Capacity Charges	(90,558)	(81,807)	(75,663)	**(77,445)**	**(81,989)**
Transmission	(9,576)	(12,596)	(14,789)	**(13,703)**	**(13,366)**
Amortization of permanent service right	(23,162)	(23,162)	(23,162)	**(23,001)**	**(23,001)**
Depreciation and Amortization	(21,016)	(23,125)	(25,053)	**(26,709)**	**(28,016)**
Other operating expenses					
Outside services	(18,917)	(18,522)	(24,322)	**(24,101)**	**(24,974)**
Materials and supplies	(6,932)	(8,340)	(8,016)	**(8,930)**	**(8,361)**
Overhead	6,334	5,290	4,299	**5,731**	**5,247**
Other expenses	(85,249)	(8,646)	(9,715)	**(10,147)**	**(9,757)**
Subtotal	(104,764)	(30,218)	(37,754)	**(37,447)**	**(37,845)**
Total Operating Expenses	(308,972)	(230,799)	(241,477)	**(244,981)**	**(253,917)**
Operating Income/(Loss)	(65,032)	17,997	16,959	**(7,415)**	**5,264**
Non-operating Revenues/(Expenses)					
Property taxes					
General ad valorem tax	49,114	51,123	56,542	**58,363**	**61,616**
Water storage tax	19,646	20,884	21,148	**23,554**	**24,867**
Interest income & other non-operating revenues	5,774	7,544	18,501	**11,022**	**11,564**
Disbursements to AWBA	(17,889)	(2,738)	(6,933)	**(6,513)**	**(540)**
Interest and uncollectable tax expense	(25,029)	(23,500)	(22,404)	**(21,345)**	**(20,219)**
Total Non-operating Income/(Loss)	31,616	53,313	66,854	**65,081**	**77,288**
Change in Net Position	(33,416)	71,310	83,813	**57,666**	**82,552**
Cumulative-effect of Change in Accounting Principles	-	(14,471)	-	-	-
Net Position at beginning of year	480,420	447,004	503,843	**587,656**	**645,322**
Net Position at end of year	$ 447,004	$ 503,843	$ 587,656	**$ 645,322**	**$ 727,874**

Statements of Revenues, Expenses & Changes in Net Position
Underground Storage Projects O&M (Included in General Fund)
(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Water Deliveries (acre-feet in thousands)	106	119	102	**98**	**93**
Revenues					
Reimbursements and other revenues	1,393	1,633	1,422	**1,368**	**1,293**
Total Revenues	$ 1,393	$ 1,633	$ 1,422	**$ 1,368**	**$ 1,293**
Expenses					
Salaries and related costs	(243)	(274)	(192)	**(218)**	**(226)**
Other operating expenses					
Outside services	(326)	(88)	(285)	**(230)**	**(180)**
Materials and supplies	(67)	(84)	(93)	**(85)**	**(72)**
Other expenses	(706)	(699)	(732)	**(675)**	**(683)**
Subtotal	(1,099)	(871)	(1,110)	**(990)**	**(935)**
Total Expenses	$ (1,342)	$ (1,145)	$ (1,302)	**$ (1,208)**	**$ (1,161)**
Change in Net Position	51	488	120	**160**	**132**
Net Position at beginning of year	5,121	5,172	5,660	**5,780**	**5,940**
Net Position at end of year	$ 5,172	$ 5,660	$ 5,780	**$ 5,940**	**$ 6,072**
Expense Summary					
Agua Fria	(135)	(123)	(123)	**(116)**	**(101)**
Hieroglyphic Mountains	(249)	(267)	(257)	**(289)**	**(217)**
Lower Santa Cruz	(369)	(298)	(456)	**(372)**	**(414)**
Pima Mine Road	(245)	(144)	(117)	**(149)**	**(142)**
Superstition Mountain	(273)	(222)	(303)	**(221)**	**(223)**
Tonopah	(71)	(91)	(46)	**(61)**	**(63)**
Total Expenses	$ (1,342)	$ (1,145)	$ (1,302)	**$ (1,208)**	**$ (1,160)**

Extraordinary Maintenance & Operating Projects

(Included in General Fund)

(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Expenses					
Salaries and related costs	$ (436)	$ (393)	$ (464)	**$ (29)**	**$ -**
Other operating expenses					
Outside services	(4,468)	(1,192)	(6,551)	**(100)**	**-**
Materials and supplies	(14)	(27)	(5)	**-**	**-**
Other costs	(518)	(386)	(468)	**(31)**	**-**
Subtotal	(5,000)	(1,605)	(7,024)	**(131)**	**-**
Total Expenses	$ (5,436)	$ (1,998)	$ (7,488)	**$ (160)**	**$ -**
Expense Summary					
EM-Steel Discharge Lines & Manifold Recoat MWA*	(5,405)	-		**-**	**-**
EM-Pool 33 Repairs	(31)	(1,224)		**-**	**-**
EM-P4 Embankment & Road Issues	-	(774)		**-**	**-**
EM-Discharge Lines & Manifolds Recoat at Waddell*	-	-		**-**	
EM-Manifold Relining at LHQ & Hassayampa*	-	-	(1,268)	**-**	**-**
EM-Siphon Repairs at Salt River*	-	-	(6,220)	**(160)**	**-**
Total Expenses	$ (5,436)	$ (1,998)	$ (7,488)	**$ (160)**	**$ -**

*Funded through "Big R"

Extraordinary Maintenance Project Included in the General Fund Operating Expenses

Siphon Repairs at Salt River

Strategy:	Effectively Manage, Operate and Maintain CAP Assets	**Start Date:**	1st Quarter 2018
Key Result Area:	Project Reliability	**Completion Date:**	1st Quarter 2020
Project #:	710038	**Total Project Cost:**	$ 6,380,000
		Funding Source:	"Big R"

Financial Impact / Cost Estimate (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 6,380	$ 6,220	$ 160	$ -	$ -	$ -	$ -	$ -	$ -

Description: The Salt River Siphon (Siphon) was constructed between 1993 and 1995 by the Bureau to replace the original siphon, built in 1977. It conveys canal water under the Salt River and is a feature of the Hayden Road Aqueduct. The siphon is a 21-foot internal diameter steel pipe, 8,025 feet long. The interior of the steel siphon was originally coated with coal-tar epoxy. The scope of this project consisted of inspection and repair of interior siphon coatings that had been compromised or removed over time in order to protect and preserve the steel pipe material. This project was essentially completed in 2019 and is being closed out in early 2020.

Justification: The Salt River Siphon is critical to the delivery of water to customers south of the Salt River. Approximately 80% of all CAP water deliveries pass through the Siphon. Repairs are necessary to ensure the Siphon's continued performance.

Operating Impact: The implementation of this project increased the reliability of the Siphon and reduced the risk of future failures that would be costly to CAP.

Social Impact: The Salt River Siphon resides on tribal land and special considerations were taken during construction.

Environmental Impact: The removal of fish was required to fully dewater the Siphon.

Central Arizona Groundwater Replenishment District Account

In 1993, the Arizona legislature authorized the Central Arizona Groundwater Replenishment District (CAGRD). CAGRD is a replenishment authority designed to provide a mechanism by which water providers, cities and developments with adequate groundwater supplies, but with either inadequate or no renewable water supplies, can still develop and comply with the State's Assured Water Supply Rules (AWS Rules). The AWS Rules are designed to protect groundwater supplies within each Active Management Area (AMA) and to ensure that people purchasing or leasing subdivided land within an AMA have a water supply of adequate quality and quantity. CAGRD is a division of the Central Arizona Water Conservation District (CAWCD). Although it is funded separately by its members, it reports to the same Board of Directors that governs CAWCD. Membership in CAGRD is voluntary. Any city, town, water company, subdivision or homeowner's association located in Maricopa, Pinal or Pima counties may join CAGRD. CAGRD is comprised of two types of members:

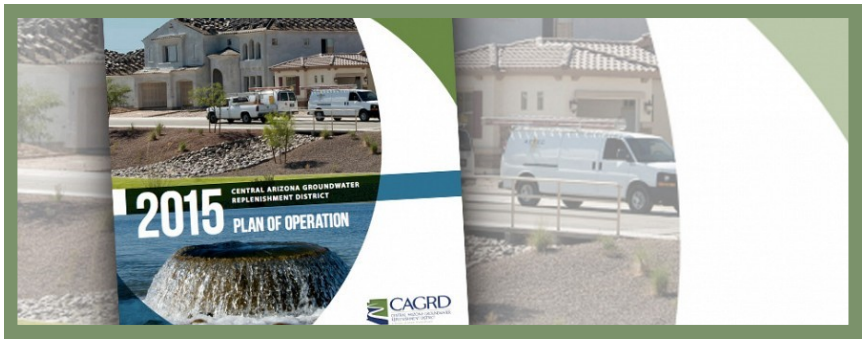
Member Service Areas (MSA) — The service area of a city, town or private water company, including any additions to or extensions of the service area

Member Lands (ML) — An individual subdivision with a defined legal description

CAGRD members are located in the Phoenix, Pinal and Tucson AMAs established by Arizona's 1980 Groundwater Management Code (Code). AMAs are areas that have experienced significant groundwater depletion. The CAGRD must recharge (i.e., replenish) the amount of groundwater used by its members that exceeds the pumping limitations imposed by the AWS Rules. This category of water is referred to as excess groundwater.

Plan of Operation

CAGRD is operating under the 2015 Plan of Operation. The Plan, which was developed through a lengthy stakeholder process, was submitted to the Arizona Department of Water Resources (ADWR) on December 29, 2014. On August 15, 2015, the ADWR Director found the Plan to be consistent with the management goals of the Phoenix, Pinal and Tucson AMAs and subsequently approved the Plan. Statutes require CAGRD to prepare and submit a new plan to ADWR every ten years. The 2015 Plan is effective through December 31, 2024.

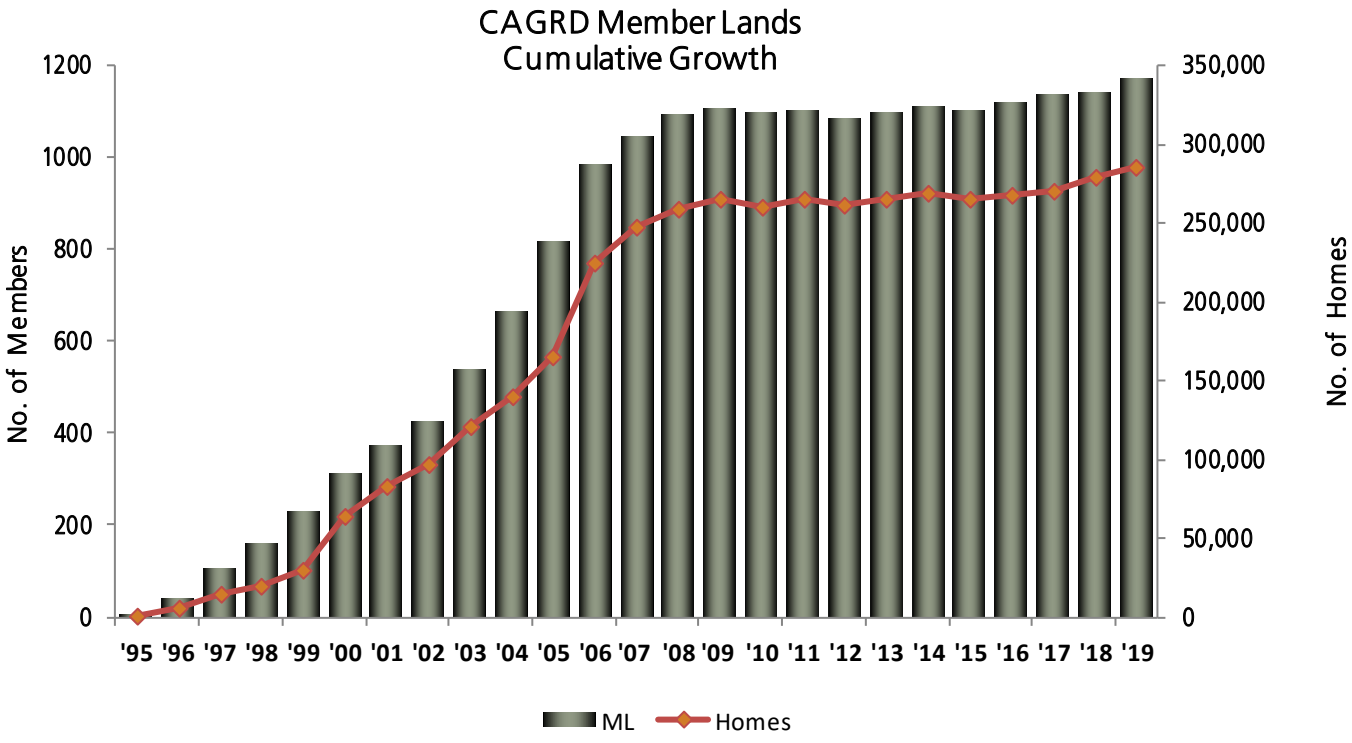


Replenishment Obligation

The first members were enrolled in the CAGRD in 1995. As shown on the following graph, the number of enrolled ML subdivisions will have grown to more than 1,140 through 2018 with approximately 279,000 enrolled lots falling within the ML boundaries. As indicated in the graph, ML enrollment has slowed considerably since 2008 due to the downturn in the Arizona housing market, but has begun to rebound in recent years. For purposes of developing the budget, it was assumed there will be a modest increase in the rate of ML enrollments during 2020 and 2021. The number of enrolled MSAs currently stands at 24. As the number of MLs and MSAs grows, CAGRD's replenishment obligation also will grow.

The CAGRD incurs three different kinds of replenishment obligations:

- Parcel replenishment obligations, which result from excess groundwater deliveries to individual parcels of ML;
- Service area replenishment obligations, which result from excess groundwater deliveries within an MSA; and
- Contract replenishment obligations which, result from contracts executed between CAWCD and the water providers serving MSAs. Under such contracts, CAGRD would perform "advance replenishment" for the contracting MSA. CAGRD has only one active contract replenishment obligation agreement in place (City of Scottsdale) and can no longer enter into any new contract replenishment agreements



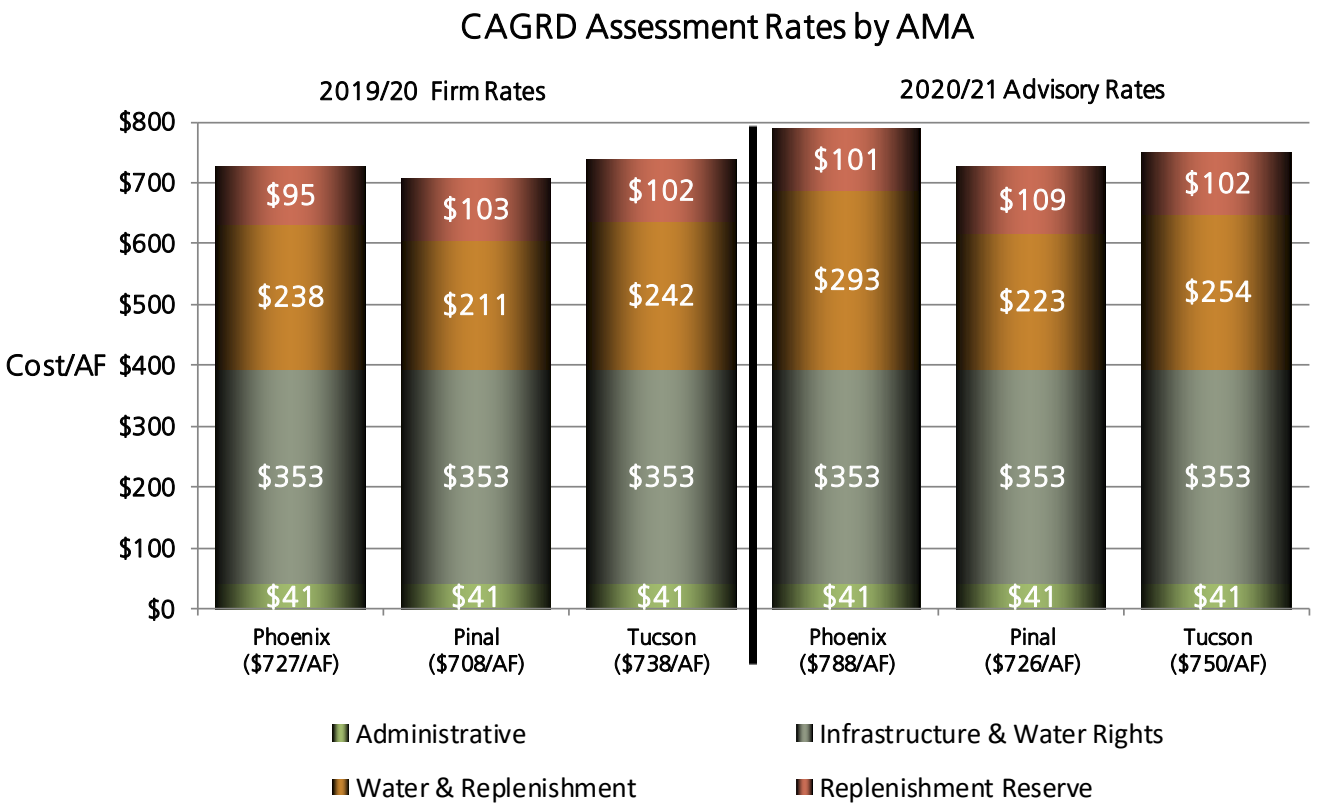
REVENUES

CAGRD was established with the requirement that all of the costs of CAGRD be paid by its members. CAGRD has three primary sources of revenues: annual replenishment assessments, up-front fees and membership dues. In addition, CAGRD accrues interest on the reserves established by these sources. CAGRD rates go into effect following the Board approval at its June Board meeting.

Annual replenishment assessments are collected from CAGRD members based on the volume of excess groundwater they used in the previous year. In accordance with the existing policy, the Board adopts a replenishment assessment rate schedule after a public rate-setting process. CAGRD's assessment rates are established by the individual AMA and consist of the following four components: (a) water and replenishment; (b) administrative; (c) infrastructure and water rights; and (d) replenishment reserve. Each assessment component is specifically assigned to cover costs incurred by CAGRD.

The water and replenishment component is designed to cover annual water and replenishment costs that will be incurred by CAGRD in meeting the replenishment obligation resulting from its members' actual use of excess groundwater. The administrative component pays for CAGRD's operating costs, including wages, benefits and overhead. A portion of the administrative component also supports the CAGRD conservation program adopted by the Board in 2006.

The infrastructure and water rights component provides a capital reserve fund to purchase long-term rights to water, as opportunities arise, and to construct additional infrastructure (e.g., replenishment facilities) as the need arises. The replenishment reserve component is designed to cover water and replenishment costs associated with establishing and maintaining a replenishment reserve of long-term storage credits in each AMA, as required by statute.



Up-front fees are generally collected from CAGRD members before they begin using excess groundwater. These fees consist of (a) enrollment fees; (b) activation fees; and (c) replenishment reserve fees. The fees are established by the Board and are published with the replenishment assessment rate schedule.

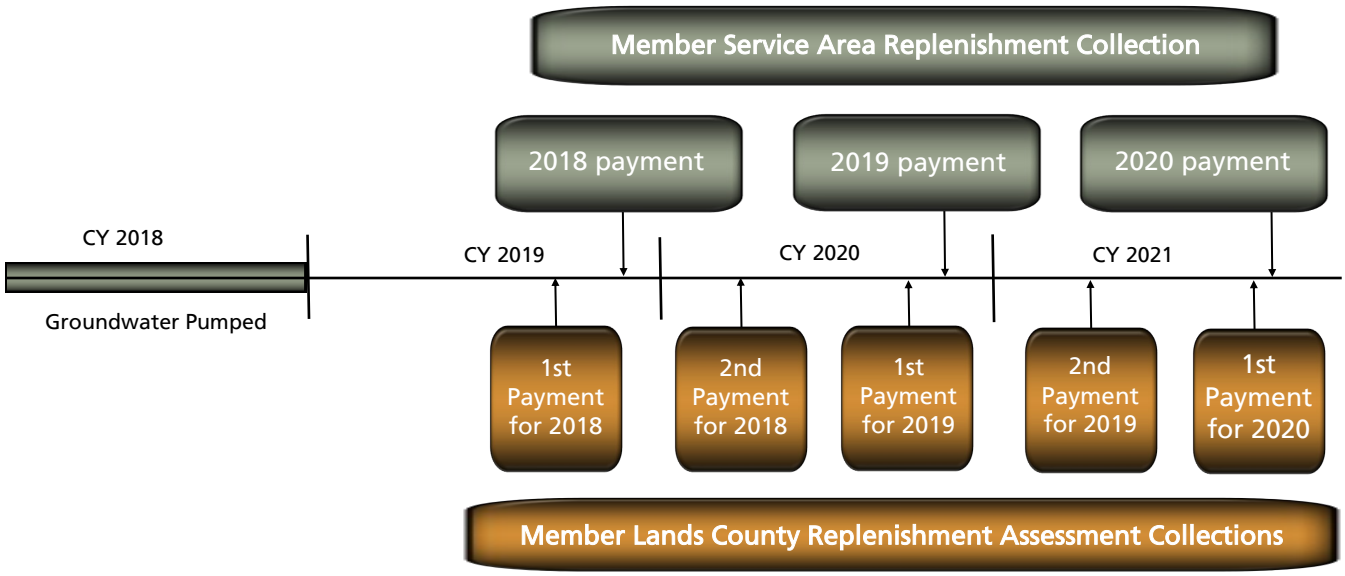
An enrollment fee is collected from applicants who propose to enroll a subdivision as an ML of the CAGRD. The fee is based on the number of housing units in the proposed subdivision and will be used in conjunction with the infrastructure and water rights component to purchase water rights and develop infrastructure. A small portion ($2 per housing unit) of the ML enrollment fee also supports CAGRD's conservation program.

MSAs also pay an enrollment fee; MSA enrollment fees currently are a flat fee of $5,000 to cover the administration costs of enrolling the MSA in the CAGRD.

Like ML enrollment fees, activation fees are collected on a per housing-unit basis and are to be used to purchase water rights and develop infrastructure. Activation fees are collected on new homes in both ML and MSA subdivisions before the subdivision homes are actually constructed and offered for sale.

Replenishment reserve fees are used in conjunction with the replenishment reserve rate component to support CAGRD's replenishment reserve program. For MLs, the replenishment reserve fee is collected along with the activation fee and is based on the subdivision's projected build-out excess groundwater demand. For MSAs, the replenishment reserve fee is collected with the annual replenishment fee and is based on the increase in excess groundwater delivered within the service area during the previous year.

Membership dues apply to all members, even if they are not yet reporting excess groundwater use. Membership dues provide a reliable revenue source that can assist in establishing creditworthiness for bonding and funds to secure water supplies and related infrastructure.



Expenses

CAGRD has ongoing operating expenses and costs related to administration, planning, membership enrollment, water supply acquisition, annual reporting and satisfaction of annual replenishment obligation. The largest expenses incurred by CAGRD result from purchasing and recharging water to meet existing obligation and acquisition of water rights to ensure satisfaction of future replenishment obligation.

CAGRD replenishment assessment rates are established based on the actual volume of excess groundwater delivered to or used by CAGRD members in the previous year. CAGRD has up to three years to replenish water to meet that obligation, so the actual replenishment may lag and may be accomplished earlier or later than when collections are received. This point is shown in the diagram using groundwater pumped in calendar year 2018. Currently, CAGRD is replenishing in the year subsequent to the year pumped.

Water Supply Program

CAGRD's Plan of Operation outlines a program that identifies a water supply portfolio including general time frames and volumes. CAGRD has been actively acquiring supplies through purchasing Long Term Storage Credits, investment in an effluent project, and entering into leases for water supplies. These supplies provide a source for CAGRD to meet its replenishment obligation.

In 2019, CAGRD acquired a large acquisition of long-term storage credits and wet water for 25 years from the Gila River Indian Community and Gila River Water Storage LLC. CAWCD (through CAGRD) issued $20 million of 5-year revenue bonds in July 2019 to pay for a portion of the credit purchase. The Infrastructure & Water Rights revenue was pledged for repayment of the bonds.

Change in Net Position

Net position is anticipated to increase $33.8 million in 2020 and $38.6 million in 2021. This increase is primarily due to the continued generation of revenues and establishment of capital reserve funds to support the long-term water rights acquisition program identified in CAGRD's Plan of Operation. In addition, CAGRD is collecting revenues and accruing long-term storage credits in the establishment of its replenishment reserve, which also increases CAGRD's net position. In effect, CAGRD is doing just what it should be doing; that is, accumulating revenue and storage credit reserves and building a portfolio of water rights so that it can meet all of its future replenishment obligations.

Statements of Revenues, Expenses & Changes in Net Position

Central Arizona Groundwater Replenishment District Account

(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Operating Revenues					
Reimbursements & other operating revenues	35,671	38,515	44,055	**50,745**	**58,712**
Total Operating Revenues	$ 35,671	$ 38,515	$ 44,055	**$ 50,745**	**$ 58,712**
Operating Expenses					
Salaries and related costs	(1,157)	(1,162)	(1,046)	**(1,216)**	**(1,252)**
Depreciation	-	(61)	(61)	**(61)**	**(61)**
Other operating expenses					
Outside services	(612)	(312)	(564)	**(402)**	**(450)**
Overhead	(1,179)	(1,174)	(1,062)	**(1,266)**	**(1,304)**
Water for recharge	(16,785)	(2,806)	(15,178)	**(14,162)**	**(17,329)**
Other expenses	(29)	(26)	(39)	**(41)**	**(31)**
Subtotal	(18,605)	(4,318)	(16,843)	**(15,871)**	**(19,114)**
Total Operating Expenses	(19,762)	(5,541)	(17,950)	**(17,148)**	**(20,427)**
Net Operating Income/(Loss)	15,909	32,974	26,105	**33,597**	**38,285**
Non-operating Revenues/(Expenses)					
Interest income	613	1,396	960	**606**	**632**
Interest expense	-	-	(214)	**(453)**	**(367)**
Net Non-operating Income/(Loss)	613	1,396	746	**153**	**265**
Change in Net Position	16,522	34,370	26,851	**33,750**	**38,550**
Net Position as beginning of period	131,317	147,839	182,209	**209,060**	**242,810**
Net Position at end of period	$ 147,839	$ 182,209	$ 209,060	**$ 242,810**	**$ 281,360**

Central Arizona Groundwater Replenishment District Account

Replenishment Obligation Year & Corresponding Purchased Water

(Acre-Feet)

YEAR OBLIGATION ESTABLISHED	ACTUAL 2018	PROJECTED 2019	BUDGET 2020	BUDGET 2021
Replenishment Obligation by AMA				
Phoenix AMA	28,600	28,062	30,211	32,262
Pinal AMA	700	1,040	1,287	1,538
Tucson AMA	3,200	3,125	3,619	4,137
Total Replenishment Obligation	32,500	32,227	35,117	37,937
Contract Replenishment Obligation by AMA				
East Phoenix AMA - Scottsdale	1,260	1,260	-	-
Tucson AMA - Metro Water	-	-	-	-
Total Contract Replenishment Obligations	1,260	1,260	-	-

YEAR OVER YEAR OBLIGATION ACTIVITY BY AMA	ACTUAL 2018	PROJECTED 2019	BUDGET 2020	BUDGET 2021
REPLENISHMENT OBLIGATION ACTIVITY				
Phoenix AMA				
Outstanding Obligation - beginning of the year	17,653	4,285	10,645	30,211
Annual Obligations	28,600	28,062	30,211	32,262
Annual Credits accrued - purchased water and credits	(41,968)	(21,702)	(10,645)	(30,211)
Outstanding Obligation - end of the year	4,285	10,645	30,211	32,262
Pinal AMA				
Outstanding Obligation - beginning of the year	672	1,372	1,040	1,287
Annual Obligations	700	1,040	1,287	1,538
Annual Credits accrued - purchased water and credits	-	(1,372)	(1,040)	(1,287)
Outstanding Obligation - end of the year	1,372	1,040	1,287	1,538
Tucson AMA				
Outstanding Obligation - beginning of the year	3,326	2,162	4,787	3,619
Annual Obligations	3,200	3,125	3,619	4,137
Annual Credits accrued - purchased water and credits	(4,364)	(500)	(4,787)	(3,619)
Outstanding Obligation - end of the year	2,162	4,787	3,619	4,137
Total Outstanding Obligation for All AMAs - end of the year	7,819	16,472	35,117	37,937
CONTRACT REPLENISHMENT OBLIGATION - ACTIVITY				
Phoenix AMA - Scottsdale				
Outstanding Obligation - beginning of the year	-	-	-	-
Annual Obligations	1,260	1,260	-	-
Annual Credits accrued - purchased water and credits	(1,260)	(1,260)	-	-
Outstanding Obligation - end of the year	-	-	-	-

Central Arizona Groundwater Replenishment District Account

Reserve Balances

Cash Basis (Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Water and Replenishment:					
Beginning Fund Balance	$ 2,218	$ 2,370	$ 630	$ 2,704	$ 7,495
Revenue	6,319	6,449	6,560	8,364	10,602
Water/LTSC Purchases	(6,194)	(8,977)	(3,827)	(3,631)	(7,138)
Temporary Transfer from Infrastructure	-	720	(720)	-	-
Interest Income	27	68	61	58	58
Ending Fund Balance	$ 2,370	$ 630	$ 2,704	$ 7,495	$ 11,017
Replenishment Reserve:					
Beginning Fund Balance	$ 638	$ 1,446	$ 4,951	$ 114	$ 808
Revenue	3,517	3,458	3,387	3,650	4,924
Water Purchases	(102)	-	-	-	-
CAP LTSC Purchases	(2,625)	-	(7,507)	(2,664)	(3,466)
I&WR LTSC Purchases	-	-	(758)	(335)	(333)
Interest Income	18	47	41	43	48
Ending Fund Balance	$ 1,446	$ 4,951	$ 114	$ 808	$ 1,981
Infrastructure and Water Rights:					
Beginning Fund Balance	$ 57,748	$ 61,071	$ 83,015	$ 32,690	$ 47,969
Revenue	23,273	27,318	32,974	34,418	39,448
Proceeds from Debt Financing	-	-	19,862	-	-
LTSC transfers to Replenishment Reserve	-	-	758	335	333
External LTSC Purchases	(19,143)	(4,660)	(103,106)	(15,041)	(7,458)
Operating Expenses	(1,360)	(1,219)	(619)	(949)	(1,285)
Debt Service Payments	-	-	(1,734)	(3,973)	(3,972)
Temporary Transfer to Water & Replenishment	-	(720)	720	-	-
Interest Income	553	1,225	820	489	510
Ending Fund Balance	$ 61,071	$ 83,015	$ 32,690	$ 47,969	$ 75,545
Administrative:					
Beginning Fund Balance	$ 1,973	$ 1,632	$ 1,836	$ 1,005	$ 723
Revenue	1,121	1,650	1,222	1,658	1,625
Operating Expenses	(1,478)	(1,474)	(2,092)	(1,956)	(1,752)
Interest Income	16	28	39	16	16
Ending Fund Balance	$ 1,632	$ 1,836	$ 1,005	$ 723	$ 612

Central Arizona Groundwater Replenishment District Account

Water and Replenishment Reserve Trends by AMA

Cash Basis (Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Phoenix AMA					
Beginning Fund Balance	$ 1,641	$ 1,699	$ 116	$ 1,847	$ 6,107
Revenue	5,623	5,673	5,808	7,393	9,323
Water/LTSC Purchases	(5,584)	(8,035)	(3,403)	(3,183)	(6,541)
Transfer from Infrastructure	-	720	(720)	-	-
Interest Income	19	59	46	50	50
Ending Fund Balance	$ 1,699	$ 116	$ 1,847	$ 6,107	$ 8,939
Pinal AMA					
Beginning Fund Balance	$ 238	$ 66	$ 207	$ 10	$ 243
Revenue	104	139	115	230	336
Water/LTSC Purchases	(279)	-	(317)	-	-
Interest Income	3.0	2	5	3	3
Ending Fund Balance	$ 66	$ 207	$ 10	$ 243	$ 582
Tucson AMA					
Beginning Fund Balance	$ 339	$ 605	$ 307	$ 847	$ 1,145
Revenue	592	637	637	741	943
Water/LTSC Purchases	(331)	(942)	(107)	(448)	(597)
Interest Income	5	7	10	5	5
Ending Fund Balance	$ 605	$ 307	$ 847	$ 1,145	$ 1,496
Total - All AMAs					
Beginning Fund Balance	$ 2,218	$ 2,370	$ 630	$ 2,704	$ 7,495
Revenue	6,319	6,449	6,560	8,364	10,602
Water/LTSC Purchases	(6,194)	(8,977)	(3,827)	(3,631)	(7,138)
Transfer from Infrastructure	-	720	(720)	-	-
Interest Income	27	68	61	58	58
Ending Fund Balance	$ 2,370	$ 630	$ 2,704	$ 7,495	$ 11,017

Central Arizona Groundwater Replenishment District Account

Replenishment Reserve Trends by AMA

Cash Basis (Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Phoenix AMA					
Beginning Fund Balance	$ 603	$ 1,190	$ 4,394	$ 95	$ 797
Revenue	3,093	3,162	3,044	3,205	4,414
Water Purchases	(102)	-	-	-	-
CAP LTSC Purchases	(2,420)	-	(7,379)	(2,538)	(3,286)
Interest Income	16	42	36	35	40
Ending Fund Balance	$ 1,190	$ 4,394	$ 95	$ 797	$ 1,965
Pinal AMA					
Beginning Fund Balance	$ 3	$ 12	$ 73	$ 6	$ 5
Revenue	60	61	59	124	180
Water Purchases	-	-	-	-	-
CAP LTSC Purchases	(52)	-	(128)	(126)	(180)
Interest Income	1	-	2	1	1
Ending Fund Balance	$ 12	$ 73	$ 6	$ 5	$ 6
Tucson AMA					
Beginning Fund Balance	$ 32	$ 244	$ 484	$ 13	$ 6
Revenue	364	235	284	321	330
Water Purchases	-	-	-	-	-
CAP LTSC Purchases	(153)	-	-	-	-
I&WR LTSC Purchases	-	-	(758)	(335)	(333)
Interest Income	1	5	3	7	7
Ending Fund Balance	$ 244	$ 484	$ 13	$ 6	$ 10
Total - All AMAs					
Beginning Fund Balance	$ 638	$ 1,446	$ 4,951	$ 114	$ 808
Revenue	3,517	3,458	3,387	3,650	4,924
Water/LTSC Purchases	(102)	-	-	-	-
CAP LTSC Purchases	(2,625)	-	(7,507)	(2,664)	(3,466)
LTSC transfers to I&WR	-	-	(758)	(335)	(333)
Interest Income	18	47	41	43	48
Ending Fund Balance	$ 1,446	$ 4,951	$ 114	$ 808	$ 1,981

Supplemental Water Account

The Supplemental Water account was established as part of a settlement of water right claims by the Ak-Chin Indian Tribe against the federal government. In August 1985, the Board approved participation in the fund which was established pursuant to Section §48-3715.01 of the Arizona Revised Statutes (ARS). In September 1985, the trust fund was established with the federal government and CAWCD each contributing $1,000,000 to the fund.

The purpose of the trust fund was for acquisition or conservation of water for use in central Arizona to supplement CAP water supplies in years when water supplies from the CAP are insufficient to meet the delivery schedules of non-Indian M&I users.

The District is empowered to direct the expenditure of the trust funds in accordance with the provisions of a trust agreement. Funds held in this account will remain until the District needs to acquire or conserve water to supplement Colorado River supplies as established in the specific legislation.

Statements of Revenues, Expenses & Changes in Net Position

Supplemental Water Account

(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Other expenses	$ -	$ -	$ -	$ -	$ -
Total Operating Expenses	-	-	-	-	-
Non-operating Revenues/(Expenses)					
Interest income	118	154	392	234	240
Total Non-operating Revenues	118	154	392	234	240
Change in Net Position	118	154	392	234	240
Net Position at beginning of period	8,235	8,353	8,507	8,899	9,133
Net Position at end of period	$ 8,353	$ 8,507	$ 8,899	$ 9,133	$ 9,373

CAP Canal Near Milepost 260

Captive Insurance Fund

The CAWCD Insurance Company, Inc., the "Captive" is a tax exempt, wholly owned corporation formed in 2003 for the purpose of providing funds for payment of losses and claims in the lower layers of the CAWCD's property and casualty insurance. In 2012 health benefits were added to the Captive. The Captive is a single-parent (or pure) captive that insures risks of its owner (CAWCD) on a direct basis. The decision to form the Captive has served to reduce and stabilize the long-term cost of risk, insulating the district from the volatility often found in the traditional insurance market.

Because of the separate and unique business purpose of the Captive and the requirements for stand-alone reporting, CAWCD chose to account for the Captive in a separate fund. There are no FTEs in the Captive, rather the Risk Manager oversees the Captive and is part of the Finance & Administration management staff.

All operating revenues of the Captive come from the General Fund as premiums. Non-operating revenues (i.e., investment income) account for the interest earned on the capital contributions, loss reserves and revenues that have not been used for operating expenses.

Expenses are composed of underwriting expenses, incurred losses (including provision for future claims not reported), and general and administrative expenses (i.e., management fee, premium taxes, actuarial, legal, banking and audit fees.)

The State of Hawaii, where the Captive is incorporated and licensed to do business as a nonprofit captive insurance company, pursuant to Article 19 of Chapter 431 of the Hawaii Revised Statutes as amended, requires the Captive to have a minimum reserve of $2,250,000 plus an amount actuarially determined for prior and future losses.

Statements of Revenues, Expenses & Changes in Net Position
Captive Insurance Fund
(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Operating Revenues					
Reimbursements and other operating revenues	$ 8,848	$ 9,131	$ 10,125	$ 10,115	$ 10,733
Total Operating Revenues	8,848	9,131	10,125	10,115	10,733
Operating Expenses					
Other operating expenses					
Outside services	(171)	(207)	(253)	(252)	(257)
Other expenses	(8,696)	(11,319)	(9,500)	(9,159)	(9,128)
Total Operating Expenses	(8,867)	(11,526)	(9,753)	(9,411)	(9,385)
Net Operating Income/(Loss)	(19)	(2,395)	372	704	1,348
Non-operating Revenues/(Expenses)					
Interest and other income	7	17	15	9	9
Total Non-operating Revenues/(Loss)	7	17	15	9	9
Change in Net Position	(12)	(2,378)	387	713	1,357
Net Position as beginning of period	4,168	4,156	1,778	2,165	2,878
Net Position at end of period	4,156	1,778	2,165	2,878	4,235

Capital Budget

The following pages include a capital budget summary for all capital improvement projects (CIP) in the 2020 / 2021 budget period, as well as for advisory projects. CIP budgeted amounts are shown for 2020 and 2021 and advisory expenditures are shown for following years. Capital equipment expenditures over the same period are included to complete the total capital budget. A schedule of capital equipment follows the capital budget summary. Individual CIP profiles are shown after the summary tables. Funding sources are indicated for each CIP profile.

CAP funds the capital budget on a pay-as-you-go basis from a major repair and replacement ("Big R") rate component, which is included in the Fixed Operation, Maintenance and Replacement (OM&R) water rate. CAP's strategy for reserve targets contemplates fluctuations in annual operating and capital expenditures. The "Big R" rate component is designed to reduce major fluctuations in annual rates through utilizing reserves to smooth year-to-year fluctuations in capital expenditures, eliminating the risk of rate shock.

Certain capital projects are not included in "Big R". Recharge projects are funded from property taxes less recharge capital charges received. Expenditures for other programs such as recovery and system use (increased capacity) are tracked outside of "Big R" and will be paid for by those customers realizing the benefit from those programs. Central Arizona Groundwater Replenishment District (CAGRD) may also have capital projects that are funded from appropriate CAGRD sources.

CAP utilizes a triple-bottom-line set of organizational principles that addresses operating, social, and environmental impacts. To the extent a CIP project reduces maintenance requirements, enhances safety or streamlines CAP operations, there may be cost savings or more often there may be cost avoidance. Costs are often not readily quantifiable as the impact is that staff are freed up to perform other duties or worker's compensation costs are lower. This efficiency is demonstrated through a relatively level number of planned full-time equivalents (FTEs) in the maintenance departments over the last several years.

Shown below are the capital expenditures that cover 2017 through 2021.

CAPITAL EXPENDITURES

($ Millions)	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Capital Improvement Program	$ 36.9	$ 31.7	$ 23.2	$ 41.7	$ 31.4
Capital Equipment	2.8	3.0	1.9	3.0	2.4
Totals	$ 39.7	$ 34.7	$ 25.1	$ 44.7	$ 33.8

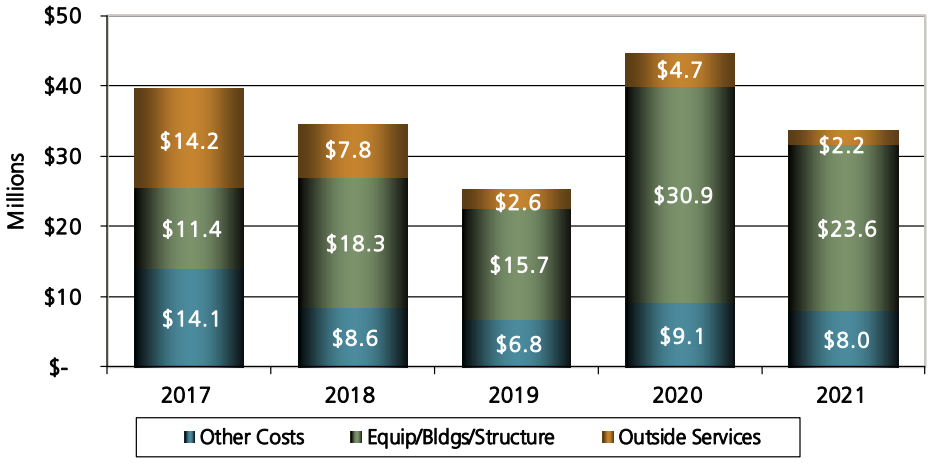
Picacho Pumping Plant

Capital Budget Summary

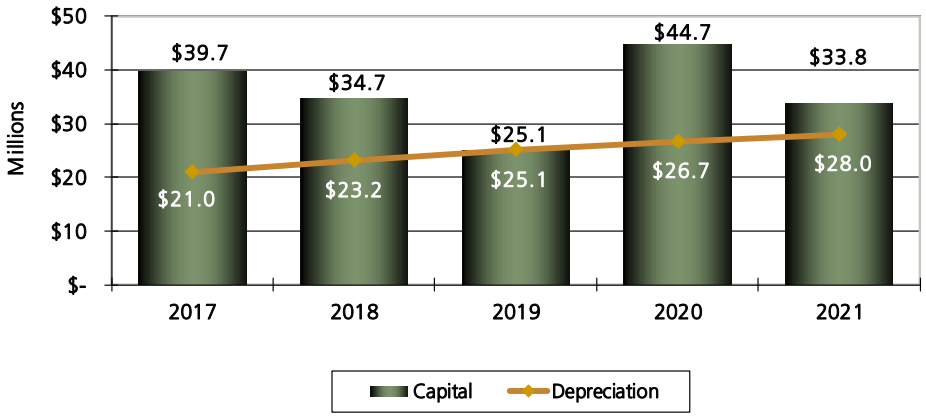
(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Expenditures					
Salaries and related costs	$ 5,044	$ 4,075	$ 3,201	$ 4,283	$ 3,784
Equipment, buildings, and structures	11,387	18,306	15,700	30,922	23,639
Other expenses					
Outside services	14,203	7,769	2,595	4,651	2,160
Materials, supplies & other expenses	556	483	392	374	287
Capitalized interest	3,330	-	-	-	-
Overhead expenses	5,156	4,116	3,237	4,465	3,943
Subtotal other expenses:	23,245	12,368	6,224	9,490	6,390
Total capital	$ 39,676	$ 34,749	$ 25,125	$ 44,695	$ 33,813
Less Reimbursement-Pima Mine Road	(3)	-	-	-	-
Net capital	$ 39,673	$ 34,749	$ 25,125	$ 44,695	$ 33,813

Total Capital Expenditures



Comparison of
Capital Expenditures and Depreciation



Capital Budget Summary

(Thousands)

	Total Project Cost	Pre-2020 Project Cost	2020 Budget	2021 Budget
CURRENT CAPITAL IMPROVEMENT PROGRAM (CIP) PROJECTS				
Backup Power System Replacements at Checks, Turnouts & Microwave Sites	$ 10,676	$ 3,587	$ 3,089	$ 2,684
Circuit Breakers and Compressed Air System Replacements at Mark Wilmer	6,435	5,030	1,381	24
Coffer Dam Design & Fabrication	1,888	-	-	811
Condition-Based Monitoring	10,697	8,250	1,627	820
Cooling Water Treatment at Mark Wilmer Pumping Plant	1,920	576	1,344	-
Covered Vehicle Parking at Multiple Sites	699	50	123	428
Discharge Valve Replacements at West Plants	1,783	16	924	843
Electromechanical Relay Replacements - Phase 1	7,950	7,321	629	-
Electromechanical Relay Replacements - Phase 2	11,952	-	2,589	2,615
Elevator System Replacements - Phase 2	7,561	857	2,843	2,453
Fire Protection CO2 Modification at Waddell	1,715	265	1,450	-
Fire Protection System Upgrades at Mark Wilmer Pumping Plant	4,745	-	1,040	3,687
Fire Protection System Upgrades at South Plants	11,400	6,863	4,537	-
Flowmeter Replacements at Turnouts	2,450	-	507	1,532
HVAC Replacement at Mark Wilmer Pumping Plant	2,137	-	668	1,448
Isolation Valves at Black Mountain and Snyder Hill Pumping Plants (Pilot)	165	-	165	-
Microwave System Replacement	2,064	-	1,260	804
Motor Exciter and Control Unit Replacements at Brady, Picacho & Red Rock	5,413	4,776	418	219
Motor Exciter and Control Unit Replacements at West Plants	15,034	2,330	5,624	4,982
Motor Rewind, Unit 6 at Mark Wilmer Pumping Plant	5,327	1,937	3,370	20
Network Refreshes 2020 / 2021	700	-	350	350
Potable Water Skid Replacements	1,903	-	903	1,000
Potable Water System Upgrade at Sandario Pumping Plant	677	230	447	-
Programmable Logic Controller (PLC) Replacements at Waddell	5,457	-	425	3,102
Sand Filter System Replacement at Hassayampa Pumping Plant	1,203	367	836	-
SCADA Replacement at Control Center	10,271	-	533	686
Sewage System Replacement at Mark Wilmer Pumping Plant	658	-	6	171
Siphon Stop Logs at Cunningham Wash, Gila River & Santa Cruz River Siphons	2,445	1,982	463	-
Sump Pump Water Level Controls at All Pumping Plants	2,010	353	1,104	553
Switchyard Bus Duct Replacement at Waddell	375	-	10	365
Switchyard Security Hardening at Delaney	482	-	-	482
Transformer Replacement at McCullough	8,159	1,970	1,063	1,063
Transmission Line Valencia to Black Mountain	1,785	-	1,785	-
Windows Server Refreshes 2020 / 2021	450	-	225	225
Current CIP Projects - Subtotals			**$ 41,738**	**$ 31,367**
ADVISORY CIP PROJECTS (POST-2021)				
Air Cooling Replacements at Warehouse, Shop & Fleet	$ 4,200	$ -	$ -	$ -
Building Access Modifications	202	-	-	-
Cathodic Protection Anode Bed Replacement	3,000	-	-	-
Circuit Breaker Compressed-Air System Replacement at Hassayampa PP	2,100	-	-	-
Communication Cable Replacement Project, Phase 6	7,150	-	-	-
Covered Parking Structures, Twin Peaks and Red Rock Pumping Plants	500	-	-	-
Document Management	3,200	-	-	-
Elevator Replacement Phase 3 at Headquarters	1,600	-	-	-
Engineering Mini-Projects	5,000	-	-	-
Enterprise Resource (ERP) Hardware Refresh	2,400	-	-	-
Exciter Upgrades at Mark Wilmer Pumping Plant	2,500	-	-	-
Fire Protection at South Plants Phase 2 (TWP, SAN, BRW, SXV)	8,250	-	-	-
GIS Air Compressor System Replacement at Waddell	125	-	-	-
HVAC Unit Replacements at Building 2	2,050	-	-	-
Isolation Valves at Black Mountain & Snyder Hill (Construction phase)	1,100	-	-	-
Modify Storage Building & Install Jib Crane at Red Rock Pumping Plant	381	-	-	-

Capital Budget Summary

(Thousands)

	2022 Advisory	2023 Advisory	2024 Advisory	2025 Advisory	Balance
CURRENT CAPITAL IMPROVEMENT PROGRAM (CIP) PROJECTS					
Backup Power System Replacements at Checks, Turnouts & Microwave Sites	$ 1,316	$ -	$ -	$ -	$ -
Circuit Breakers and Compressed Air System Replacements at Mark Wilmer	-	-	-	-	-
Coffer Dam Design & Fabrication	1,077	-	-	-	-
Condition-Based Monitoring	-	-	-	-	-
Cooling Water Treatment at Mark Wilmer Pumping Plant	-	-	-	-	-
Covered Vehicle Parking at Multiple Sites	98	-	-	-	-
Discharge Valve Replacements at West Plants	-	-	-	-	-
Electromechanical Relay Replacements - Phase 1	-	-	-	-	-
Electromechanical Relay Replacements - Phase 2	2,550	2,588	1,610	-	-
Elevator System Replacements - Phase 2	1,408	-	-	-	-
Fire Protection CO2 Modification at Waddell	-	-	-	-	-
Fire Protection System Upgrades at Mark Wilmer Pumping Plant	18	-	-	-	-
Fire Protection System Upgrades at South Plants	-	-	-	-	-
Flowmeter Replacements at Turnouts	411	-	-	-	-
HVAC Replacement at Mark Wilmer Pumping Plant	21	-	-	-	-
Isolation Valves at Black Mountain and Snyder Hill Pumping Plants (Pilot)	-	-	-	-	-
Microwave System Replacement	-	-	-	-	-
Motor Exciter and Control Unit Replacements at Brady, Picacho & Red Rock	-	-	-	-	-
Motor Exciter and Control Unit Replacements at West Plants	2,098	-	-	-	-
Motor Rewind, Unit 6 at Mark Wilmer Pumping Plant	-	-	-	-	-
Network Refreshes 2020 / 2021	-	-	-	-	-
Potable Water Skid Replacements	-	-	-	-	-
Potable Water System Upgrade at Sandario Pumping Plant	-	-	-	-	-
Programmable Logic Controller (PLC) Replacements at Waddell	1,930	-	-	-	-
Sand Filter System Replacement at Hassayampa Pumping Plant	-	-	-	-	-
SCADA Replacement at Control Center	2,981	2,998	3,016	57	-
Sewage System Replacement at Mark Wilmer Pumping Plant	481	-	-	-	-
Siphon Stop Logs at Cunningham Wash, Gila River & Santa Cruz River Siphons	-	-	-	-	-
Sump Pump Water Level Controls at All Pumping Plants	-	-	-	-	-
Switchyard Bus Duct Replacement at Waddell	-	-	-	-	-
Switchyard Security Hardening at Delaney	-	-	-	-	-
Transformer Replacement at McCullough	2,063	2,000	-	-	-
Transmission Line Valencia to Black Mountain	-	-	-	-	-
Windows Server Refreshes 2020 / 2021	-	-	-	-	-
Current CIP Projects - Subtotals	**$ 16,452**	**$ 7,586**	**$ 4,626**	**$ 57**	
ADVISORY CIP PROJECTS (POST-2021)					
Air Cooling Replacements at Warehouse, Shop & Fleet	$ 700	$ 3,400	$ 100	$ -	$ -
Building Access Modifications	202	-	-	-	-
Cathodic Protection Anode Bed Replacement	-	-	1,500	1,500	-
Circuit Breaker Compressed-Air System Replacement at Hassayampa PP	100	1,000	1,000	-	-
Communication Cable Replacement Project, Phase 6	650	4,500	2,000	-	-
Covered Parking Structures, Twin Peaks and Red Rock Pumping Plants	250	250	-	-	-
Document Management	-	-	1,600	1,600	-
Elevator Replacement Phase 3 at Headquarters	500	1,100	-	-	-
Engineering Mini-Projects	500	1,000	1,500	2,000	-
Enterprise Resource (ERP) Hardware Refresh	1,200	-	-	-	1,200
Exciter Upgrades at Mark Wilmer Pumping Plant	-	-	1,250	1,250	-
Fire Protection at South Plants Phase 2 (TWP, SAN, BRW, SXV)	750	4,000	3,500	-	-
GIS Air Compressor System Replacement at Waddell	125	-	-	-	-
HVAC Unit Replacements at Building 2	-	-	300	1,750	-
Isolation Valves at Black Mountain & Snyder Hill (Construction phase)	1,100	-	-	-	-
Modify Storage Building & Install Jib Crane at Red Rock Pumping Plant	381	-	-	-	-

Capital Budget Summary

(Thousands)

	Total Project Cost	Pre-2020 Project Cost	2020 Budget	2021 Budget
ADVISORY CIP PROJECTS (POST-2021) - Continued				
Motor Exciter Replacements-Twin Peaks, Sandario, Snyder Hill & Black Mountain	6,200	-	-	-
Motor Rewinds	4,000	-	-	-
Multi-Site Security System Replacement	5,250	-	-	-
Multi-Use Building at Bouse Hills PP maintenance yard	650	-	-	-
Network Refresh and Wide Area Network (WAN) at Headquarters	3,200	-	-	-
Programmable Logic Controller (PLC) I/O Optimization	1,500	-	-	-
Recovery Projects	4,000	-	-	-
Roof Handrail Fall Protection	2,075	-	-	-
SCADA Server Room Adaptation/Modification	400	-	-	-
Server Environment Refresh	1,975	-	-	-
Station Service Battery Upgrades, Multiple Sites	400	-	-	-
Storage/Backup Systems Refresh	3,600	-	-	-
Switchyard Bus Duct Replacement at Waddell (Construction phase)	2,800	-	-	-
Transmission - General Projects	4,000	-	-	-
Trashrakes	7,825	-	-	-
Turnout Portable Bypass Pumping	1,500	-	-	-
Unit Breaker Replacements	4,850	-	-	-
UPS Backup System Replacement at Waddell	850	-	-	-
Advisory CIP Projects (Post-2021) - Subtotals		-	$ -	$ -
Capital Improvement Plan (CIP) - Totals			**$ 41,738**	**$ 31,367**
CAPITAL EQUIPMENT				
Floor Lift Addition TFO			$ -	$ -
Automatic Gate Pinal Field Office			-	-
VoIP & Collaboration Hardware/Enhancements			-	-
Computer Equipment & Software			60	35
Field & Communications Equipment			2,216	1,893
Vehicles			681	518
Capital Equipment - Totals			**$ 2,957**	**$ 2,446**
CAPITAL BUDGET - TOTALS			**$ 44,695**	**$ 33,813**

CAPITAL BUDGET SUMMARY

(Thousands)

	2022 Advisory	2023 Advisory	2024 Advisory	2025 Advisory	Balance
ADVISORY CIP PROJECTS (POST-2021) - Continued					
Motor Exciter Replacements-Twin Peaks, Sandario, Snyder Hill & Black Mountain	1,550	1,550	1,550	1,550	-
Motor Rewinds	-	-	2,000	2,000	-
Multi-Site Security System Replacement	-	-	250	5,000	-
Multi-Use Building at Bouse Hills PP maintenance yard	650	-	-	-	-
Network Refresh and Wide Area Network (WAN) at Headquarters	200	200	200	200	2,400
Programmable Logic Controller (PLC) I/O Optimization	-	-	750	750	-
Recovery Projects	1,000	1,000	1,000	1,000	-
Roof Handrail Fall Protection	350	1,725	-	-	-
SCADA Server Room Adaptation/Modification	200	-	-	-	200
Server Environment Refresh	225	350	350	350	700
Station Service Battery Upgrades, Multiple Sites	-	-	200	200	-
Storage/Backup Systems Refresh	-	1,800	-	-	1,800
Switchyard Bus Duct Replacement at Waddell (Construction phase)	2,700	100	-	-	-
Transmission - General Projects	1,000	1,000	1,000	1,000	-
Trashrakes	900	1,825	3,000	2,100	-
Turnout Portable Bypass Pumping	-	-	750	750	-
Unit Breaker Replacements	400	3,000	1,150	300	-
UPS Backup System Replacement at Waddell	-	250	600	-	-
Advisory CIP Projects (Post-2021) - Subtotals	**$ 15,633**	**$ 28,050**	**$ 25,550**	**$ 23,300**	
Capital Improvement Plan (CIP) - Totals	**$ 32,085**	**$ 35,636**	**$ 30,176**	**$ 23,357**	
CAPITAL EQUIPMENT					
Floor Lift Addition TFO	$ 117	$ -	$ -	$ -	$ -
Automatic Gate Pinal Field Office	116	-	-	-	-
VoIP & Collaboration Hardware/Enhancements	50	230	50	50	-
Computer Equipment & Software	1,700	750	1,500	500	-
Field & Communications Equipment	1,591	1,639	1,688	1,739	-
Vehicles	1,167	1,202	1,238	1,275	-
Capital Equipment - Totals	**$ 4,741**	**$ 3,821**	**$ 4,476**	**$ 3,564**	
CAPITAL BUDGET - TOTALS	**$ 36,826**	**$ 39,457**	**$ 34,652**	**$ 26,921**	

Capital Equipment Summary

(Thousands)

	2020 Budget	2021 Budget	2022 Advisory	2023 Advisory	2024 Advisory	2025 Advisory
REPLACEMENTS						
Agent Vehicle	$ 50	$ -	$ -	$ -	$ -	$ -
Air Compressor	-	142	-	-	-	-
Automated Carwash	130	-	-	-	-	-
Battery System	60	-	-	-	-	-
Butterfly Valve	75	75	-	-	-	-
Copier	-	35	-	-	-	-
Dump Truck	150	300	-	-	-	-
Dust Collector	115	-	-	-	-	-
Forklift, with scale and barrel dump	35	-	-	-	-	-
Front-Gate Arm System	85	-	-	-	-	-
Loader	-	160	-	-	-	-
Manlift	25	25	-	-	-	-
Relay Test Set	50	50	-	-	-	-
Shear, Sheet Metal	65	-	-	-	-	-
Sump Pump	36	36	-	-	-	-
Trailer, Flat-bed	105	70	-	-	-	-
Trash Pump	120	80	-	-	-	-
Trucks, 1/2-Ton (12)	204	110	-	-	-	-
Trucks, 3/4-Ton (9)	137	220	-	-	-	-
Truck, 1-Ton	-	46	-	-	-	-
Trucks with 10,000-lb. crane	160	165	-	-	-	-
Trucks with utility bed (2)	85	69	-	-	-	-
Trucks, Other (7)	178	73	-	-	-	-
Unit Breakers	125	125	-	-	-	-
UPS System	42	-	-	-	-	-
Water Pump, Ultra-High Pressure	195	-	-	-	-	-
Weed Spray beds	80	160	-	-	-	-
Replacements - Totals	**$ 2,307**	**$ 1,941**	**$ -**	**$ -**	**$ -**	**$ -**
ADDITIONS						
CAT, Tracked-skid steer	-	35	-	-	-	-
CMM Inspection Equipment, Portable	-	125	-	-	-	-
CNC Lathe	125	-	-	-	-	-
Forklift, 10,000-lb.	30	-	-	-	-	-
Generators (25-800 KVA)	177	45	-	-	-	-
Industrial Vacuum	-	150	-	-	-	-
Motor Tester	60	-	-	-	-	-
Omicron CPC-1000 Accessories	50	50	-	-	-	-
Test Equipment (SF6 gas)	43	-	-	-	-	-
Transformer Monitor	53	50	-	-	-	-
Truck, 1/2-Ton	28	-	-	-	-	-
UAV Drone with Thermal Imaging Camera	25	-	-	-	-	-
Vac Trailer	-	50	-	-	-	-
Video Scope	60	-	-	-	-	-
Additions - Totals	**$ 650**	**$ 505**	**$ -**	**$ -**	**$ -**	**$ -**
POST-2021						
Automatic Gate Pinal Field Office	-	-	116	-	-	-
Floor Lift Addition Tucson Field Office	-	-	117	-	-	-
VoIP & Collaboration Hardware/Enhancements	-	-	50	230	50	50
Computer Equipment & Software	-	-	1,700	750	1,500	500
Field & Communications Equipment	-	-	1,591	1,639	1,688	1,739
Vehicles	-	-	1,167	1,202	1,238	1,275
Post-2021 - Totals	**$ -**	**$ -**	**$ 4,741**	**$ 3,821**	**$ 4,476**	**$ 3,564**
CAPITAL EQUIPMENT - TOTALS	**$ 2,957**	**$ 2,446**	**$ 4,741**	**$ 3,821**	**$ 4,476**	**$ 3,564**

BACKUP POWER SYSTEM REPLACEMENTS AT CHECKS, TURNOUTS & MICROWAVE SITES

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610452
START DATE: 2nd Quarter 2015
COMPLETION DATE: 3rd Quarter 2022
TOTAL PROJECT COST: $10,676,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 10,676	$ 3,587	$ 3,089	$ 2,684	$ 1,316	$ -	$ -	$ -	$ -

Description: This project addresses CAP's need for the replacement of backup power systems at eight mountain-top microwave sites, 33 turnouts and over 30 check structures. These sites currently utilize various direct current (DC) chargers and batteries for multiple voltages, ranging from 120 volts DC (VDC) to -48 VDC. The existing chargers are to be replaced with an integrated uninterruptible power supply (UPS) and DC power distribution system. This system incorporates all existing voltages and also consolidates the power system to 24 VDC. The new battery-charger system integrates voltages that are still in use. This project will also replace emergency backup generators and automatic transfer switches (ATS) at locations where existing equipment is beyond service life and requires high levels of corrective maintenance.

Since the previous budget was prepared, this project's scope has expanded to 48 turnouts, 39 check structures and 16 mountaintop sites, for a total of 103 units. Consistent with the broader scope, project cost has increased. Higher contract costs have also contributed to the project cost increase.

JUSTIFICATION: Replacing the existing UPS with an integrated 24 VDC power distribution system allows for remote monitoring, testing capabilities and a reduction of the number of required replacement parts system-wide. Additionally, the UPS replacement project decreases the amount of labor required for preventive maintenance. Currently at most sites, generators and ATS's are beyond their service life and require a high level of corrective maintenance work to ensure continued operation.

OPERATING IMPACT: The integrated UPS and DC distribution system reduces ongoing operating costs by decreasing the amount of labor required for preventative maintenance. Reliable backup power systems are necessary for continued, uninterrupted deliveries during power-failure events.

SOCIAL IMPACT: This project improves CAP's system reliability, which increases the reliability of customer water deliveries without interruptions.

ENVIRONMENTAL IMPACT: The new integrated system creates an efficient use of energy.

CIRCUIT BREAKER & COMPRESSED-AIR SYSTEM REPLACEMENTS AT MARK WILMER PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610499
START DATE: 1st Quarter 2016
COMPLETION DATE: 1st Quarter 2021
TOTAL PROJECT COST: $6,435,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 6,435	$ 5,030	$ 1,381	$ 24	$ -	$ -	$ -	$ -	$ -

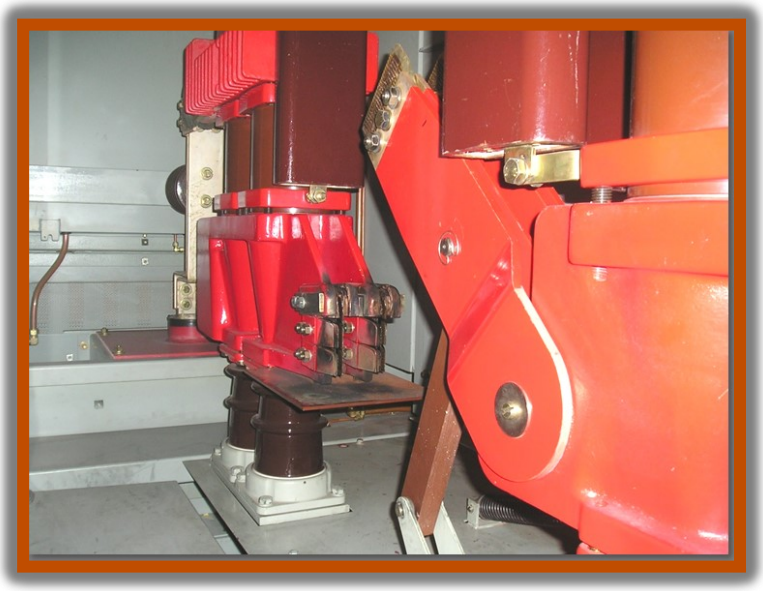
DESCRIPTION: This project replaces the single dedicated compressed-air system and air-blast circuit breakers for all six units at Mark Wilmer Pumping Plant.

JUSTIFICATION: Six main units at Mark Wilmer are switched by air-blast circuit breakers. The breakers are connected to a single dedicated "air-blast" circuit breaker compressed air system. This system provides the stored energy to manage the circuits and provides compressed air to each of the breakers to snuff arcing during operation. Reliability of both systems is critically important to the continued operation of the pump units at Mark Wilmer. These air-blast breakers are no longer manufactured. The breakers and associated disconnect switches include numerous components that have been reaching their end-of-life and that require a complex compressed-air system to function. Also, sourcing replacement parts and service is becoming increasingly difficult and time-consuming due to obsolescence.

OPERATING IMPACT: The outcome will be lower maintenance requirements and long-term availability of spare parts.

SOCIAL IMPACT: Improvements in employee safety from insulated switchgear include fault risk reduction and improved operator protection.

ENVIRONMENTAL IMPACT: SF6 is commonly used in switchgear applications and used at other CAP facilities. As a greenhouse gas, it is handled similarly to refrigerants. The new equipment will have no environmental impact.



Capital Improvement Program

COFFER DAM DESIGN & FABRICATION

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610322
START DATE: 1st Quarter 2021
COMPLETION DATE: 4th Quarter 2022
TOTAL PROJECT COST: $1,888,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,888	$ -	$ -	$ 811	$ 1,077	$ -	$ -	$ -	$ -

DESCRIPTION:

Aqueduct Maintenance does not currently have a method of repairing broken middle and lower panels on the canal without a full dewatering of the canal pool. This project was created to provide a tool to allow the damaged middle and lower panels to be repaired without full dewatering. The project plan calls for delivery of two 100-foot cofferdams — one sized for the smaller southern sections and the other for the larger west sections of the canal.

A Construction Manager at Risk (CMAR) will be selected early in the design phase and will participate in workshops, preliminary design, and will prepare mock-ups or proof-of-concept of the proposed design. Preliminary work will be to construct full-sized pieces in accordance with the preliminary design direction, which allows for evaluation of different design options.

Precast sections from the mock-up will be used and the full scale effort will build more of the dam segments. The full-scale construction will be to provide additional longitudinal segments to provide a 100-foot cofferdam for CAP use. A smaller version will be built for the south and a larger one for the west. This approach will be done in parallel with the west and south sections being designed and prototyped separate.

Due to the width of the invert for the south section and the added weight and difficulty in working with the larger west segments, having a south dam and a west dam was determined to be the best approach. This will also minimize time to deploy due to the location that the dam segments would be stored.

JUSTIFICATION: The cofferdam system is required to allow repair of damaged lower panels without a full dewatering of the canal pool.

OPERATING IMPACT: Construction of the cofferdams reduces risk to the canal system by allowing repairs to be completed while the canal remains in service. Cofferdams will also improve the operating efficiency by removing the need to dewater the canal to make repairs, allowing the canal to be operated more efficiently and without impacts to operations or deliveries to customers.

SOCIAL IMPACT: Repairs can be completed on canal sections with no customer impact, allowing CAP to deliver water more efficiently and reliably.

ENVIRONMENTAL IMPACT: No impacts are anticipated. Completed cofferdams will allow the canal to be repaired when damage is observed and minimizes risk to the environment from water loss and any potential soil or vegetation damage.

CONDITION-BASED MONITORING

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610317
START DATE: 1st Quarter 2012
COMPLETION DATE: 3rd Quarter 2021
TOTAL PROJECT COST: $10,697,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 10,697	$ 8,250	$ 1,627	$ 820	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Condition-Based Monitoring (CBM) is defined as an equipment-maintenance strategy that assesses the state of major equipment for potential failures and identifies actions to prevent any such failures. CBM's original project scope as identified in 2012 was to install monitoring equipment across all 14 pump plants and one pump-generation plant (a total of 109 pump units) using three diagnostic measures: vibration analysis (109 units), motor analysis (109 units) and conductor-insulation testing (37 units among the South plants).

At the end of 2018, 10 of the 15 pumping plants' associated CBM work was completed. Remaining work involves design and construction (various stages of completion) at Twin Peaks, Sandario, Brawley and San Xavier Pumping Plants, and Waddell Pump / Generating Plant.

JUSTIFICATION: CBM aligns with CAP's Maintenance Excellence effort and facilitates improved systems management and identification of potential failures of all CAP pump units, minimizing the risk of unscheduled outages.

OPERATING IMPACT: Pump and motor units are essential to water conveyance. CBM improves the operational reliability of all pump units to maintain water deliveries and reduces the likelihood of unplanned and expensive unit failures.

SOCIAL IMPACT: Minimizing outage risk increases CAP's ability to provide customers with water deliveries as scheduled.

ENVIRONMENTAL IMPACT: Improved monitoring of the CAP system facilitates more efficient system operation and maintenance, which helps to reduce unnecessary power use due to malfunctioning equipment.

COOLING WATER TREATMENT AT MARK WILMER PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610515
START DATE: 4th Quarter 2018
COMPLETION DATE: 4th Quarter 2020
TOTAL PROJECT COST: $1,920,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,920	$ 576	$ 1,344	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: This project includes design and installation of a centralized chemical injection system capable of delivering copper sulfate, or a close substitute, to the cooling system for all six units at Mark Wilmer Pumping Plant. As of April 2019, project design was 30 percent complete.

Biofouling of critical water-delivery systems has increased in recent years, since quagga mussels, an invasive species, were first detected in the Colorado River in 2008. Additionally, other freshwater invertebrates such as bryozoans and colonial hydroids have been identified as potential system hazards if not mitigated.

An ultraviolet (UV) system was initially evaluated as cooling-water treatment method. However, staff determined the superior treatment method to be coffer-sulfate injection. A pilot project at one of the six Mark Wilmer Plant units was established and monthly data analyzed.

JUSTIFICATION: When microorganisms or quagga mussels restrict water flow at the heat exchangers to the main units, the units will trip on high temperature. A trip is detrimental to CAP operations and creates additional maintenance expense. Units must be completely shut down before heat exchangers are removed and all tubes and orifices must be must be thoroughly power-washed. Installation of a chemical treatment system will reduce or eliminate nearly all biological organisms that may create biofouling issues.

OPERATING IMPACT: Reduced cost through lower maintenance requirements.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: Copper sulfate solution must have backflow controls and proper dosages in order to prevent release of solution into the pumping plant forebay, which will minimize or eliminate any environmental impacts.

COVERED VEHICLE PARKING AT MULTIPLE SITES

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610431
START DATE: 4th Quarter 2019
COMPLETION DATE: 2nd Quarter 2022
TOTAL PROJECT COST: $699,000
Funding **SOURCE:** "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 699	$ 50	$ 123	$ 428	$ 98	$ -	$ -	$ -	$ -

Description: Covered parking will be constructed for 34 parking spots at the following five sites:

- Bouse Maintenance Yard (8 spots)
- Hassayampa Pumping Plant (8 spots)
- Pinal Field Office (8 spots)
- Tucson Field Office (4 spots)
- Twin Peaks Pumping Plant (6 spots)

The project will be comprised of internal design work to be performed over three months. Design will be similar to covered parking structures at CAP Headquarters. A low-bid construction contract will be let for steel procurement and covered-structure installation of five structures covering the 34 spots. Impact on CAP resources is minimal.

JUSTIFICATION: Covered parking is the standard offering at most CAP facilities. This project provides some covered parking at five sites, some of which presently have no covered parking. A survey was conducted, at the request of the Project Steering Committee, of similar public agencies to determine their practices of providing covered parking. Maricopa County Flood Control District, Arizona Department of Transportation (ADOT), City of Phoenix, Salt River Project (SRP) and Arizona Public Service (APS) were among those public agencies surveyed. All agencies offer covered parking, and field site covered parking is provided for APS, ADOT and SRP, additionally.

OPERATING IMPACT: No to minimal impacts are anticipated.

SOCIAL IMPACT: Improved work environment and facility site for employees, visitors and contractors.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

DISCHARGE VALVES AT WEST PLANTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610326
START DATE: 3rd Quarter 2019
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $1,783,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,783	$ 16	$ 924	$ 843	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: This project is a continuation of discharge valve replacement projects in the 2018 / 2019 budget period for Little Harquahala and Bouse Hills Pumping Plants. It was previously determined that seven new discharge valves and hydraulic actuators for the two plants would be required ahead of those valves reaching the end of their service lives. Val-Matic was chosen due to a strong quality assurance program and favorable customer recommendations for the large valves.

Staff identified additional existing discharge valves at multiple West plants based on a combination of condition assessments and issues related to sealing and non-repeatability-of-disc at seal-to-seat interface. The existing Allis-Chalmers/Rodney Hunt Streamseal butterfly valves do not provide the level of sealing reliability desired.

The project will replace all 30 of the West discharge valves with the new style over multiple budget cycles. Eight large-diameter valves are identified to be replaced in this budget period. Proposed replacement valves are American Water Works Association (AWWA) butterfly valves with mechanically-retained seats, which facilitates field repair. The valves will be supplied with hydraulic actuators designed to function with the existing CAP Hydraulic Accumulator systems at the pumping plants. The hydraulic actuators are also designed to comply with CAP lockout-and-tag out program requirements. The actuator includes a lockable pin that will hold the valve in the closed position for establishing clearances during outages by eliminating hazardous energy.

JUSTIFICATION: By design, seal replacements on these valves are intrusive and may result in other premature maintenance-induced failures. In addition, poor sealing performance leads to a number of impacts, including the postponement of critical fifth-year pump project maintenance as the pump unit cannot be fully dewatered due to excessive leakage through the discharge valve. Additionally, seal leakage left unrepaired for extensive timeframes can also cause significant erosion damage to the valve body and seat, which ultimately reduces lifecycle. Of the 30 West plant valves, 70 percent have previously been rebuilt. Rebuilt valves have a decreased lifecycle due to installed sleeves and reduced bearing clearances.

OPERATING IMPACT: Significant maintenance and labor cost savings may be realized from this valve-replacement project, due to the high percentage of existing rebuilt valves that have greater maintenance requirements. Installation of valve replacements will be scheduled during normal West plant outage windows.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

Capital Improvement Program

ELECTROMECHANICAL RELAY REPLACEMENTS PHASE 1

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610494
START DATE: 1st Quarter 2016
COMPLETION DATE: 2nd Quarter 2020
TOTAL PROJECT COST: $7,950,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 7,950	$ 7,321	$ 629	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Electromechanical relays have a limited life span of 30 years under good conditions and proper maintenance. Digital relays will be installed to replace electromechanical and solid state devices at all CAP pumping plant locations. The new relays will have Ethernet network connectivity to provide additional functionality and remote data collection for configuration control, fault analysis and reliability analysis.

In 2018, the EM Relay Project Team selected a design-build (DB) contractor for the design, fabrication, installation of transformers and unit relays at Brady, Red Rock and Picacho Pumping Plants. Design work for this first-phase project is 90 percent complete as of April 2019. Construction is 65 percent complete as of the same date.

JUSTIFICATION: If a relay were to fail to operate during a fault condition, the result could be major damage to critical water delivery equipment such as motors, transformers and cables. Relays should be replaced prior to the end of their useful life.

OPERATING IMPACT: Installing new relays reduces maintenance costs, increases diagnostic capabilities and provides more complete delivery equipment protection.

SOCIAL IMPACT: Reduced risk of outage, which increases CAP's reliability to deliver water.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

Capital Improvement Program

ELECTROMECHANICAL RELAY REPLACEMENTS PHASE 2

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610333
START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2024
TOTAL PROJECT COST: $11,951,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 11,952	$ -	$ 2,589	$ 2,615	$ 2,550	$ 2,588	$ 1,610	$ -	$ -

DESCRIPTION: CAP pumping plants use a variety of protective relays for large electrical-system protection, including electromechanical (EM) relays, microprocessor base relays and solid state relays. CAP currently has some form of protective relay from several of the major equipment vendors. EM relays are reliable and effective, but have a maximum service life of about 30 years. While EM relays are still made, they are becoming more expensive and limited. Many utilities are making the switch to digital relays to circumvent the challenges of managing performance and reliability for multiple generations of in-service relays.

Phase 2 work will replace EM relays with digital relays on transformers and units at Waddell Pump / Generating Plant and the South Plants (Twin Peaks, Sandario, Brawley, San Xavier, Snyder Hills and Black Mountain Pumping Plants). The project also includes integration of relay communications and exciters into the electrical system.

JUSTIFICATION: The EM relays should be replaced prior to the end of their useful life and before they fail completely. EM failures provide no advance indication If an EM relay were to fail to operate during a fault condition, the result could be major damage to critical pumping plant equipment such as motors, transformers, and cables. New relays will also be able to provide event reports, waveform capture, and data-logging, which have the potential to greatly reduce troubleshooting and equipment downtime.

OPERATING IMPACT: Installing new relays will reduce maintenance costs, increase diagnostic capabilities and provide more complete delivery equipment protection.

SOCIAL IMPACT: Replacement relays will minimize the chance of failure, which increases CAP's reliability to deliver water.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

Capital Improvement Program

ELEVATOR SYSTEM REPLACEMENTS PHASE 2

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610512
START DATE: 1st Quarter 2018
COMPLETION DATE: 4th Quarter 2022
TOTAL PROJECT COST: $7,561,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 7,561	$ 857	$ 2,843	$ 2,453	$ 1,408	$ -	$ -	$ -	$ -

DESCRIPTION: A priority list of 15 elevators was previously established and the top five elevators were upgraded between 2014 and 2016. This phase addresses the seven elevators at Mark Wilmer, Bouse Hills, Hassayampa, Red Rock, Brawley and San Xavier Pumping Plants and Waddell Pump / Generating Plant. Existing elevators are typically 20 years old. This project is currently in the design phase of a design-build contract. Installation is scheduled for early 2020, beginning at Mark Wilmer Pumping Plant.

JUSTIFICATION: The elevators are essential for safely transporting materials and personnel to and from different levels within the facilities. Condition of the elevators is insufficient for reliability requirements.

OPERATING IMPACT: Replacement of the elevator components in this project are expected to reduce the risk of elevator outages at the plants, decrease associated maintenance costs, and increase operational efficiency and reliability of the overall plant and delivery system.

SOCIAL IMPACT: Employees will require training on operation of the upgraded elevator controls within each plant. Upgrading the elevator control components minimizes downtime and unplanned outages due to elevator failures, which creates a safer and more reliable work environment.

ENVIRONMENTAL IMPACT: New operating equipment creates a more efficient system that reduces energy usage.

FIRE PROTECTION CO_2 MODIFICATION AT WADDELL PUMP / GENERATION PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610510
START DATE: 1st Quarter 2018
COMPLETION DATE: 4th Quarter 2020
TOTAL PROJECT COST: $1,715,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,715	$ 265	$ 1,450	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: The four pump / generator units have been protected by high-pressure CO_2 fire suppression systems, which now consist of multiple nonfunctioning or obsolete components. The current system does not comply with National Fire Protection Association NFPA-12 standards. This project replaces all mechanical and electrical components of the existing system. Carbon dioxide cylinders will be replaced with nitrogen and water tanks. A network gateway/ annunciator panel and ONYX workstation will be installed so the system communicates and is monitored by the ONYX master station at CAP Headquarters.

JUSTIFICATION: The existing system poses a hazard to plant personnel and exposes major equipment to additional damage due to a malfunctioning or nonfunctioning fire suppression system. CAP's fire protection philosophy requires that high-cost equipment be properly protected from fire and related risks.

OPERATING IMPACT: Favorable impacts include reduced risk of injury or fatality from a more reliable protection system, reduced maintenance costs, and increased reliability of general fire suppression systems.

SOCIAL IMPACT: Properly functioning fire protection systems enhance a safety culture that is advocated by CAP and plant operators and enhance compliance with CAP's Voluntary Protection Plan.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

Capital Improvement Program

FIRE PROTECTION SYSTEM UPGRADES AT MARK WILMER PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610332
START DATE: 1st Quarter 2020
COMPLETION DATE: 1st Quarter 2022
TOTAL PROJECT COST: $4,745,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 4,745	$ -	$ 1,040	$ 3,687	$ 18	$ -	$ -	$ -	$ -

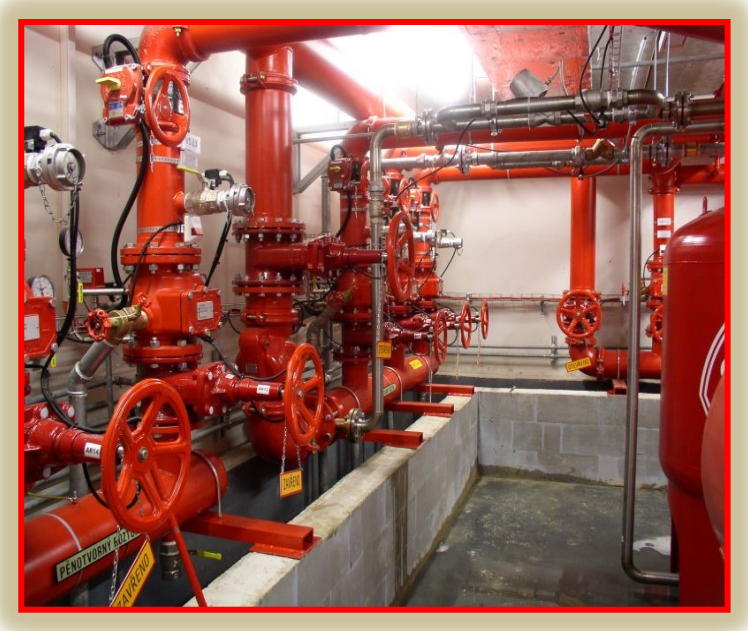
DESCRIPTION: Multiple fire protection systems at Mark Wilmer Pumping Plant are either obsolete, failing or inappropriate for the protection area. A previous system upgrade occurred in 1999-2000, which installed new fire alarm panels and extended sprinkler coverage area, among other features. Personnel occupancy patterns have changed, requiring a reevaluation of existing system viability and vulnerabilities. This project will upgrade all plant fire protection systems, including sprinkler system, fire alarm, stairwell pressurization, motor room carbon dioxide, control room fire suppression, dampers and pump/switchyard suppression systems.

JUSTIFICATION: The current system does not readily communicate with the Notifier ONYX workstations located across the aqueduct system. New suppression systems will be installed in Mark Wilmer Pumping Plant that will improve fire protection safety.

OPERATING IMPACT: Favorable impacts include reduced risk of injury or fatality from a more reliable protection system, reduced maintenance costs, and increased reliability of general fire suppression systems.

SOCIAL IMPACT: Properly functioning fire protection systems enhance a safety culture that is advocated by CAP and plant operators and enhance compliance with CAP's Voluntary Protection Plan.

ENVIRONMENTAL IMPACT: New systems will have environmental safeguards and ensure minimal environmental impact should a suppression event occur. Further, new fire protection equipment establishes a more energy-efficient system. A contractor will be responsible for extracting carbon dioxide. Canister returns to CAP Headquarters for reprocessing will be performed for electronic or wire waste.



FIRE PROTECTION SYSTEM UPGRADES AT SOUTH PLANTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610491
START DATE: 4th Quarter 2016
COMPLETION DATE: 4th Quarter 2020
TOTAL PROJECT COST: $11,400,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 11,400	$ 6,863	$ 4,537	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: This project consists of replacement of the fire protection systems at five of the South plants (Brady, Picacho, Red Rock, Black Mountain, and Snyder Hill), using a design-build contractor to complete the full fire protection system design for each of the plants. Final systems are to be networked to the ONYX system located at CAP Headquarters.

As of April 2019, the construction phase at Black Mountain and Snyder Hill plants is scheduled for 2020, with most construction to occur in the first half of the year. Construction at Brady and Red Rock plants is complete.

JUSTIFICATION: Safety and equipment reliability are high CAP priorities. Remote supervisory control will be added to the existing system, which already monitors Headquarters and the West plants.

OPERATING IMPACT: This remote-monitoring feature will increase control, decrease response time, and reduce travel to the plants. Other benefits include increased capability of detection and notification of a fire event and fewer repairs as a result of replacing degraded pumps.

SOCIAL IMPACT: Properly functioning fire protection systems enhance a safety culture that is advocated by CAP and plant operators and enhance compliance with CAP's Voluntary Protection Plan.

ENVIRONMENTAL IMPACT: New systems will have environmental safeguards and ensure minimal environmental impact should a suppression event occur. New fire protection equipment establishes a more energy-efficient system.

FLOWMETER REPLACEMENTS AT TURNOUTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610269
START DATE: 3rd Quarter 2020
COMPLETION DATE: 2nd Quarter 2022
TOTAL PROJECT COST: $2,450,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 2,450	$ -	$ 507	$ 1,532	$ 411	$ -	$ -	$ -	$ -

DESCRIPTION: There are 34 turnouts that remain equipped with Accusonic 7510/7510+ flowmeters across the aqueduct system. An interdisciplinary team will select a replacement flowmeter that is compatible with the current transducers. The new equipment will be a direct current (DC)-powered ultrasonic flowmeter with direct communication to the local programmable logic-controller (PLC) and with remote-access functionality and a minimum factory-tested accuracy of +/-0.5%.

Prior to the project kickoff, one or more test meters shall be installed, temporarily, at a functional turnout site for calibration and communication-protocols testing. A template package will be designed for removal of existing flowmeters, and replacement equipment will be integrated into the network, PLCs, and Supervisory Control & Data Acquisition (SCADA) system.

JUSTIFICATION: ADS Environmental Services, the manufacturer of the obsolescing Accusonic meters, continues to manufacture the transducers, which electronically measure water flow rates, but has discontinued parts replacement and support for the PLC. Failure of a flowmeter would take the site offline for a period of months to replace it with a newer meter and require additional time to design, order and install a PLC interface.

OPERATING IMPACT: A standardized meter replacement strategy allows CAP to minimize impact on operations.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

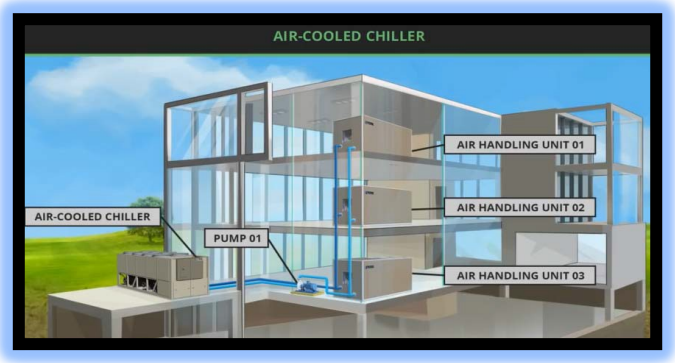
HVAC REPLACEMENT AT MARK WILMER PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610362
START DATE: 1st Quarter 2020
COMPLETION DATE: 2nd Quarter 2022
TOTAL PROJECT COST: $2,137,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 2,137	$ -	$ 668	$ 1,448	$ 21	$ -	$ -	$ -	$ -

DESCRIPTION: Mark Wilmer Pumping Plant is cooled by two water-cooled chillers with a nominal cooling capacity of 136 tons each. These chillers were installed in 2005 to replace those installed at the building's original construction. Condensers on the existing chillers reject heat from the building with cooling water drawn from nearby Bill Williams River. Source water contains large amounts of suspended solids, weeds, and salts which, over time, has resulted in corrosion and clogging of the condensers. During summer months, CAP personnel brush the condenser tubes on both chillers to remove accumulated debris, pieces of quagga mussels, and silt. Two new air-cooled chillers will be installed outdoors to replace the water-cooled chillers. Two chilled-water pumps will be installed in the Level 6 Mechanical Room, with removal of existing condenser pumps. The new air-cooled chillers will be installed in a 22x25-foot space in the rear (mountain side) parking area and mounted on a new concrete housekeeping pad. To minimize water leakage risk, any chilled water piping located outdoors, above grade, will require the pipe insulation to be protected from the weather with an aluminum jacket.



JUSTIFICATION: CAP personnel must brush the condenser tubes on both chillers to remove accumulated debris, which is mostly silt. The chiller condenser tubes contain "rifling" which is designed to increase efficiency, but with the Plant's limited condenser water filtration capability, silt accumulates in the tubes causing the chillers to trip on high head pressure built up from reduced heat-transfer effectiveness. The original steel chilled-water piping and insulation, together with the chilled-water isolation valves and air-handler coils (installed in the early 1980s) have reached the end of their useful life. The original chilled water pumps and condenser water pumps (also installed in the early 1980s) require replacement.

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OPERATING IMPACT: The costs are often not readily quantifiable as the impact is that staff are freed up to perform other duties or worker's compensation costs are lower.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: Refrigerant R-410A, which contains only fluorine, does not contribute to ozone depletion, and its use is becoming more widespread as ozone-depleting refrigerants like R-22 are phased out. Use of R-410A refrigerant is recommended. R-22 will be banned in the U.S. on January 1, 2020.

ISOLATION VALVES AT BLACK MOUNTAIN & SNYDER HILL (PILOT)

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610330
START DATE: 1st Quarter 2020
COMPLETION DATE: 1st Quarter 2020
TOTAL PROJECT COST: $165,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 165	$ -	$ 165	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: This project replaces the original suction, check and discharge valve types at Black Mountain and Snyder Hill Pumping Plants. While the butterfly valves have performed as expected, the associated check valves have had issues since installation. The check valves perform their main function of protecting the pumping units from reverse flow but are unable to function per the final hydraulic transient analysis, which requires a fast-closing, first-stage check-valve closing followed by a delayed, second-stage closing. The current valves and dampening system have been unable to slow the closure of the valve disk. This single-stage closure is causing a localized pressure surge on the downstream side of the discharge piping.

During a normal unit shutdown, the pump runs until the discharge butterfly valve is closed. Therefore, the potential for a check valve leak only applies to an emergency shutdown, unit trip or loss of plant power. After an emergency shutdown or trip, the discharge butterfly valve will still close in approximately 60 seconds and stop any reverse flow. The only potential situation for leakage over the long term is if the plant loses power. This would require plant personnel to manually close the discharge valves to prevent draining the discharge line back through the check valves. A pilot valve test at Black Mountain Pumping Plant showed that a nozzle-check valve has the ability to close even faster than a swing-check valve, eliminating the need for the second-stage closing. The advantage of nozzle-check valves is that they fully close, eliminating current concerns with leaking or spinning the pump backwards.

JUSTIFICATION: The check-valve rings are an acceptable short-term solution to the excessive pressure surges that take place upon emergency shutdowns or unit trips, but a long-term solution is required for plant reliability. If the existing check valves with rings are left in place, guard valves are necessary to allow Maintenance access to the pipeline.

OPERATING IMPACT: Reduced cost through lower maintenance requirements.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

Capital Improvement Program

MICROWAVE SYSTEM REPLACEMENT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610268
START DATE: 3rd Quarter 2020
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $2,064,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 2,064	$ -	$ 1,260	$ 804	$ -	$ -	$ -	$ -	$ -

DESCRIPTION:

CAP uses digital microwave radio to communicate telephone, computer data and telemetry information to and from geographically-isolated pumping plants. The present network maintained by Harris Constellation consists of 26 "hops" (12 backbones and 14 spurs) of microwave radios interconnecting pumping plants, mountaintop communications sites, and CAP Headquarters. These radios were installed 10 years ago in a phased deployment.

This project suggests the same approach for replacement. The new microwave radio system will upgrade the capacity across the entire network. The new system will be able to integrate advanced network monitoring services that provide expanded visibility and improved troubleshooting capabilities.

The scope of this project will include radio replacement of the existing Harris radios with a new, "best-in-class" radio system at 17 sites (12 backbones and 5 spurs). Antenna and waveguide replacements will occur at five sites along the system.

JUSTIFICATION:

The current system manufacturer, Aviat Networks, will no longer support the Harris Constellation radios, including no support for customer returns, repairs or technical coverage. A planned replacement will allow CAP to standardize its approach while minimally impacting operations.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

MOTOR EXCITER & CONTROL UNIT REPLACEMENTS AT BRADY, PICACHO & RED ROCK PUMPING PLANTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610420
START DATE: 1st Quarter 2012
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $5,413,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 5,413	$ 4,776	$ 418	$ 219	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: This project replaces the existing pump motor brushless exciters with brushless, three-phase, exciter generators and rotating exciter wheel. It replaces the existing exciter voltage regulator and protection relays with the integrated electronic exciter controllers that are utilized at Brawley and San Xavier Pumping Plants. The project scope is replacement of the static exciters with modern equivalents. The upgraded digital exciter system will also provide an excitation controller and convection cooled rectifier bride assembly. The excitation digital controller will provide voltage regulation, true RMS sensing, power factor control, dual-settings groups and additional features.

JUSTIFICATION: The exciters and controls are obsolete and failing, and are at the end of their operational life. The original manufacturer is no longer in business; therefore, support is no longer available.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: Increased operating efficiency supports reliability of CAP water deliveries to customers.

ENVIRONMENTAL IMPACT: Replacement of pump motor exciters will improve the operational efficiency of pump motors, reducing energy use.

MOTOR EXCITER & CONTROL UNIT REPLACEMENTS AT WEST PLANTS

STRATEGY:	Effectively Manage, Operate and Maintain CAP Assets	**START DATE:**	1st Quarter 2017
KEY RESULT AREA:	Project Reliability	**COMPLETION DATE:**	4th Quarter 2022
PROJECT #:	610458	**TOTAL PROJECT COST:**	$15,034,000
		FUNDING SOURCE:	"Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 15,034	$ 2,330	$ 5,624	$ 4,982	$ 2,098	$ -	$ -	$ -	$ -

DESCRIPTION: The current generation of static exciters for the pump motors has been in operation for over 30 years and has reached end of life. Replacement or repair parts are difficult to locate with failures. This project will completely replace the static exciters and controller with modern equivalents at Bouse Hills, Little Harquahala, Hassayampa and Salt-Gila Pumping Plants. A pilot phase approach will be utilized for Salt-Gila, for 10 synchronous motors, followed by a second phase for the 10 units at each of the other three plants.

JUSTIFICATION: Exciters are at end of service life.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: Increased operating efficiency supports reliability of CAP water deliveries to customers.

ENVIRONMENTAL IMPACT: Replacement of pump motor exciters will improve the operational efficiency of pump motors, reducing energy use.

MOTOR REWIND, UNIT 6 AT MARK WILMER PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610271
START DATE: 3rd Quarter 2019
COMPLETION DATE: 1st Quarter 2021
TOTAL PROJECT COST: $5,327,000
FUNDING SOURCE: Insurance

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 5,327	$ 1,937	$ 3,370	$ 20	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Unit 6 of Mark Wilmer Pumping Plant is one of six pump units at the Mark Wilmer Plant, sited at the Lake Havasu intake. Each unit has a pumping capacity of 600 cubic feet per second (cfs) and is rated at 66,000 horsepower. Unit 6's stator sustained an electrical ground fault in late 2018, which resulted in gouging and pitting of the stator core. The pump unit was taken offline and disassembled.

An initial analysis indicated the rotor's insulation system may have failed, resulting in at least one loose bolt traveling through the air gap between stator and rotor, which generated the ground fault and damaged a stator coil. The plant has been forced to rely on the remaining five pump units to deliver water into the aqueduct and has faced some marginally higher power costs due to reliance on more on-peak pumping. Insurance coverage is reimbursing the project under a replacement-in-kind provision, currently being negotiated by CAP staff in parallel to this project.

JUSTIFICATION: Reliance on the operational five pump units at the plant results in reduced operating flexibility and has resulted in some additional power costs due to a shifting of pump schedules to more on-peak times of the day. As the sole point of intake for Colorado River diversions, maintaining maximum pumping capacity and flexibility of pump units has a high degree of strategic importance.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: Increased operating efficiency supports reliability of CAP water deliveries to customers.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

NETWORK REFRESHES 2020 / 2021

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610252 / 610253
START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $700,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 700	$ -	$ 350	$ 350	$ -	$ -	$ -	$ -	$ -

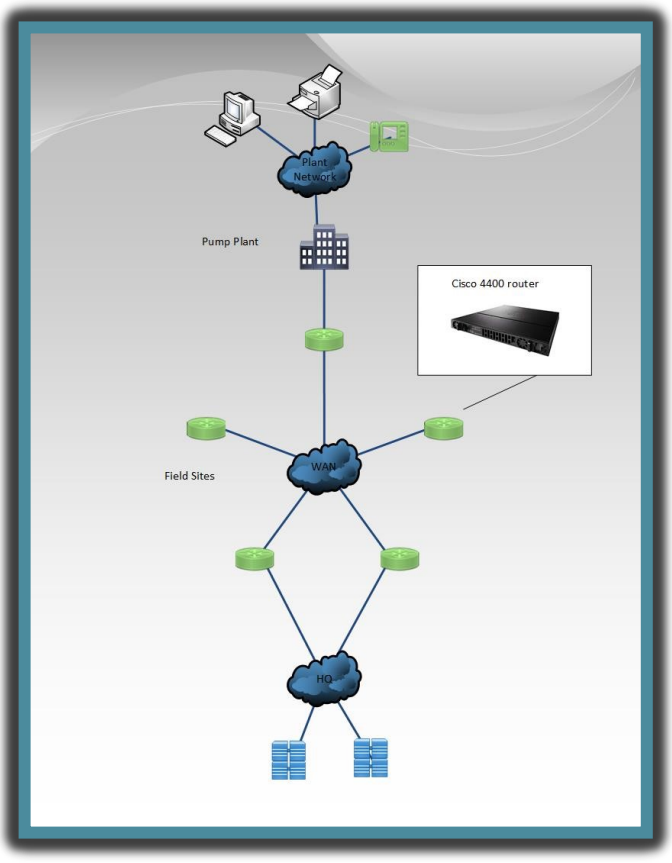
DESCRIPTION: As technology moves more into a hybrid environment that merges on-premises solutions with the Cloud, additional network equipment and associated software purchases are required to meet new project requirements without sacrificing CAP uptime standards

JUSTIFICATION: System infrastructure enhancements are required to meet project completion schedules and increase productivity, enterprise-wide.

OPERATING IMPACT: Consistent uptime that minimizes equipment failure rates and impacts, combined with increased workload management, will continue to be important as Infrastructure Technology expands its analytics program.

SOCIAL IMPACT: CAP employees and customers will benefit from increased information system reliability.

ENVIRONMENTAL IMPACT: Minimal. Newer equipment typically has less environmental impact than older equipment. Some use of higher-powered equipment may offset the environmental benefit of equipment upgrades.



Capital Improvement Program

POTABLE WATER SKID REPLACEMENTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610328
START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $1,903,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,903	$ -	$ 903	$ 1,000	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Potable water systems at seven pumping plants (Mark Wilmer, Bouse Hills, Little Harquahala, Hassayampa, Brady, Picacho and Red Rock) use ultra-high filtration (UHF) membrane modules manufactured by GE Homespring. These modules were installed as part of the Pumping Plant Potable Water project in 2010-2011, are now obsolete, and no longer supported by the manufacturer or vendors. Obtaining replacement filter membranes, as well as other parts for these skids, is no longer possible as the manufacturer has discontinued production of this system.

This project will replace existing water treatment skids with a modular system that fits in place and provides comparable water quality. Innovative Water Technologies, the original installation vendor, installed the GE Homespring filtration system and has developed an alternative system to replace the now obsolete system (Model UF40). The company is able to match CAP's existing input and output components, due to having designed and installed the original system and retaining all related drawings and specifications.

Replacement with VAF™ or a similar filter would provide a system of coarse/fine screens to achieve treatment requirements. Backwash would be performed by hydraulic power, in which the backwash valve at the flush outlet opens to atmospheric pressure, and pressure differential powers the backwash system. This backwash technique will reduce equipment downtime.

JUSTIFICATION: CAP must continuously maintain these systems in order to provide adequate potable water to each of these plants. To comply with state and federal Occupational Safety and Health (OSHA) requirements, CAP needs to provide potable water at each pumping plant. This is also a requirement of the Voluntary Protection Program (VPP) status CAP has with the Arizona State branch of OSHA.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: When the system is down, lack of a constant potable water source may adversely affect personnel morale and cause disruption to daily operations.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

POTABLE WATER SYSTEM UPGRADE AT SANDARIO PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610434
START DATE: 1st Quarter 2019
COMPLETION DATE: 3rd Quarter 2020
TOTAL PROJECT COST: $677,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 677	$ 230	$ 447	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION:

Sandario Pumping Plant uses an onsite water treatment system to provide potable water. The existing system draws aqueduct water and treats via ultrafiltration (UF) and liquid chlorine injection. All of the pumping plant's pumps use a food-grade mineral oil drip system for bearing lubrication. Due to bearing and pump shaft design, some oil accumulates in the water supply sump. It's also believed a portion of oil impacting the Sandario water supply sump comes from the plant upstream, Twin Peaks, which also uses the food-grade mineral oil drip system for bearing lubrication. (Twin Peaks potable water system isn't impacted by this oil since Twin Peaks has a well and storage tank that supplies potable water.)

In 1984, the Bureau of Reclamation installed a piezometer well approximately 2,500 feet from Sandario and encountered water at 417 feet below the surface. Due to the presence of oil in the Sandario sump water, the pre-filter and ultrafiltration membrane have become fouled and the existing treatment process is ineffective at removing the oil. This has resulted in oily water being visibly present in the toilet and sink waters.

A new well and storage tank will completely eliminate the existing water treatment system except for the chlorine injection system and replace it with the new facilities. A new 1,000-gallon tank to be sited on the second floor next to the treatment skid would, then, be connected to the booster system for plant-wide use.

JUSTIFICATION: Due to the presence of oil in the Sandario sump water, the existing treatment process is ineffective, resulting in potable water supplies with oil visibly present. Further, a reliable potable water supply onsite, for emergency showers and eyewash stations, is a federal Occupational Safety and Health Administration (OHSA) requirement.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: Improved work environment for CAP employees, visitors and contractors.

ENVIRONMENTAL IMPACT: Potential direct environmental impacts include effects on water supply and quality, with some potential land subsidence impacts.

PROGRAMMABLE LOGIC CONTROLLER (PLC) REPLACEMENTS AT WADDELL

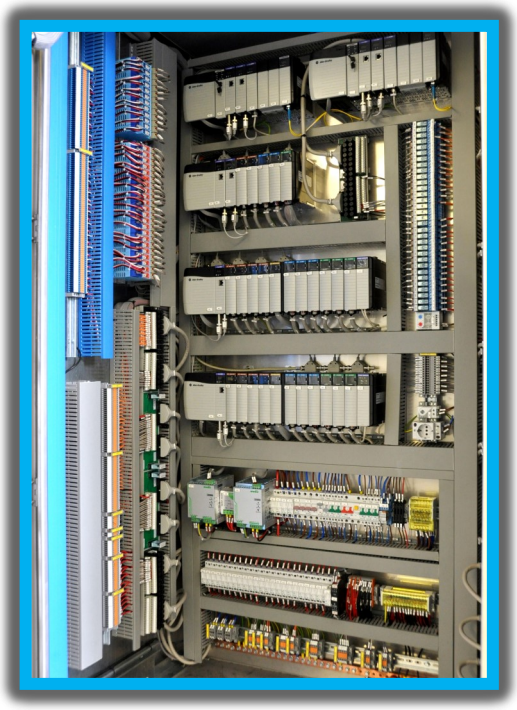
STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610329
START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2022
TOTAL PROJECT COST: $5,457,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 5,457	$ -	$ 425	$ 3,102	$ 1,930	$ -	$ -	$ -	$ -

DESCRIPTION: Waddell Pump / Generating Plant has been controlled by 13 Allen-Bradley programmable logic controllers (PLCs) since operation of the plant began in 1993. PLC components, including CPUs, input/output cards, and network interfaces, have reached the ends of their respective lifecycles and are no longer available. Many companies and utilities are either preparing to, or have already, migrated to the newest generation of PLCs.

This project will replace and standardize the new equipment for interoperability with existing systems.



JUSTIFICATION: Waddell Pump / Generating plant cannot be operated without functioning PLCs. Since the PLC-5 components are no longer manufactured, spare parts will eventually become unobtainable and before that prohibitively expensive. Depending on the specific component, a failure in the current PLC system could result in the inability to operate some or all of the plant.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SAND FILTER SYSTEM REPLACEMENT AT HASSAYAMPA PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610432
START DATE: 3rd Quarter 2018
COMPLETION DATE: 4th Quarter 2020
TOTAL PROJECT COST: $1,203,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,203	$ 367	$ 836	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Current sand filters at Hassayampa Pumping Plant are over 20 years old and the plant's system is the last one within the domestic water supply system to be using its original filter components. Sand filters process water for both the plant's system deliveries and onsite use, and deliver cooling water to the plant's rotating pump shafts to maintain temperature control and avoid catastrophic overheating. Increased corrosion in the plant's current filters was identified in early 2017. Additionally, large amounts of sediment have to be pumped from the plant's sump, and sediment loads are higher with the existing system.

The VAF™ filter system, manufactured by Evoqua Water Technologies, has been selected and has an additional feature of performing backwash operations via hydraulic pressure, which generates favorable pressure differential that powers the backwash system. Replacement would occur in conjunction with the routinely scheduled summer outage cycle at the West plants, including Hassayampa, with minimal additional impact on deliveries down times. Installation of all units will be completed during the second and third quarters of 2020. Performance of the replacement VAF filter system will be evaluated for potential implementation across all other pumping plants.

JUSTIFICATION: Replacement of sand filters would result in upgraded filtration technology that improves the reliability of onsite cooling water, reduces the need to pump sediment from the plant's sump, and increases water quality of CAP deliveries.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SCADA REPLACEMENT AT CONTROL CENTER

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610324
START DATE: 1st Quarter 2020
COMPLETION DATE: 2nd Quarter 2025
TOTAL PROJECT COST: $10,271,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 10,271	$ -	$ 533	$ 686	$ 2,981	$ 2,998	$ 3,016	$ 57	$ -

DESCRIPTION: The CAP system was designed to rely on remote operations to divert and deliver Colorado River water. The current Supervisory Control and Data Acquisition (SCADA) system was placed into service in 2012, with most hardware purchased in 2010. A hardware/software replacement is vital to keep up with changes and technological advancements to address security concerns. CAP owns and maintains IT architecture to support multiple SCADA systems (operations and maintenance). There may be an opportunity to optimize the management of these assets, realizing the same or improved functionality of these SCADA systems by consolidating or standardizing the systems used to maximize resources in an efficient manner.

Within the 2020 / 2021 cycle, an interdisciplinary team will select a consultant to help the team establish a viable option from which to define the final project scope. Once the team has developed the project's scope, it will proceed with designing the system through April 2021. Once the project's assessment and scope statement are complete, the project will issue a full project planning document to execute the agreed-upon scope by April 2021.

JUSTIFICATION: Current SCADA system is approaching the end of its sustainable life.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: SCADA system failure puts remote operations, including diversions and deliveries, at risk.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SEWAGE SYSTEM REPLACEMENT AT MARK WILMER PUMPING PLANT

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610390
START DATE: 1st Quarter 2020
COMPLETION DATE: 3rd Quarter 2022
TOTAL PROJECT COST: $658,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 658	$ -	$ 6	$ 171	$ 481	$ -	$ -	$ -	$ -

DESCRIPTION: The existing sewage treatment plant at Mark Wilmer Pumping Plant requires close monitoring of effluent quality as well as influent and the activated sludge mixture. The operation of the plant requires in-house Arizona Department of Environmental Quality (ADEQ) certified operators and permitting and regulatory compliance to legally operate. Maintaining and developing staff for certification requirements is costly and time consuming. Current staff that meet the requirements are nearing retirement. This facility is the last of its type at CAP. Similar facilities have been converted to alternate systems. Additionally the system requires significant labor, parts, and laboratory testing to maintain the existing system.

JUSTIFICATION: The qualified pool of certified ADEQ operators is small and requires additional staff to be trained and certified, which requires substantial effort. The preventive maintenance program requires weekly and additional periodically frequent tasks that precludes labor from being utilized for more core maintenance assignments. Permitting and laboratory testing are also administratively labor intensive.

OPERATING IMPACT: Reduced cost through lower maintenance requirements.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SIPHON STOP LOG REPLACEMENTS AT CUNNINGHAM WASH, GILA RIVER & SANTA CRUZ RIVER SIPHONS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610502
START DATE: 1st Quarter 2019
COMPLETION DATE: 1st Quarter 2020
TOTAL PROJECT COST: $2,445,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 2,445	$ 1,982	$ 463	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Stop-logs allow CAP personnel and equipment to enter the siphon and in cases of an emergency, the ability to evacuate. This project adds stop-log guides to the outlets of the Cunningham Wash, Gila River and Santa Cruz River Siphons. It includes design and construction of the guides and stop logs. New stop logs for three siphons, will include bubble-logs and lifting beams for use at the Waddell siphon. Currently, no means of access exists for this area. The Cunningham Wash, Gila River, and Santa Cruz River Siphons were built without guides at their outlets. Without a stop-log, it is difficult to dewater and perform an inspection of the interior of the siphons. In the event dewatering of a siphon is required, the downstream pool will have to be drained, which, at these locations is approximately 6-7 miles in length and as much as 675 acre-feet of water. Draining the pool also takes 3-4 weeks, for these full pools. Stop-logs allow for crews to safely work inside the siphons during inspection and repair work.

Stop-log guide installation was completed in 2018. As of April 2019, stop-logs, lifting beams and storage racks were to be delivered to the three sites during 2019 and to be completed in 2020.

JUSTIFICATION: CAP requires a means of isolating the siphons from the adjacent canal pools to be able to perform routine inspections and any required maintenance. A lack of stop-logs makes it difficult to isolate the siphons for maintenance.

OPERATING IMPACT: This project will be completed at each siphon during times that aqueduct flows can be reduced. The project's completion will reduce outage durations to conduct siphon maintenance and inspections, which may reduce operating costs.

SOCIAL IMPACT: Stop-logs facilitate a safe operating environment, greater accessibility and mobility for range of maintenance and inspection.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SUMP PUMP WATER LEVEL CONTROLS AT PUMPING PLANTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610473
START DATE: 3rd Quarter 2015
COMPLETION DATE: 3rd Quarter 2021
TOTAL PROJECT COST: $2,010,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 2,010	$ 353	$ 1,104	$ 553	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: This project will replace the existing controls with Programmable Logic Controller (PLC) level controls driven from ultrasonic level sensors. The replacement system will monitor sump pump performance and provide pump performance data.

The original water level control instrument was a float-actuated unit with electric contact controllers. One controller operated one of two pumps and provided a high water level alarm and plant shutdown functions. The second controller operated the second sump pump two and provided left and right plant shutdown functions. Major project deliverables include electrical and fiber cable installation, ultrasonic level instrument installation and configuration, and construction of a new PLC panel with connection of wiring for sump controls.

JUSTIFICATION: Existing equipment is obsolete.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SWITCHYARD BUS DUCT REPLACEMENT AT WADDELL

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610389
START DATE: 4th Quarter 2020
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $375,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 375	$ -	$ 10	$ 365	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: The current state of the Waddell Pump / Generating Plant's high-voltage, nonsegregated-phase bus creates a risk to continued reliable plant operation. After an inspection identified insulation readings that had degraded, intensive cleaning and maintenance was performed. Readings were considerably improved but quickly degraded, again, in adverse weather conditions. The original duct design was susceptible due to failure to protect electrical components from the weather elements. The bus was temporarily covered with roofing material in 2007 and performed well. Covers were removed in mid-2018 and sealed, however, functionality was lost due to subsequent rainwater infiltration. Only the design phase of this project is planned for the current budget period.

JUSTIFICATION: Electrical system protection from weather elements at Waddell Pump / Generating Plant requires a reevaluation of the existing duct design.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

SWITCHYARD SECURITY AT DELANEY

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610263
START DATE: 1st Quarter 2021
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $482,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 482	$ -	$ -	$ 482	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: U.S. Federal Energy Regulation Commission (FERC) mandates that certain key transmission infrastructure assets be hardened with reinforced perimeter security, such as walling, fencing or wiring. This project is to bring the Delany switchyard into compliance to improve the security at the site.

JUSTIFICATION: Safeguarding CAP electricity generation and transmission systems, or participation interests, mitigates risk of compromise or more severe damage. Completing the project brings the switchyard into compliance on this security issue.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.

TRANSFORMER REPLACEMENT AT McCULLOUGH

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610519
START DATE: 1st Quarter 2018
COMPLETION DATE: 3rd Quarter 2023
TOTAL PROJECT COST: $8,159,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 8,159	$ 1,970	$ 1,063	$ 1,063	$ 2,063	$ 2,000	$ -	$ -	$ -

DESCRIPTION: Power that serves Mark Wilmer Pumping Plant is provided primarily through a single 400-megavolt ampere (MVA), 500/230-kilovott (kV) transformer located at the McCullough substation in Nevada. There are three transformers at McCullough, each owned by a different utility. CAP owns the capacity on the Transformer Bank I but has no capacity rights on other transformers or other transmission systems in the area. This sole power source for CAP's intake plant represents a business risk for the Mark Wilmer Pumping Plant.

JUSTIFICATION: Transformer Bank I has been in service for over 40 years and nearing the end of its useful service life.

OPERATING IMPACT: Replacement of the McCullough transformer will reduce the risk of failure and avoid the costs associated with purchasing alternative transmission capacity.

SOCIAL IMPACT: Power supply reliability increases reliability of CAP water operations, benefiting customers.

ENVIRONMENTAL IMPACT: An environmental assessment will be performed prior to construction to ensure compliance with federal and state laws.

TRANSMISSION LINE VALENCIA TO BLACK MOUNTAIN

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610514
START DATE: 2nd Quarter 2020
COMPLETION DATE: 4th Quarter 2020
TOTAL PROJECT COST: $1,785,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 1,785	$ -	$ 1,785	$ -	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: Construction of a new 2.7-mile 115-kilovolt (kV) transmission line from Arizona Electric Power Cooperative's (AEPCO) Valencia substation, near Tucson, to an existing CAP transmission line at the Black Mountain Pumping Plant spreader yard.

JUSTIFICATION: The existing transmission line has a gap of 0.7 miles, which requires South Plants to be fed, radially, from the Rattlesnake switchyard. An unexpected outage between the switchyard and CAP transmission line would result in lost power to the plants. This project would eliminate the radial-feed system via a 'loop feed' to the same plants, improving maintenance scheduling flexibility.

OPERATING IMPACT: In the event of a failure at Rattlesnake Switchyard, this project would give CAP the ability to provide power and avoid any service interruptions at the Tucson B pumping plants.

SOCIAL IMPACT: Improved reliability by providing power for operations at the Tucson B pumping plants increases CAP service reliability.

ENVIRONMENTAL IMPACT: Use of shared transmission avoids duplicate systems, benefiting wildlife corridors for terrestrial and avian species.

Capital Improvement Program

WINDOWS SERVER REFRESHES 2020 / 2021

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610254 / 610255
START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2021
TOTAL PROJECT COST: $450,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (in $000s):

Total	Pre-2020	2020	2021	2022	2023	2024	2025	Balance
$ 450	$ -	$ 225	$ 225	$ -	$ -	$ -	$ -	$ -

DESCRIPTION: As technology moves more into a hybrid environment that merges on-premises solutions with the Cloud, Microsoft Windows® server equipment and associated software purchases are required to meet new project requirements without sacrificing CAP uptime standards.

JUSTIFICATION: System infrastructure enhancements are required to meet project completion schedules and increase productivity, enterprise-wide.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: CAP employees and customers will benefit from increased information system reliability.

ENVIRONMENTAL IMPACT: Minimal. Newer equipment typically has less environmental impact than older equipment. Some use of higher-powered equipment may offset the environmental benefit of equipment upgrades.

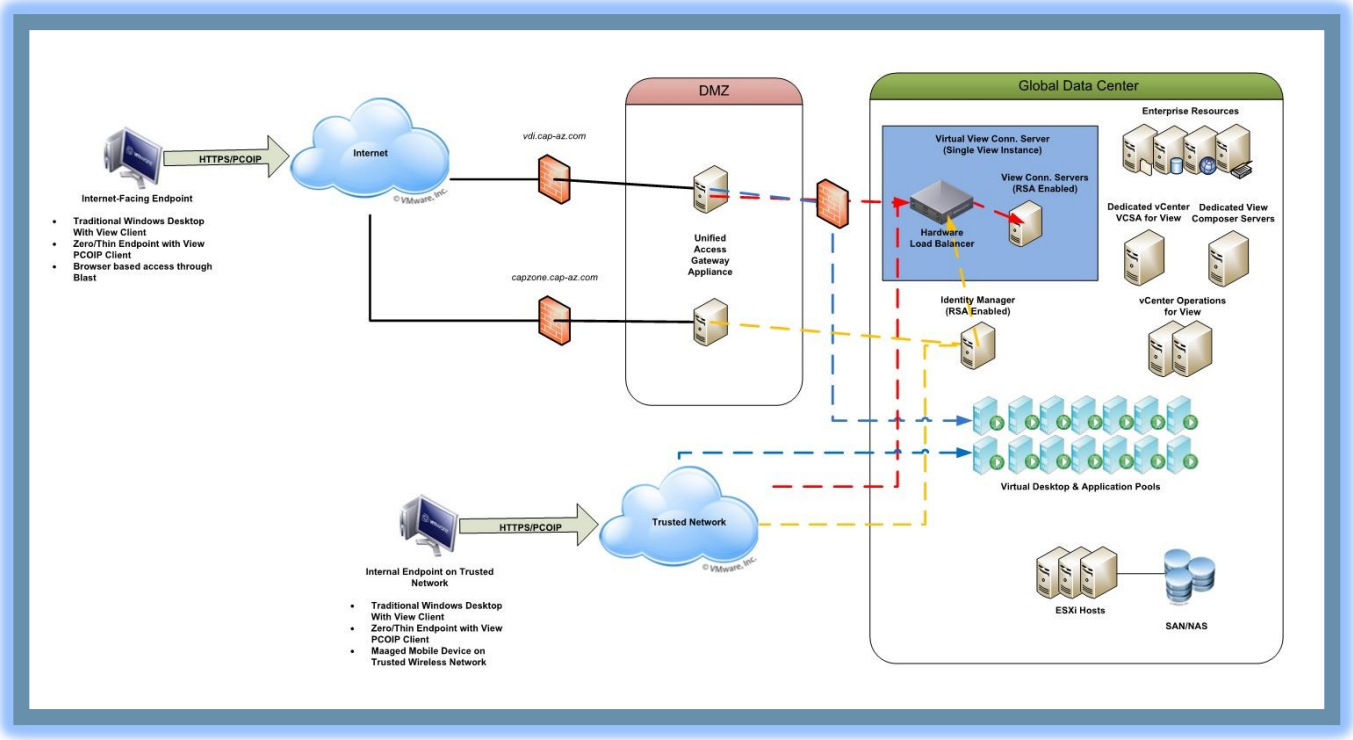


Table of Organization

CAP Turnouts - - Making A Difference

Sweating Never Felt So Good
By: Vicky Campo

I spend about one Saturday a month sweating, but I really don't mind. Volunteering with CAP's volunteer group, CAP Turnouts, gives me a chance to get to know co-workers and, at the same time, contribute to the communities we serve here at CAP. I won't deny that it's sometimes hot, dirty and physical, but it's also satisfying and fun.

As chair of the CAP Turnouts, I have the opportunity to work on all kinds of volunteer projects, but they all meet a specific set of criteria. First, we want to serve the community in a meaningful way. If we can work directly with the people who benefit from our labor, all the better. Second, we want to bring co-workers together. If you spend a day volunteering next to a co-worker, it gives you a new appreciation for who they are, and that helps build a better workplace. Third, we want to give in ways that meet our employees' needs. In order to do that, we offer three basic kinds of activities.

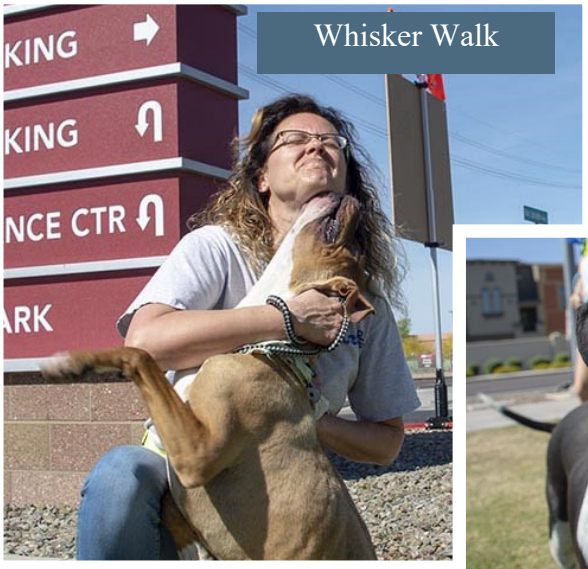
The first category is my favorite, the workday. If you like to get your hands dirty, these days are for you. We've done home makeovers, landscaping, warehouse work, painting, food preparation and much more. You can bring friends and family, and sometimes even young children.

The second category is the donations drive. These drives are designed for those of us with tighter schedules, but who still want to give back. We have collected food, clothing, toys, blankets, school supplies, toiletries, cell phones, hearing aids, glasses and more. I love seeing a full donation box in the hallway. It reminds me that I work for a company that fosters community awareness.

The last category provides a way for employees to make financial donations through payroll deduction. We call it Charities of Choice. Employees nominate their favorite charities and the committee chooses ten each year to be part of our program.

One other thing you should know about CAP Turnouts: each activity is led by a different co-worker. These team leaders work with the charitable organizations to set up the activity or workday, manage sign-ups and gather supplies, and provide volunteers with the information they need.

Working with CAP Turnouts is one of the best parts of my job.

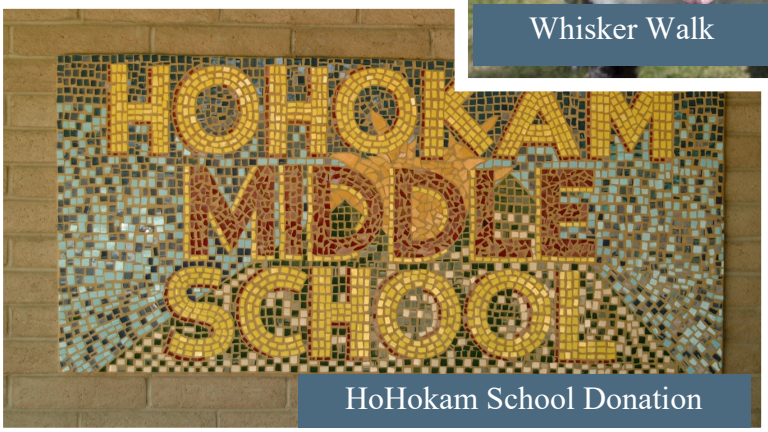


Whisker Walk


Southwest Wildlife


Whisker Walk

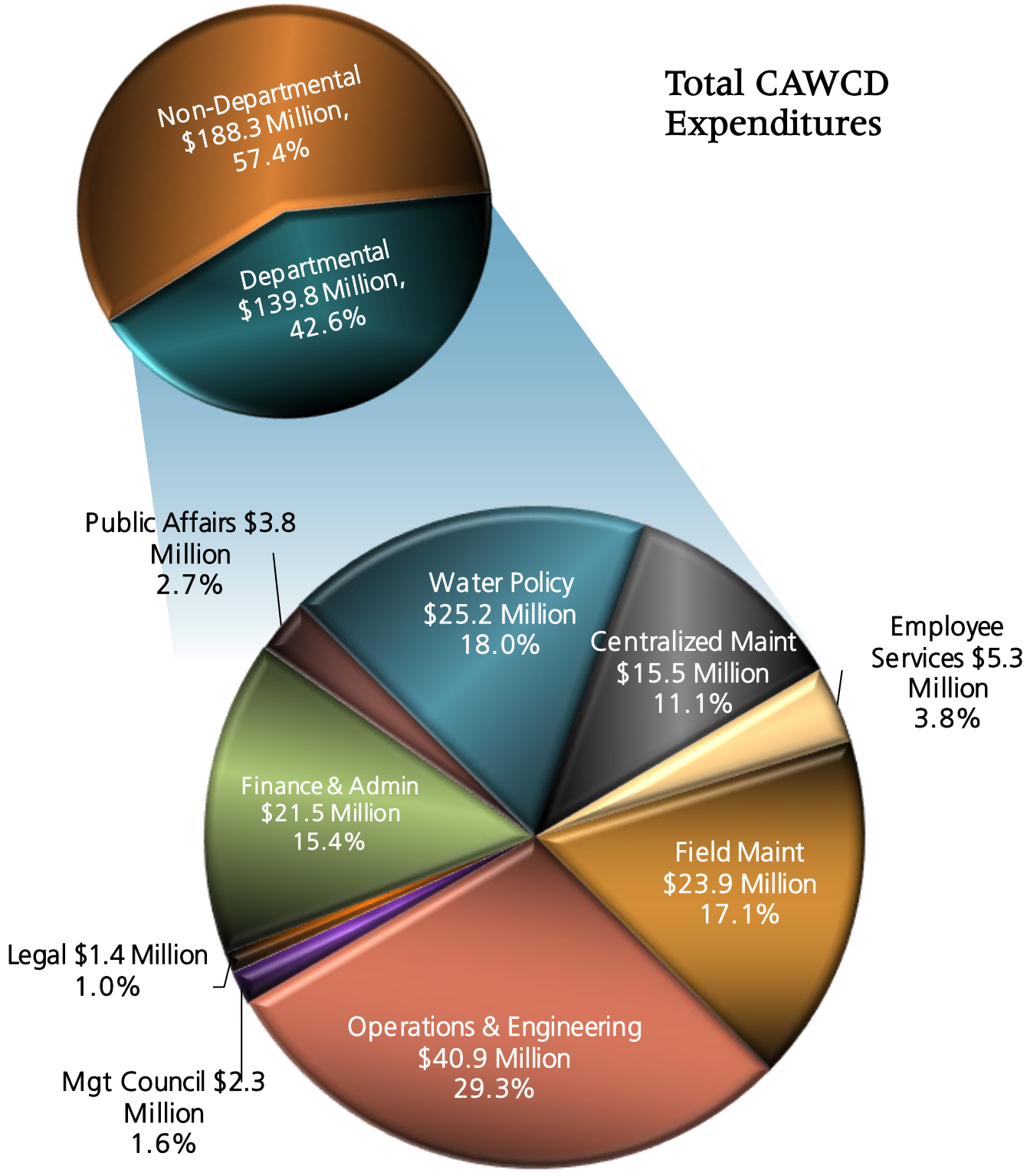

St. Vincent de Paul



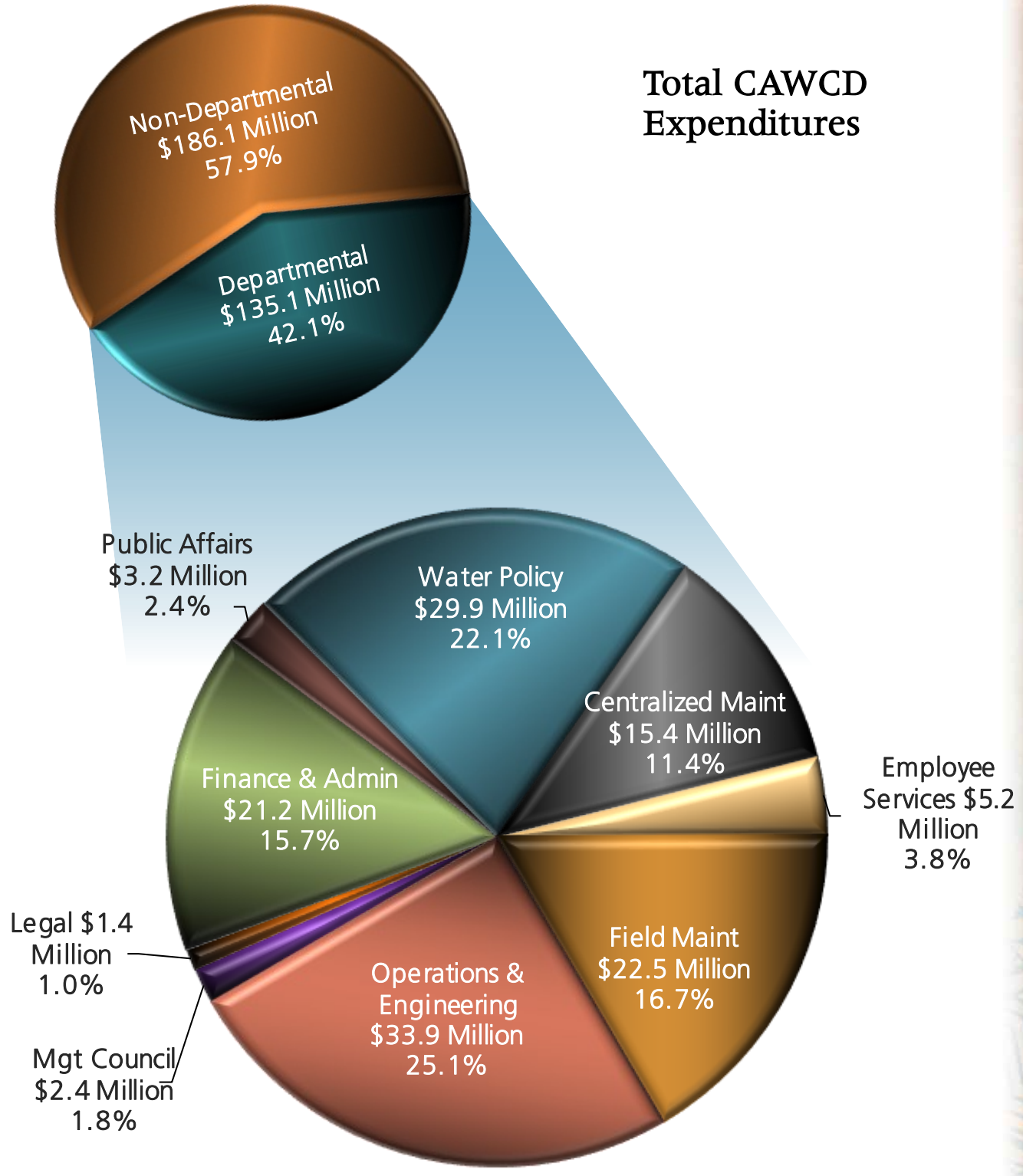
HoHokam School Donation


Burrowing Owl Habitat

2020 Total Expenditures



2021 Total Expenditures



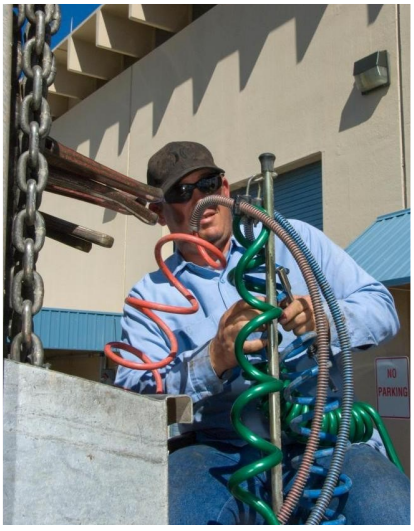
Our Beliefs

Central Arizona Project employees work with pride to create a safe, supportive and friendly workplace. We believe in:

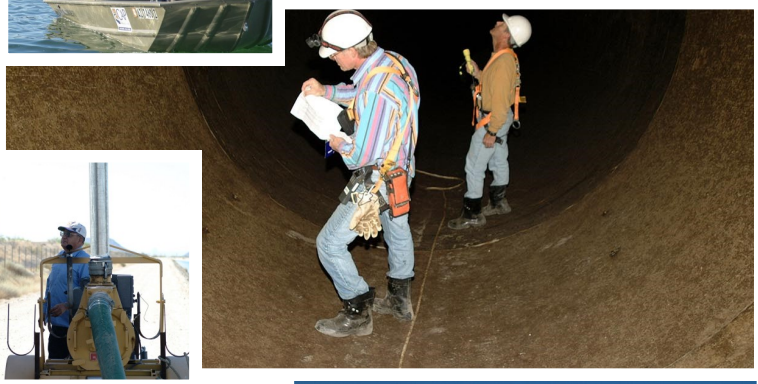
- Employees who are reliable and principled
- Service that is top notch for our internal and external customers
- Work done professionally and responsively
- Relationships among employees and customers that are collaborative and innovative
- Community connections through volunteerism, charitable contributions and public education














Summary of Positions

Average Full-Time Equivalent (FTE)
(All FTE are General Fund except as noted)

	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Administration					
Management Council	**14.6**	**14.0**	**12.0**	**13.0**	**13.0**
Legal Services	**4.9**	**4.7**	**5.0**	**5.0**	**5.0**
Finance & Administration					
Finance & Accounting	17.7	17.4	18.6	19.0	19.0
Information Technology	33.2	32.6	32.6	34.0	34.0
Risk Management	6.5	7.4	7.6	8.0	8.0
Supply Chain & Facilities	26.3	27.5	27.1	28.0	28.0
Total Finance & Administration	**83.7**	**84.9**	**85.9**	**89.0**	**89.0**
Employee Services					
Centralized Learning & Development	5.8	6.0	5.5	6.0	6.0
Environmental Health & Safety	10.0	9.6	10.6	11.0	11.0
Human Resources	7.0	6.6	6.8	7.5	7.5
Protective Services	10.0	10.0	9.4	9.0	9.0
Total Employee Services	**32.8**	**32.2**	**32.3**	**33.5**	**33.5**
External Affairs					
Water Policy					
CAGRD*	9.0	9.3	8.4	9.0	9.0
Water Policy	7.9	6.8	7.4	8.0	8.0
Total Water Policy	**16.9**	**16.1**	**15.8**	**17.0**	**17.0**
Public Affairs	**14.2**	**15.0**	**14.5**	**16.0**	**16.0**
Operations & Maintenance					
Centralized Maintenance & Reliability					
Centralized Maintenance	59.3	59.9	60.3	64.0	64.0
Maintenance Control	40.0	40.4	39.2	39.0	39.0
Total Centralized Maintenance & Reliability	**99.3**	**100.3**	**99.5**	**103.0**	**103.0**
Field Maintenance					
Operational Technology	48.6	49.7	46.9	46.0	46.0
South Area Maintenance	42.2	41.8	44.6	46.0	46.0
West Area Maintenance	42.4	43.5	44.3	45.0	45.0
Total Field Maintenance	**133.2**	**135.0**	**135.8**	**137.0**	**137.0**
Operations & Engineering					
Engineering	62.1	61.0	62.5	64.0	64.0
Power Program Admin	1.8	2.0	2.5	3.0	3.0
Water Operations	20.4	19.1	20.7	22.0	22.0
Total Operations & Engineering	**84.3**	**82.1**	**85.7**	**89.0**	**89.0**
Total FTE	**483.9**	**484.3**	**486.5**	**502.5**	**502.5**
Vacancy/Salary Savings Equivalent	-	-	(1.0)	(15.0)	(15.0)
Net FTE	**483.9**	**484.3**	**485.5**	**487.5**	**487.5**

Note: Based on re-organization as of 6/5/19

*CAGRD Account FTE

Explanation of Changes in Positions

Average Full-Time Equivalent (FTE)
(All FTE are General Fund except as noted)

	2019 Projection	2020 Budget	2021 Budget	2020 vs 2019	2021 vs 2020	Notes
Administration						
Management Council	**12.0**	**13.0**	**13.0**	**1.0**	**-**	Filling vacant position
Legal Services	**5.0**	**5.0**	**5.0**	**-**	**-**	
Finance & Administration						
Finance & Accounting	18.6	19.0	19.0	0.4	-	
Information Technology	32.6	34.0	34.0	1.4	-	Filling vacant position
Risk Management	7.6	8.0	8.0	0.4	-	
Supply Chain & Facilities	27.1	28.0	28.0	0.9	-	Filling vacant position
Total Finance & Administration	**85.9**	**89.0**	**89.0**	**3.1**	**-**	
Employee Services						
Centralized Learning & Development	5.5	6.0	6.0	0.5	-	Filling manager position
Environmental Health & Safety	10.6	11.0	11.0	0.4	-	
Human Resources	6.8	7.5	7.5	0.7	-	Less than budgeted interns
Protective Services	9.4	9.0	9.0	(0.4)	-	Position moved to Environmental Health & Safety
Total Employee Services	**32.3**	**33.5**	**33.5**	**1.2**	**-**	
External Affairs						
Water Policy						
CAGRD*	8.4	9.0	9.0	0.6	-	Filling specialist positions
Water Policy	7.4	8.0	8.0	0.6	-	Filling specialist position
Total Water Policy	**15.8**	**17.0**	**17.0**	**1.2**	**-**	
Public Affairs	**14.5**	**16.0**	**16.0**	**1.5**	**-**	Filling analyst positions
Operations & Maintenance						
Centralized Maintenance & Reliability						
Centralized Maintenance	60.3	64.0	64.0	3.7	-	Filling vacant positions
Maintenance Control	39.2	39.0	39.0	(0.2)	-	Transfers to Water Ops and Engineering, offset by vacancies in 2019
Total Centralized Maintenance & Reliability	**99.5**	**103.0**	**103.0**	**3.5**	**-**	
Field Maintenance						
Operational Technology	46.9	46.0	46.0	(0.9)	-	Rovers moved to South & West Area Maintenance; offset by filling vacant positions
South Area Maintenance	44.6	46.0	46.0	1.4	-	Adding a Rover due to reorganization
West Area Maintenance	44.3	45.0	45.0	0.7	-	Adding a Rover due to reorganization; filling vacant positions
Total Field Maintenance	**135.8**	**137.0**	**137.0**	**1.2**	**-**	
Operations & Engineering						
Engineering	62.5	64.0	64.0	1.5	-	Position transferred from Maintenance Control; filling vacant positions
Power Program Admin	2.5	3.0	3.0	0.5	-	
Water Operations	20.7	22.0	22.0	1.3	-	Position transferred from Maintenance Control; filling vacant positions
Total Operations & Engineering	**85.7**	**89.0**	**89.0**	**3.3**	**-**	
Total FTE	**486.5**	**502.5**	**502.5**	**16.0**	**-**	
Vacancy/Salary Savings Equivalent	(1.0)	(15.0)	(15.0)	(14.0)	-	
Net FTE	**485.5**	**487.5**	**487.5**	**2.0**	**-**	

Note: Based on reorganization as of 6/5/19
*CAGRD Account FTE

Management Council

Mission: Provides leadership and direction in managing the business of the Central Arizona Water Conservation District through implementation of the CAWCD Board of Directors' strategic vision, building and maintaining trust-based relationships with stakeholders, protecting the District's resources and operating in a responsible and environmentally sound manner.

Responsible for providing independent, objective assurance and consulting services to assist management in accomplishing the District's business objectives, identifying and managing risks, improving operations and establishing effective controls at a reasonable cost.

Responsible for providing support and services necessary for CAWCD to provide a productive, safe, healthy and secure environment where our programs and services encourage employees to work at their optimum level individually and in teams.

Responsible for managing financial and administrative activities of the District, including finance, accounting, enterprise risk, records and resiliencies, supply chain and facilities services. Ensures the accuracy and integrity of financial reporting, including rates, budget and reserves as well as compliance with records management standards, purchasing policy and oversight of Captive Insurance operations.

Responsible for managing timely, effective and high-quality legal services to the CAWCD Board, management and staff in order to assure compliance with laws, regulations and policies applicable to CAWCD and support achievement of the District's strategic and business objectives.

Management Council
ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Leadership & Public Trust	Build a strong CAP work community	Action Plan: Implement development programs to prepare existing employees to assume leadership roles for a diversified and cohesive workforce, while continuing to build employee and work group relationships through improved internal communication, business initiative alignment and teamwork across departments. The expected outcome for 2019 was to expand the Strategic Talent Enablement Process (STEP) through continuation of the Supervisor Academy and the Management University and kickoff of Leadership Institute. Complete next round of all-manager 360 reviews by the end of 2019. Accomplishment: Completed the fourth cohort of the Supervisor Academy and initiated the fifth. Management University included several in-person events and numerous on-line offerings to allow managers to do development work to address personal or organizational opportunities identified in the first round of 360 reviews in 2016. One in-person and one online training are mandatory, but managers can seek additional recognition by completing 2/2 or 3/3 or more. The second round of 360 reviews will be used to gauge progress. The Leadership Institute is more customized for individual senior executives.
	Position CAP as a recognized leader in water and energy management	Action Plan: Actively engage at national, state and regional levels to promote the interests of CAP and its constituents. The expected outcome for 2019 was to complete the Lower Basin Drought Contingency Plan and DCP Plus. In addition to implementing Minute 323 Domestic Agreements and System Use Agreement subordinate agreements. Accomplishment: Participated as a key contributor in interstate negotiations on the Drought Contingency Plan (DCP). Co-chaired the Arizona DCP Steering Committee to develop an intra-Arizona DCP implementation plan. Arizona State Legislature and U.S. Congressional approval were achieved in early 2019. Continued work on transitioning from the closure of NGS to new power contracts and participating in the decommissioning plan. Established a Board Task Force on Customer Service. Created the "Know Your Water" initiative.

Management Council
ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Leadership & Public Trust	Create a more effective customer and stakeholder working relationship within the M&I, agricultural, Native American Indians and irrigation districts	Action Plan: Continue active outreach and liaison programs with customers to pursue improved and effective relationships amongst customers and stakeholders, including municipal and industrial (M&I), agricultural and Native American tribes. The expected outcome was to continue to expand the stakeholder outreach programs, administer a stakeholder survey, and evaluate and implement recommendations. Accomplishment: Continued our stakeholder relations and outreach efforts with all constituent sectors. Established and maintained good working relationships with state legislators and staff and the Arizona Congressional delegation. As part of the Board Customer Service Task Force, completed a number of surveys, focus groups and surveys to inform the Task Force's deliberations and recommendations. As co-chair of the Arizona DCP Steering Committee, interacted with numerous constituencies throughout Arizona, including CAP's own stakeholders and others.
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	Action Plan: Evaluate methodologies for water rates, capital charges, reserves and use of taxes for stakeholder discussions and ultimate Board review and decisions. The expected outcome was to expand upon stakeholder workshops, develop scenarios and alternatives for consideration by the Board and incorporate into 2019 / 2020 rate-setting. Accomplishment: With the Colorado River shortage on the horizon, CAP rate cases including shortage scenarios to aid customers in planning. The Finance Audit and Power Committee conducted a thorough update of the CAP Rate-Setting Policy. Customer briefings are being expanded as part of the Customer Service Task Force—a customer roundtable and customer briefing in 2019 addressed the question of M&I Capital Charges and federal repayment in the face of the elimination of Surplus Power Revenues after NGS closes and the use of property taxes to make it up, and incorporated those discussions into the determination of rates by the Board.
Project Reliability	Provide reliable and cost-effective water deliveries	Action Plan: Implement processes designed to ensure the integrity of the physical system, minimize unplanned outages and maximize customer deliveries with the expected outcome of implementing specific recommendations from the Asset Management Customer Value survey. Accomplishment: In conformance with ISO 55000, CAP has completed its Asset Management Policy and Strategic Asset Management Plan. CAP received the Uptime Award for Maintenance Reliability for "Best Asset Management Program" and also the North American Maintenance Excellence (N.A.M.E.) award.

Management Council
ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Continue to establish methods which encourage advancement of employee performance and skills through increased understanding of existing programs, policies and procedures with the expected outcome of the expansion of the Strategic Talent Enablement Program (STEP) Supervisor Academy, Management University and Leadership Institute.
Project Reliability	Maintain high levels of skills and job proficiency among employees	Accomplishment: Continued Manager/Supervisor meetings and all-employee "Beyond the Buzz" convocations to communicate key organizational initiatives. Updated and communicated key policy changes. Implemented tools to track mandatory safety and job proficiency training. CAP is approaching its third recertification in the Voluntary Protection Program for Safety, received the Exemplary Award for Occupational Safety and Health Leadership from the Industrial Commission of Arizona and also received the Healthy Arizona Worksites Silver Award from the Arizona Department of Health Services.
		Action Plan: Implement technology that increases access to information by employees, directors, stakeholders and the general public with the expected outcome of evaluating and implementing technology solutions including data integration, remote access, mobile applications and enhanced security.
	Improve technology management	Accomplishment: Continued live streaming of CAP Board meetings and archiving of recordings indexed to briefing materials. Transitioned to a more comprehensive Board packet software package that streamlined change control and provides assurance that each constituent has the most up-to-date materials. Based on Customer Service Task Force feedback, implemented a "summary of action" narrative for each Board Committee meeting to complement the formal minutes in order to help Committee work be more effective.

Management Council
ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Water Supply	Manage Colorado River to optimize CAP water availability	Action Plan: Engage in processes at the federal and regional arenas that protect and enhance western water supplies, particularly the Colorado River. The expected outcome was the completion of Lower Basin Drought Contingency Plan and the DCP Plus within Arizona. In addition to the implementation of the Minute 323 Domestic Agreements, while avoiding or mitigating shortage in 2018, 2019 and 2020. Accomplishment: Participated as a key contributor in interstate negotiations on the Drought Contingency Plan (DCP). Co-chaired the Arizona DCP Steering Committee to develop an intra-Arizona DCP implementation plan. Arizona State Legislature and U.S. Congressional approval were achieved in early 2019. Participated as a principal in the Colorado River Salinity Control Forum and desalination work group associated with the implementation of Minute 323 to the Treaty with Mexico. Continued efforts in programs such as the Pilot System Conservation Program that helped Lake Mead to avoid shortage in 2018, 2019 and 2020. Contributed significant water and money resources towards the implementation of DCP in Arizona.
Power	Develop plans for reliable, sustainable, cost-effective generation resources for the future	Action Plan: Continue to work with the United States, Navajo Nation and Hopi Tribe, project owners and other stakeholders to successfully conclude efforts to ensure the ongoing operation of the NGS through 2019. Issue RFP for post-2020 NGS replacement power, build a portfolio and contract for power. The expected outcome was the completion of NGS lease and contract extensions; the decommissioning scope and financing plans; and the completion of post-2020 contracting. Accomplishment: CAP met goals for its post-NGS power portfolio that were established by the CAP Power Task Force, and worked with the United States, NGS owners and other stakeholders to effect an order closure of NGS and transition to decommissioning. Several major transmission projects to improve CAP transmission reliability and cost were completed on time and on budget.
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: Continue to implement the CAGRD water supply acquisition program with the expected outcome of pursuing opportunities for long-term on-river supplies, as well as local supplies and LTSC purchases. Accomplishment: CAGRD completed a major transaction with the Gila River Indian Community and Gila River Water Storage LLC for a 25-year supply that includes the purchase of long-term storage credits, recovery of those credits and a lease of long-term, high priority supplies. This transaction was historical in scope and complexity. CAGRD also spent considerable effort pursuing on-river supplies that ultimately did not come to fruition.

Management Council

BUSINESS GOALS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Leadership & Public Trust	Build a strong CAP work community	Action Plan: Implement development programs to prepare existing employees to assume leadership roles for a diversified and cohesive workforce, while continuing to build employee and work group relationships through improved internal communication, business initiative alignment and teamwork across departments. Expected Outcome: Expand the Strategic Talent Enablement Process (STEP) through continuation of Supervisor Academy, Management University and Leadership Institute. Continue use of Beyond the Buzz, Manager/Supervisor meetings and CAP Connections. Expand use of the Management Council teams.
	Position CAP as a recognized leader in water and energy management	Action Plan: Actively engage at national, state and regional levels to promote the interests of CAP and its constituents. Expected Outcome: Implement the Drought Contingency plan beginning in 2020. Engage in the interstate and intra-state discussions regarding the Re-consultation of the 2007 Guidelines. Transition through the closure of the Navajo Generating Station and have reliable and cost-effective replacement power in place beginning in 2020.
	Create a more effective customer and stakeholder working relationship within the M&I, agricultural, Native American Indians and irrigation districts	Action Plan: Continue active outreach and liaison programs with customers to pursue improved and effective relationships amongst customers and stakeholders, including municipal and industrial (M&I), agricultural and Native American tribes. Expected Outcome: Expansion of stakeholder outreach programs. Implement and monitor the effectiveness of the Customer Service Task Force recommendations.
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	Action Plan: Evaluate methodologies for water rates, capital charges, reserves and use of taxes, discuss related issues with stakeholders and the Board. Expected Outcome: In conjunction with expanded use of Stakeholder Briefings and Customer Roundtables, complement the formal rate-setting process with additional discussions regarding the impact of shortage on water delivery rates, the utilization of rate stabilization funds and the use of property taxes.
Project Reliability	Provide reliable and cost-effective water deliveries	Action Plan: Implement processes designed to ensure the integrity of the physical system, minimize unplanned outages and maximize customer deliveries. Expected Outcome: Divert CAP's full entitlement less water that is targeted for protection of Lake Mead. Meet or exceed established targets for scheduled and unscheduled outages. Maintain expectations established by published rates with and without shortage and mitigation.

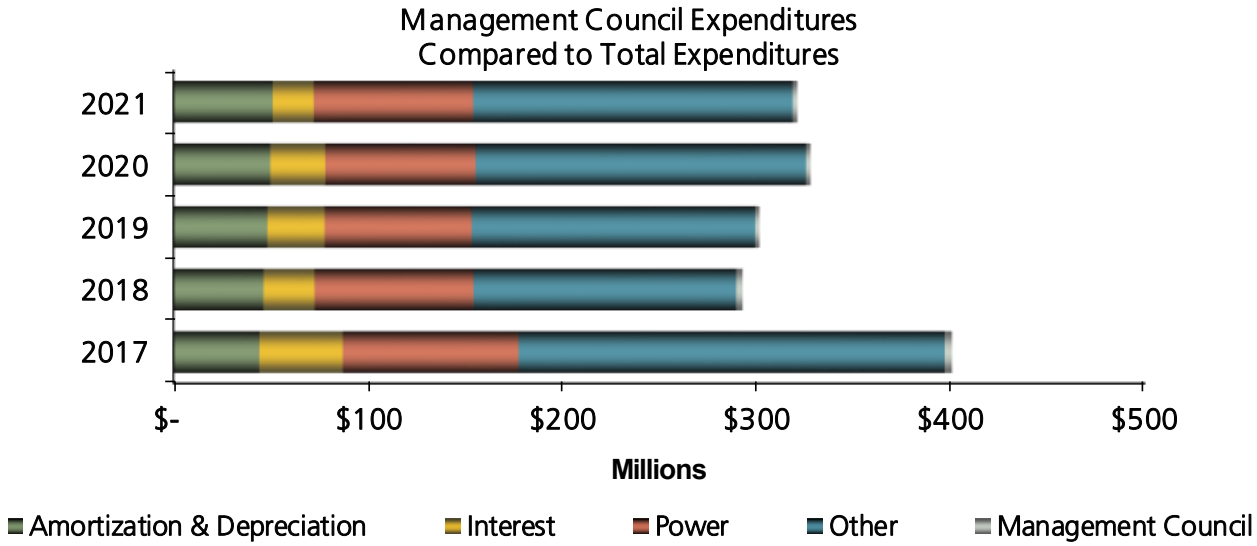
Management Council

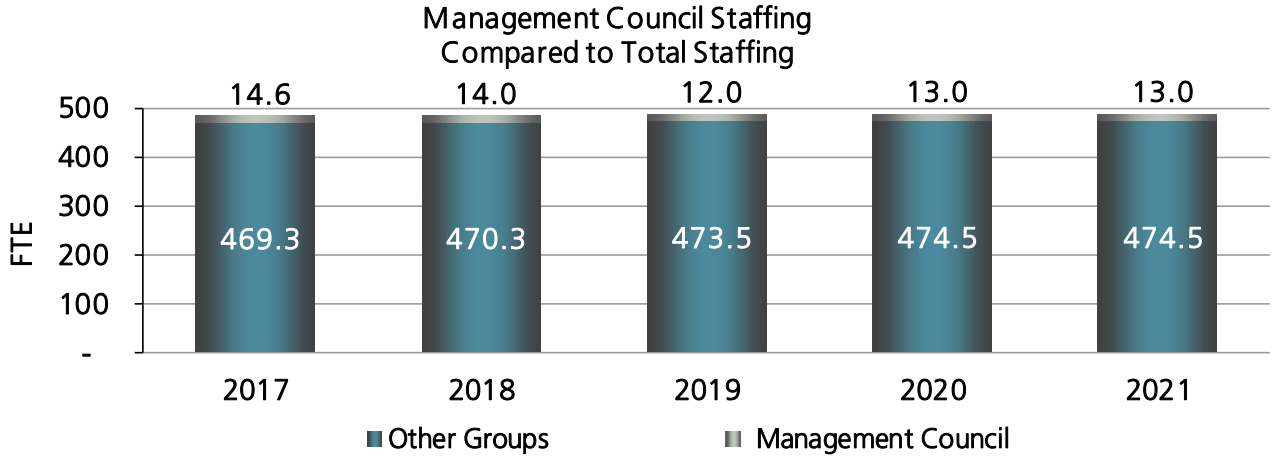
BUSINESS GOALS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Project Reliability	Maintain high levels of skills and job proficiency among employees	Action Plan: Continue to establish methods which encourage advancement of employee performance and skills through increased understanding of existing programs, policies and procedures. Expected Outcome: Continuation of the Strategic Talent Enablement Program (STEP) Supervisor Academy, Management University and Leadership Institute. Maintain an effective apprenticeship program and journeyman level development.
	Improve technology management	Action Plan: Implement technology that increases access to information by employees, directors, stakeholders and the general public. Expected Outcome: Evaluate and implementing technology solutions relating to data integration, remote access, mobile applications and enhanced security.
Water Supply	Manage Colorado River to optimize CAP water availability	Action Plan: Engage in processes at the federal, regional and state arenas that protect and enhance western water supplies, particularly the Colorado River. Expected Outcome: Implement the completion of Lower Basin Drought Contingency Plan. Avoid or mitigate shortage in 2020-2025. Begin Re-consultation on the 2007 Guidelines. Participate in the implementation of Minute 323 to the Mexican Treaty.
Power	Develop plans for reliable, sustainable, cost-effective generation resources for the future	Action Plan: Continue to work with the United States, Navajo Nation and Hopi Tribe, project owners and other stakeholders to successfully close the Navajo Generating Station by the end of 2019 and transition into decommissioning. Expected Outcome: Continue to contract for NGS replacement power. Completion of decommissioning scope and financing plans.
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: Continue to implement the CAGRD water supply acquisition program. Expected Outcome: Begin implementation of the transaction between the CAGRD, the Gila River Indian Community and Gila River Water Storage LLC. Follow up on other opportunities that arose while the GRIC transaction was being negotiated. Complete the CAGRD mid-Plan review.

Management Council
Budget Summary

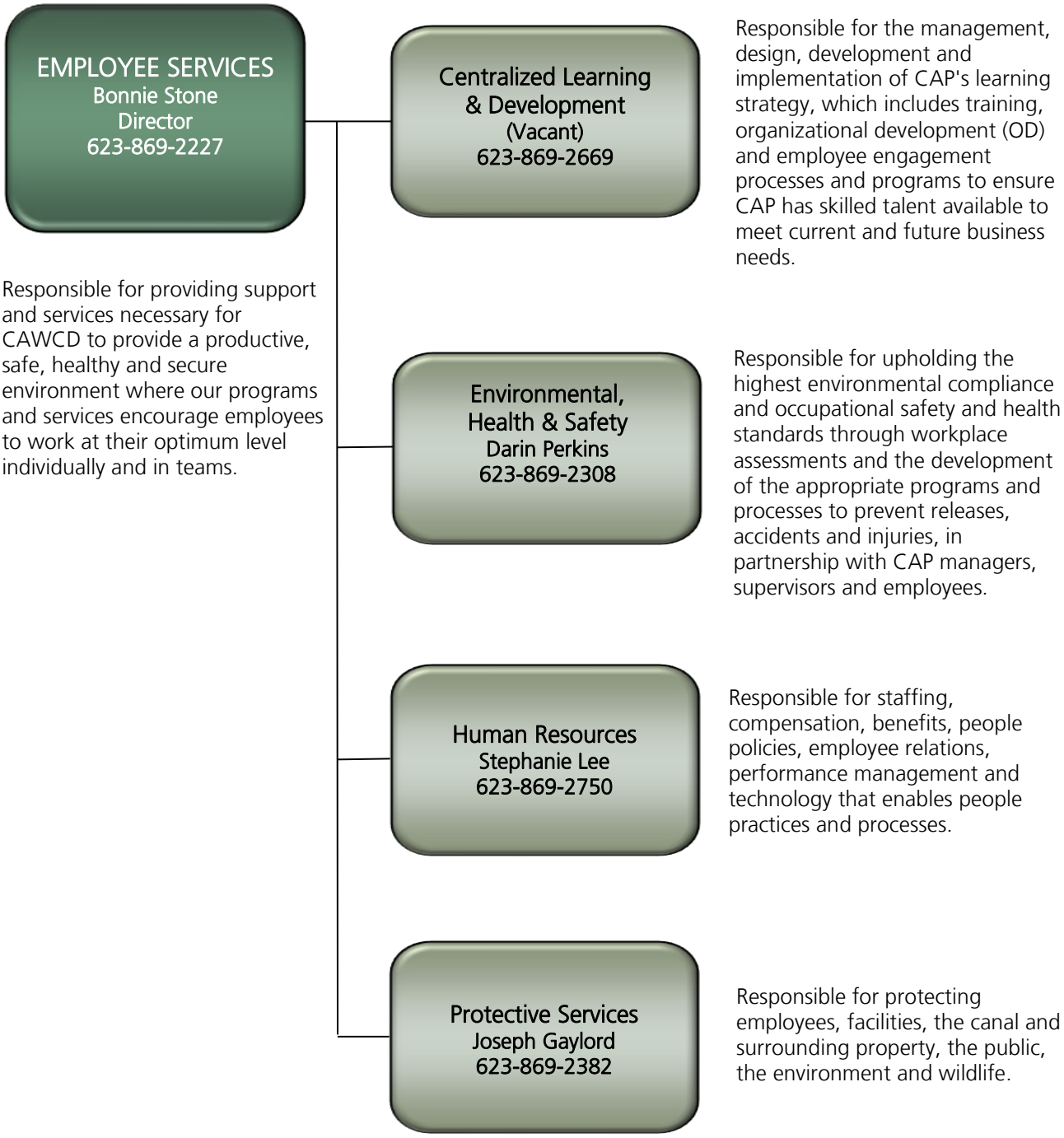
(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 2,234	$ 2,207	$ 1,993	$ 2,221	$ 2,288
Outside services	74	85	75	60	60
Materials & supplies	1	2	2	2	2
Other expenses	1,229	958	162	41	43
Total Operating Expenses	$ 3,538	$ 3,252	$ 2,232	$ 2,324	$ 2,393
Expenditures by Fund					
Operating Expenses					
General Fund	$ 3,538	$ 3,252	$ 2,232	$ 2,324	$ 2,393
CAGRD	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 3,538	$ 3,252	$ 2,232	$ 2,324	$ 2,393
Capital Expenditures	176.0	-	-	-	-
Total Expenditures	$ 3,714	$ 3,252	$ 2,232	$ 2,324	$ 2,393
Staffing (FTE)	14.6	14.0	12.0	13.0	13.0





Employee Services

Mission: The Employee Services Group provides strategic support through talent and organizational programs, processes and practices that promote a safe and secure work environment with competitive pay and benefits; while enhancing effectiveness by increasing employees' knowledge, skills, and abilities through continued learning, growth and development opportunities. Through these efforts CAWCD will remain an employer of choice able to recruit and retain highly qualified workers while also being a leader in workplace safety, health and sustainability.



ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Maintain competitive pay and benefits. The expected outcome was to continue to review salary information and conduct biennial compensation surveys. In addition to proactively partnering with consultant and third party administrators to ensure best discounts and pricing strategies for Medical, Mental Health and Prescription Medication. Accomplishment: Human Resources conducted professional research and analysis that determined CAP's merit guidelines align with market survey data. Our Human Resources department played an integral role in identifying an experienced consultant to help define the scope and select the best Pharmacy Benefits Manager (PBM) contract for CAP. Two RFPs are in progress to select a PBM and legal plan to serve CAP employees.
Project Reliability	Maintain CAP as an excellent employer	Action Plan: Continue to provide training and career opportunities to retain employees with the expected outcome of developing a survey tool to measure employees motivation to stay at CAP and establish a talent management philosophy to retain employees. Accomplishment: A survey was conducted around CAP incentive programs. Both HR and CLD are working to develop a talent management strategy.
		Action Plan: Promote diversity & inclusion in the work force. The expected outcome was to make sure the mission/vision statement had been updated, if necessary. As well as develop communication of the Organization Diversity and Inclusion mission/vision statement. Accomplishment: The Mission and Vision Statement has been updated. The Diversity & Inclusion committee is actively supporting the strategic plan and vision. They continue to promote diversity through educational seminars, videos, meetings, conferences and job fairs.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
	Maintain a safe and secure working environment	Action Plan: Maintain Voluntary Protection Program Star status with Arizona Division of Occupational Safety and Health or equivalent. The expected outcome was to have successfully acquired VPP recertification in 2019. As well as Total Recordable Case (TRC) and Days Away, Restricted, Transfer (DART) rates below the Arizona averages for the water and sewer utility industry. In addition, all directors and managers will perform two visits (not in their reporting work area). Accomplishment: Manager/ Director field visit goal was met. CAP met 4 of the Big 5 goals. SVST established the VPP subcommittee of which is charged to prepare the organization for requalification in 2020. CAP continues to remain well below TRC and DART rates.
Project Reliability		Action Plan: Continue to foster CAP's culture of safety, including meeting established safety metrics. The expected outcome was to have ninety percent of required safety and health training completed annually and increase employees participating in the monthly safety matrix questionnaire. Accomplishment: 2018 resulted in 97.7% completion of required safety and health training for all employees. 2019 Safety Week focused on compliance-required courses.
	Maintain high levels of skills and job proficiency among employees	Action Plan: Maintain an effective apprenticeship program and journeyman level development. The expected outcome was to establish a baseline for journeyman competencies for each trade, and to determine the process and perform a baseline skill assessment. Accomplishment: Graduated apprentices in the electrical and mechanical trades, all of whom completed trade specific job training standards establishing a baseline for expected competencies. Journeyman craft trade workers participated in a variety of training events to increase their technical knowledge and skills.

ACCOMPLISHMENTS

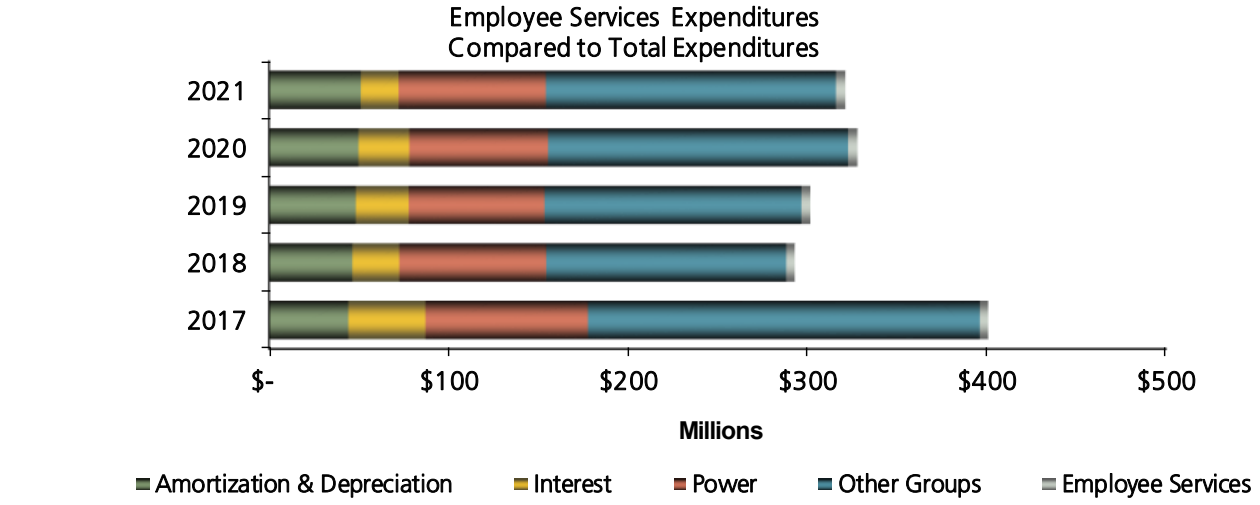
Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Manage an effective pay for performance system. The expected outcome was to make changes to pay practices based on benchmark data. Accomplishment: Employee Services appointed members to two committees and hired an external consultant to review pay plans without impacting base pay.
Project Reliability	Maintain high levels of skills and job proficiency among employees	Action Plan: Investigate incentives that promote employee job improvement and success. The expected outcome was to survey industries as to the types of incentives that promote success. Accomplishment: Survey was circulated resulting with 363 responses from employees. Results indicate an employee interest to contribute to the Big 5 goal aside from safety goals, celebrate successes and strong communication on strategies.
		Action Plan: Provide employee development processes and programs to improve job performance and capabilities. The expected outcome was to continue to roll out Strategic Talent Enablement Process (STEP) Program; and have 85% attendance in developmental activities resulting from the CCL 360 assessment data. In addition, based on the outcome use asset management data to determine future workforce needs. Accomplishment: As part of the STEP program, 14 managers and directors completed in-person workshops and e-courses to successfully achieve the final level of the Management University. In addition, 16 participants graduated from the Supervisor Academy and 16 more are anticipated to graduate in Q1 of 2020.

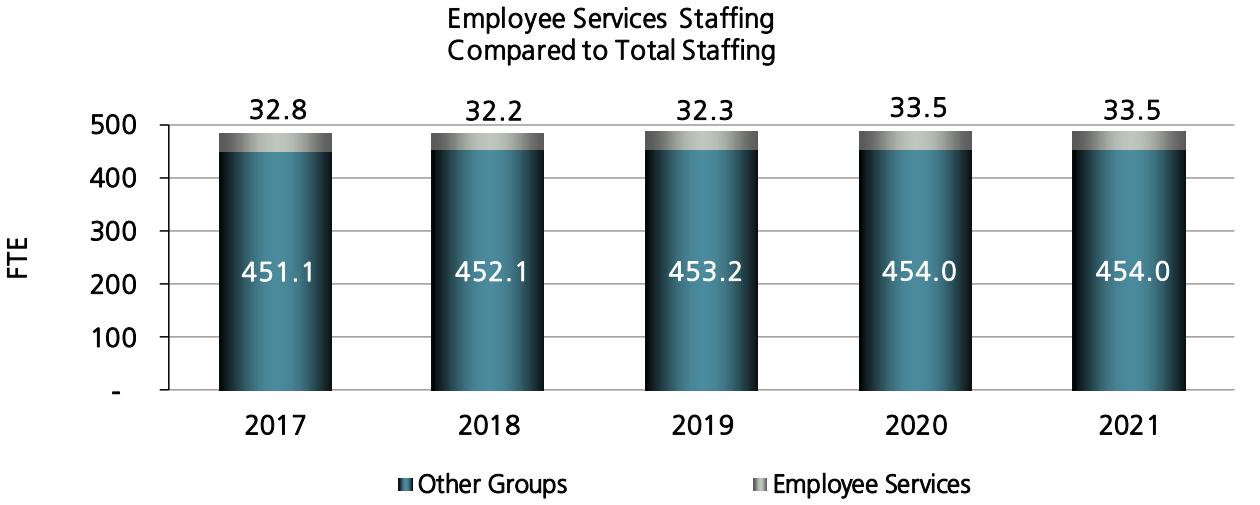
Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
		Action Plan: Administrate the Apprenticeship Programs and initiate a process with Maintenance to determine CT training needs of the future to begin putting plans in place to build our own to attract crafts and trades candidates. Expected Outcome: Maintain an effective apprenticeship program and journeyman level development. Continue to provide, monitor, and assess development and training needs of apprentices and Craft & Trade employees by increasing the knowledge, skills and abilities of all CAP employees through the collaborative development and delivery of targeted training initiatives.
Project Reliability	Maintain high levels of skills and job proficiency among employees	Action Plan: Continue to implement the Strategic Talent Enablement Process through the completion of the Management University's first cohort and the Supervisor Academy's fifth cohort. Reinforce the Leadership Challenge's Five Practices of Exemplary Leadership through communication and training. Expected Outcome: Provide employee development processes and programs to improve job performance and capabilities.
		Action Plan: Support a strong safety culture and motivate Employee Services Staff to participate in the monthly safety recognition award program. Expected Outcome: 100% completion of all ES compliance required safety training (with the possible exception of those that might be missed due to unforeseen illness/emergency).
	Maintain CAP as an Excellent Employer	Action Plan: Initiate a process with Centralized Learning & Development to review, research and propose changes to the current Performance Management processes for both AETP and CT employees. Expected Outcome: Development of HR metrics for data collection. Work in partnership with staff and CLD to identify resources, determine areas of improvement and initiate messaging on proposed changes to processes as necessary.

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
	Maintain CAP as an Excellent Employer	Action Plan: Maintain Competitive Pay and benefits. Expected Outcome: Continue to review salary information and conduct biennial compensation surveys, and proactively partner with consultant and third party administrators to ensure best pricing strategies. Based on benchmark data, make changes to pay practices as needed.
		Action Plan: Reduce time to hire by 15% through metrics and process improvement. Expected Outcome: Identify the hindrances delaying hiring process, develop talent pipeline and streamline ways to source candidates.
Project Reliability		Action Plan: Develop subcommittee to fully prepare organization for recertification process and expectancies for the 2020 ADOSH VPP recertification audit. Expected Outcome: Successfully acquiring VPP recertification in 2020, as well as Total Recordable Case (TRC) and Days Away, Restricted, Transfer (DART) rates below the Arizona averages for the water and sewer utility industry.
	Maintain a safe and secure working environment	Action Plan: In Wellness, identify ways to incentivize effort and identify additional metrics for tracking the success of the program. Expected Outcome: Research trends, accomplishments and use data to develop quantifiable metrics to track success of program.
		Action Plan: Continued improvement in existing waste reduction, management and diversion programs. Develop electronic checklists for completing environmental waste and water sampling events. Expected Outcome: Establish a method and considerations to be used and observed when collecting wastewater samples for field screening or laboratory analysis.

Employee Services
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 2,555	$ 2,559	$ 2,592	$ 2,749	$ 2,830
Outside services	1,446	1,418	1,581	1,706	1,558
Materials & supplies	122	133	160	179	147
Other expenses	481	595	635	705	684
Total Operating Expenses	$ 4,604	$ 4,705	$ 4,967	$ 5,339	$ 5,219
Expenditures by Fund					
Operating Expenses					
General Fund	$ 4,604	$ 4,705	$ 4,967	$ 5,339	$ 5,219
CAGRD	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 4,604	$ 4,705	$ 4,967	$ 5,339	$ 5,219
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 4,604	$ 4,705	$ 4,967	$ 5,339	$ 5,219
Staffing (FTE)	32.8	32.2	32.3	33.5	33.5





Employee Services
CENTRALIZED LEARNING & DEVELOPMENT

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 455	$ 474	$ 465	$ 535	$ 551
Outside services	102	23	21	11	5
Materials & supplies	2	6	42	10	8
Other expenses	308	457	475	505	477
Total Operating Expenses	$ 867	$ 960	$ 1,003	$ 1,061	$ 1,041
Expenditures by Fund					
Operating Expenses					
General Fund	$ 867	$ 960	$ 1,003	$ 1,061	$ 1,041
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 867	$ 960	$ 1,003	$ 1,061	$ 1,041
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 867	$ 960	$ 1,003	$ 1,061	$ 1,041
Staffing (FTE)	5.8	6.0	5.5	6.0	6.0

Employee Services
ENVIRONMENTAL, HEALTH & SAFETY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 831	$ 820	$ 866	$ 908	$ 935
Outside services	49	68	59	85	58
Materials & supplies	51	58	53	93	63
Other expenses	128	98	113	123	127
Total Operating Expenses	$ 1,059	$ 1,044	$ 1,091	$ 1,209	$ 1,183
Expenditures by Fund					
Operating Expenses					
General Fund	$ 1,059	$ 1,044	$ 1,091	$ 1,209	$ 1,183
CAGRD Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	$ 1,059	$ 1,044	$ 1,091	$ 1,209	$ 1,183
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 1,059	$ 1,044	$ 1,091	$ 1,209	$ 1,183
Staffing (FTE)	10.0	9.6	10.6	11.0	11.0

Employee Services
HUMAN RESOURCES

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 542	$ 512	$ 548	$ 584	$ 600
Outside services	596	625	685	760	645
Materials & supplies	5	4	3	3	3
Other expenses	39	37	37	63	66
Total Operating Expenses	$ 1,182	$ 1,178	$ 1,272	$ 1,410	$ 1,314
Expenditures by Fund					
Operating Expenses					
General Fund	$ 1,182	$ 1,178	$ 1,272	$ 1,410	$ 1,314
CAGRD Account					
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 1,182	$ 1,178	$ 1,272	$ 1,410	$ 1,314
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 1,182	$ 1,178	$ 1,272	$ 1,410	$ 1,314
Staffing (FTE)	7.0	6.6	6.8	7.5	7.5

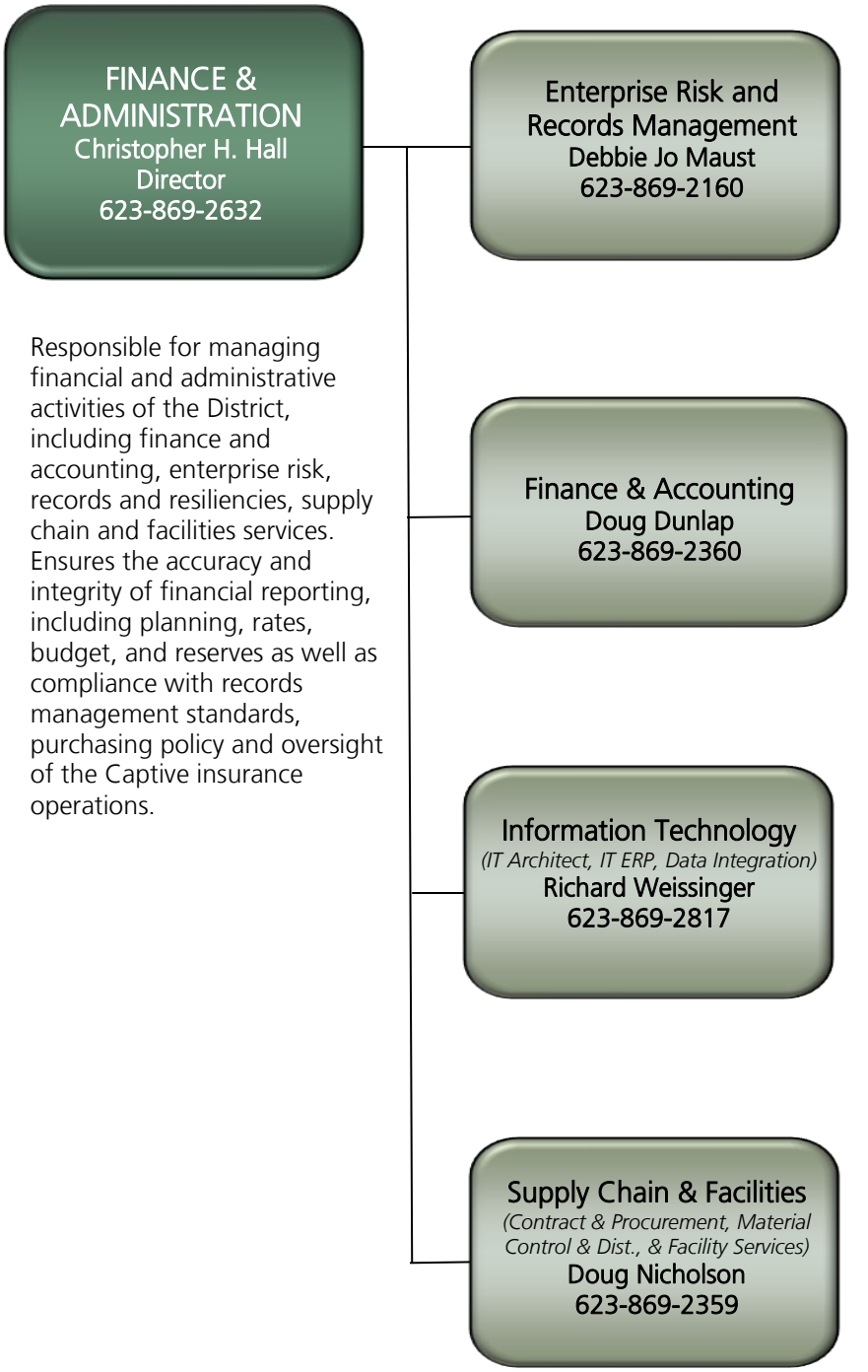
Employee Services
PROTECTIVE SERVICES

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 727	$ 753	$ 713	$ 722	$ 744
Outside services	699	702	816	850	850
Materials & supplies	64	65	62	73	73
Other expenses	6	3	10	14	14
Total Operating Expenses	$ 1,496	$ 1,523	$ 1,601	$ 1,659	$ 1,681
Expenditures by Fund					
Operating Expenses					
General Fund	$ 1,496	$ 1,523	$ 1,601	$ 1,659	$ 1,681
CAGRD Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 1,496	$ 1,523	$ 1,601	$ 1,659	$ 1,681
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 1,496	$ 1,523	$ 1,601	$ 1,659	$ 1,681
Staffing (FTE)	10.0	10.0	9.4	9.0	9.0


CAP
CENTRAL ARIZONA PROJECT

Finance & Administration

Mission: The Finance & Administration Group is responsible for managing financial and administrative activities of the District, including finance and accounting, enterprise risk, records and resiliencies, supply chain, facilities services and information technologies. Ensures the accuracy and integrity of financial reporting, including planning, rates, budget, and reserves as well as compliance with records management standards, purchasing policy and oversight of the Captive insurance operations.



Responsible for managing financial and administrative activities of the District, including finance and accounting, enterprise risk, records and resiliencies, supply chain and facilities services. Ensures the accuracy and integrity of financial reporting, including planning, rates, budget, and reserves as well as compliance with records management standards, purchasing policy and oversight of the Captive insurance operations.

Responsible for coordinating the Districts risk management activities to control cost of risk in support of the District's objectives, managing the CAWCD Captive insurance company, records management, information governance and library, and maintaining preparedness for business disaster and threats.

Responsible for financial analysis and statement reporting according to generally accepted accounting principles (GAAP). Responsible for budget development and management, long-range financial planning (LRFP), cash and treasury management, accounts receivable and payable, payroll, accountable property and working with outside auditors during the annual financial audit.

Responsible for the secure development, operation, maintenance and business continuity of the information technology infrastructure including applications, databases, networks, servers, workstations and mobile devices located at CAP facilities or abroad.

Responsible for the procurement of goods and services, inventory control, distribution of materials, supplies and equipment to various locations, as well as facilities services for CAP Headquarters and outlying facilities.


CAP
CENTRAL ARIZONA PROJECT

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Leadership & Public Trust	Improve relationships with constituents and the public-at-large	Action Plan: Participate with professional organizations in leadership roles if possible, seeking speaking opportunities to advance CAP's reputation and to communicate key messages. The expected outcome was to cultivate and maintain positive working relationships with peers at state, county, municipalities and industry. In addition to increasing participation by 30% over staff's 2017 participation levels. Accomplishment: 2018 was a big year for expanding CAP staff participation amongst peer groups. The new Director joined GFOA. The Enterprise Risk and Records Management group met with staff from the Arizona State Library to better understand record retention laws. Finance staff collaborated with AWBA staff to draft a new IGA that will make the Water Bank's purchase of long-term storage credits less burdensome.
		Action Plan: Maintain a transparent procurement program that facilitates the business of CAP to achieve the sound use of public resources (C&PS). The expected outcome was to have submitted the Achievement of Excellence in Procurement award and attend the reverse trade shows to interact with other public agencies and current and potential suppliers. Accomplishment: Staff continues to attend reverse trade shows. In 2018 & 2019, CAP applied for, and subsequently was awarded, the Achievement of Excellence in Procurement award from the NIGP.
Project Reliability	Maintain high levels of skills and job proficiency among employees	Action Plan: Provide employee development processes and programs to improve job performance and capabilities. The expected outcome was to strategically develop new and current employees in new positions to establish skill levels required to maintain customer service levels. As well as having a staged rollout of data management tools and training to reduce volume of redundant, outdated and trivial content in records repository. Also evaluate department development strategies (i.e., C&PS, MC&D, Facilities). Accomplishment: Records efforts continue, but in 2018, 254 banker boxes of outdated records were destroyed, 1,142 previously incomplete purges were finalized and 24,720 electronic records were dispositioned. In terms of developing staff, one staff member completed Management University, two were recertified as Certified Professional Buyers, and a Material Handler received his hazardous material certification. In 2018 and 2019, four additional staff will have completed the Supervisor Academy.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Project Reliability	Maintain preparedness for business and infrastructure disasters and threats	Action Plan: Complete updates to pandemic status; updating Extraordinary Event policy and Pandemic section of the Emergency Operations Plan. Conduct tabletop exercises with a mock pandemic / workforce shortage scenario every three years with next scheduled exercise in 2020. The expected outcome was to complete awareness and application of the business disaster recovery plans at the department level. Accomplishment: Staff conducted a mock pandemic tabletop exercise in 2018. Two field exercises were also completed in 2018.
	Maintain effective information technology systems	Action Plan: Update the Technology strategic plan. The expected outcome was to align technology strategies with business and operational strategies. Update the enterprise architecture program with specific goals as it relates to CAP requirements for the enterprise, and complete a technology services portfolio. Accomplishment: The Network and Security supervisor was hired in Q4 2018. Improving CAP's security awareness program, security audits and adding additional tools will be the main responsibilities of this division. An updated 12, 24, 36 month plan will keep CAP information secure.
Finance	Effectively communicate financial issues to Board, customers and stakeholders	Action Plan: Continually evaluate and resolve financial threats. The expected outcome was to "timely" identify the magnitude of potential issues and provide recommendations and options to mitigate threats. In addition to ensuring independent audit reviews and other required financial communications are performed timely and accurately and reports and communications are provided in required timeframes. Additional outcomes would be to provide periodic updates to the Board as appropriate, and compile financial reporting and communications list, and meet reporting deadlines. In addition to evaluating impacts of official accounting changes and inform management and Board on financial implications, while complying 100% with all governmental accounting policies and procedures. Accomplishment: In 2018 the Auditor General performed an external audit and found accounting and financial policies to be appropriate. One item was recommended for review and staff promptly implemented a modification to existing practices. Staff continues to comply with all GASB pronouncements, as well as governmental policies and procedures.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	Action Plan: Evaluate various methodologies for rates and capital charges for consideration for Stakeholder discussions and ultimate Board review and decisions. The expected outcome was to have scenarios and comparisons developed by the end of 2018. Accomplishment: Staff explored various options for rates with the possibility of impending shortage and have published a "Base" scenario and an "Alternative" scenario in order to rate payers to have maximum information for planning purposes. The anticipated closure of NGS by the end of 2019, repayment obligations will fall almost exclusively to capital charges and tax revenues. In March 2019, staff held the first ever Capital Charge and Use of Tax Roundtable to solicit customer feedback on an appropriate repayment strategy. Customer feedback was weighed against other priorities and staff developed a tax and rate recommendation for the Board.
	Coordinate projected uses of funds with appropriate sources of financing	Action Plan: Evaluate how costs of major expenditures can be properly allocated to the beneficiaries of those expenditures under appropriate contracts and policies. The expected outcome was to have continued monitoring while maintaining the integrity of the source and use of funds and ensure compliance to contracts, agreements and policies. Develop recommendations for property tax proceeds. Scenarios and comparisons to be developed by the end of 2019. Accomplishment: Staff developed a recommendation for property tax proceeds in 2018 and 2019. In 2018, tax proceeds were recommended for NGS decommissioning costs. In 2019, a recommendation was made to use taxes for recovery projects and mitigate an anticipated spike in repayment in 2021, among other ongoing priorities. Through ongoing analysis, source and use restraints have been maintained. CAGRD entered into a major purchase agreement with GRIC/GRWS in 2019 and staff explored opportunities to finance the transaction, eventually bringing its recommendation to the Board for adoption.
	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	Action Plan: Maintain a capital replacement plan consistent with maintaining reliability of the system. The expected outcome was to develop a coordinated work plan that displays all needed facility-related capital improvement projects, major maintenance tasks and space alterations. Plan is developed and all major work is tracked. Accomplishment: In 2018 and 2019, reconfigurations will be completed for the RIM, Engineering and IT Departments to allow for better workflow and efficiency.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Implement technology solution that will allow data to be available and integrate with multiple systems. The expected outcome was to research and implement a middleware solution. This solution will allow multiple data sets to be consumed regardless of the data silo. Accomplishment: CAP used outside research companies (Gartner and Info Tech) to update the data strategy. Two proof of concept projects completed in 2018 and a Microsoft platform was selected. The Data Integration project has two phases scheduled to complete in 2019.
		Action Plan: Implement the ability to calculate cost of ownership solution as it pertains to technology solutions. The expected outcome to manage the licensing and equipment costs as it pertains to capital projects. Accomplishment: Licensing/maintenance software costs are captured in the early steps of the Project Steering Committee project planning phase.
Project Reliability	Maintain effective information technology systems	Action Plan: Improve customer service. The expected outcome was to review current business unit technology capabilities and update systems/processes as needed. Some of the customer systems to review would include remote access, service catalog, CAP favorites applications, RSA tokens, and certificates as examples. Accomplishment: The CAP email system was moved to the cloud to allow more external access and improved reliability. A service catalog was installed to allow employees better access to all department services. Applications are being developed to allow field employees the ability to complete inspections on a remote device eliminating manual processes.
		Action Plan: Define enterprise hardware and software standards. The expected outcome was to complete an enterprise governance program for CAP. Also, create development standards for CAP. This ties to the technology service portfolio action plan. Accomplishment: All current technology services are listed on the Service Catalog site. The Technology Review Board processes were updated and reviewed all technology framework decisions as part of the technology governance program.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Project Reliability	Maintain effective information technology systems	Action Plan: Improve the IT asset management process. The expected outcome was to develop a long-term integrated technology life-cycle management plan, and include Operational Technology and SCADA where applicable. Accomplishment: The long range technology plans were updated and are used for budgeting, planning, and upgrades. A 12, 24, 36 month plan was developed with the main technology divisions. These plans are used for coordinating complicated integrations with long-term projects like SCADA and Microwave systems.
		Action Plan: Improve the management of information that can be shared. The expected outcome was to research and implement technology that allows information to be shared and consumed. These projects will support the management of CAP assets and drive maintenance decision making. Accomplishment: CAP worked with outside research firms to select the appropriate platform for data integration and analytics. The Data Integration project completed two proofs of concepts to help with the selection of a software platform. Two phases of this project will complete in 2019 through upgrades to custom development projects.
		Action Plan: Improve information security. The expected outcome was to validate current technology security practices, identify new threats, complete assessments and update tools needed to secure CAP information annually. Accomplishment: An outside security company was selected to review CAP security practices and tools. A comprehensive report with management action items was developed and includes a 12, 24, 36 month information security plan.
		Action Plan: Define and buildout CAP's mobile workforce. The expected outcome was to provide direction to the Mobility committee. In addition, research and implement the systems needed to share data internally and externally to CAP. Accomplishment: The Gartner research firm reviewed CAP mobile practices and future mobile projects. The 2019 technology portfolio includes projects that allow mobile access to CAP applications. These systems include Content Server, time approval and purchase requisition approvals. Mobile access for pumping plant inspections and fire protection preventive maintenance will complete in 2019.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Project Reliability	Maintain preparedness for business and infrastructure disasters and threats	Action Plan: Prepare and plan for potential threats to CAP water operations, including refreshers of previous infrastructure threat assessments. The expected outcome was to complete an annual mock BDR exercise and verify critical systems can be recovered with the RTO / RPO objectives. Complete no less than three annual IT Disaster Recovery tests on critical IT systems and applications to ensure recovery. In addition, complete Department of Homeland Security SCADA assessment and complete action items. Accomplishment: The technology departments completed three off site business disaster recovery exercises. One exercise included the CAP business units verifying new processes are effective. All information security audits and assessments are reviewed in monthly information security meetings. The data storage and backup system upgrades will be completed in 2019. These upgrades will allow for faster recovery times and additional remote access.

Business Goals

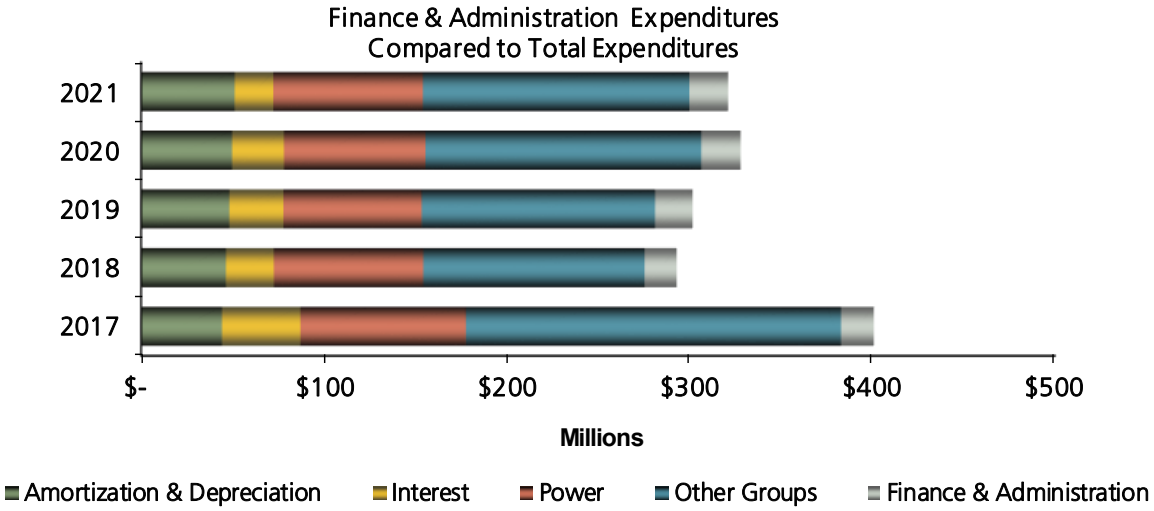
Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Finance	Effectively communicate financial issues to Board, customers and stakeholders	Action Plan: Continually evaluate and resolve financial threats. Timely identify the magnitude of potential issues and provide recommendations and options to mitigate threats. Ensure independent audit reviews and other required financial communications are performed timely and accurately. Ascertain that reports and communications are provided in required time frames. Provide periodic updates to the Board, as appropriate. Compile financial reporting and communications list, and meeting reporting deadlines. Expected Outcome: Evaluate impacts of official accounting changes and inform management and Board on financial implications, while complying 100% with all governmental accounting policies and procedures.
	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	Action Plan: Evaluate various methodologies for rates and capital charges for consideration for Stakeholder discussions and ultimate Board review and decisions. Expected Outcome: Host Capital Charge Roundtable annually to engage M&I customers and provide feedback to the Board.
	Coordinate projected uses of funds with appropriate sources of financing	Action Plan: Evaluate how costs of major expenditures can be properly allocated to the beneficiaries of those expenditures under appropriate contracts and policies. Expected Outcome: Continued monitoring while maintaining the integrity of the source and use of funds and ensure compliance to contracts, agreements and policies. Develop recommendations for property tax proceeds in 2020 and 2021.
Project Reliability	Maintain high levels of skills and job proficiency among employees	Action Plan: Provide employee development processes and programs to improve job performance and capabilities. Expected Outcome: Strategically developing new employees and current employees in new positions to establish skill levels required to maintain customer service levels.
	Maintain preparedness for business and infrastructure disasters and threats	Action Plan: Complete updates to pandemic status; updating Extraordinary Event policy and Pandemic section of the Emergency Operations Plan. Conduct tabletop exercises with a mock pandemic / workforce shortage scenario every three years with next scheduled exercise in 2020. Expected Outcome: Complete awareness and application of business disaster recovery plans at the department level.

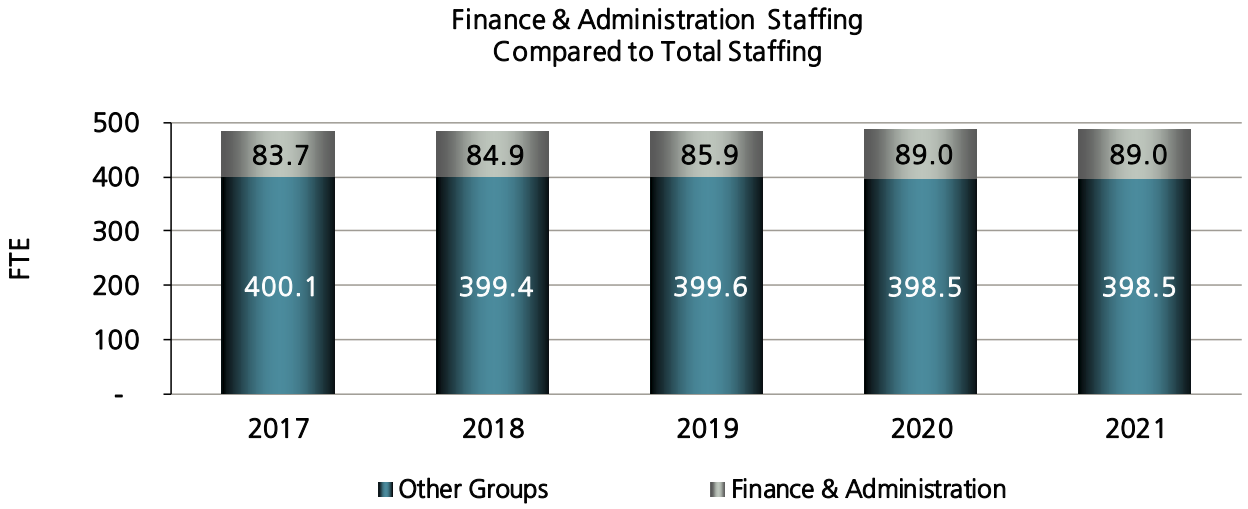
Business Goals

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Project Reliability	Maintain effective information technology systems	Action Plan: Identify, assess & develop custom applications to integrate into a standard analytics platform. Expected Outcome: Complete the data analytics program to allow data to be utilized by departments to efficiently manage CAP assets.
		Action Plan: Move technology governance to the next maturity level in five areas (Technology decision-making, technology business outcomes, technology strategic planning, technology accountability, technology risk). Expected Outcome: Create a technology enterprise governance program for CAP. Create development standards for CAP.
		Action Plan: Assess and pilot technologies such as AI and machine learning with the goal of implementing solutions for business operations. Expected Outcome: Research and implement technology that allows information to be shared and consumed.
		Action Plan: Validate security posture through security assessments and audits to improve the confidentiality, integrity and availability of CAP's data. Implement new tools to harden the information security environment. Expected Outcome: Validate current security technology practices, identify new threats, complete assessments and update tools needed to secure CAP information
		Action Plan: Design and implement technology solutions that will reduce manual processes and improve business processes for admin and field employees. Expected Outcome: Provide direction to the Mobility committee and provide systems needed to securely share data internally and externally.
	Maintain preparedness for business and infrastructure disasters and threats	Action Plan: Complete mock business disaster recovery (BDR) exercises in 2020 / 2021. Execute 3 BDR tests including a biannual offsite exercise. Validate all 18 critical systems can be recovered and available in less than 24 hours. Include testing of one non-critical system per test. Update the security awareness training program based on emerging threats and maintain annual awareness training compliance requirements. Expected Outcome: Validate recovery processes and employees' ability to access the systems remotely. Complete annual security awareness training and one penetration test/audit to validate the security of CAP data.

Finance & Administration
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 7,060	$ 7,307	$ 7,434	**$ 7,865**	**$ 8,101**
Outside services	6,264	6,162	7,428	**9,846**	**9,432**
Materials & supplies	1,179	1,383	1,370	**1,407**	**1,310**
Other expenses	2,010	1,732	2,051	**2,356**	**2,387**
Total Operating Expenses	$ 16,513	$ 16,584	$ 18,283	**$ 21,474**	**$ 21,230**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 16,513	$ 16,584	$ 18,283	**$ 21,474**	**$ 21,230**
CAGRD	-	-	-	**-**	**-**
Other Funds and Accounts	-	-	-	**-**	**-**
Total Operating Expenses	$ 16,513	$ 16,584	$ 18,283	**$ 21,474**	**$ 21,230**
Capital Expenditures	1,406	992	2,183	**-**	**35**
Total Expenditures	$ 17,919	$ 17,576	$ 20,466	**$ 21,474**	**$ 21,265**
Staffing (FTE)	83.7	84.9	85.9	**89.0**	**89.0**





Finance & Administration
Enterprise Risk and Records Management

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 568	$ 654	$ 660	$ 685	$ 705
Outside services	69	341	477	767	730
Materials & supplies	13	6	10	3	3
Other expenses	1,421	1,422	1,474	1,669	1,794
Total Operating Expenses	$ 2,071	$ 2,423	$ 2,621	$ 3,124	$ 3,232
Expenditures by Fund					
Operating Expenses					
General Fund	$ 2,071	$ 2,423	$ 2,621	$ 3,124	$ 3,232
CAGRD Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	$ 2,071	$ 2,423	$ 2,621	$ 3,124	$ 3,232
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 2,071	$ 2,423	$ 2,621	$ 3,124	$ 3,232
Staffing (FTE)	6.5	7.4	7.6	8.0	8.0

Finance & Administration
Finance & Accounting

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 1,390	$ 1,406	$ 1,479	$ 1,566	$ 1,614
Outside services	196	196	1,078	1,423	1,541
Materials & supplies	14	15	15	8	11
Other expenses	31	33	36	62	58
Total Operating Expenses	$ 1,631	$ 1,650	$ 2,608	$ 3,059	$ 3,224
Expenditures by Fund					
Operating Expenses					
General Fund	$ 1,631	$ 1,650	$ 2,608	$ 3,059	$ 3,224
CAGRD Account					
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 1,631	$ 1,650	$ 2,608	$ 3,059	$ 3,224
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 1,631	$ 1,650	$ 2,608	$ 3,059	$ 3,224
Staffing (FTE)	17.7	17.4	18.6	19.0	19.0

Finance & Administration
INFORMATION TECHNOLOGY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 3,310	$ 3,363	$ 3,438	**$ 3,655**	**$ 3,765**
Outside services	4,414	4,335	4,458	**6,147**	**5,459**
Materials & supplies	595	578	628	**687**	**687**
Other expenses	503	229	465	**551**	**460**
Total Operating Expenses	$ 8,822	$ 8,505	$ 8,989	**$ 11,040**	**$ 10,371**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 8,822	$ 8,505	$ 8,989	**$ 11,040**	**$ 10,371**
CAGRD Account	-	-	-	**-**	**-**
Other Funds and Accounts	-	-	-	**-**	**-**
Total Operating Expenses	$ 8,822	$ 8,505	$ 8,989	**$ 11,040**	**$ 10,371**
Capital Expenditures	1,406	992	2,183	**-**	**-**
Total Expenditures	$ 10,228	$ 9,497	$ 11,172	**$ 11,040**	**$ 10,371**
Staffing (FTE)	33.2	32.6	32.6	**34.0**	**34.0**

Finance & Administration
SUPPLY CHAIN & FACILITIES

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 1,792	$ 1,884	$ 1,857	**$ 1,959**	**$ 2,017**
Outside services	1,585	1,290	1,415	**1,509**	**1,702**
Materials & supplies	557	784	717	**709**	**609**
Other expenses	55	48	76	**74**	**75**
Total Operating Expenses	$ 3,989	$ 4,006	$ 4,065	**$ 4,251**	**$ 4,403**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 3,989	$ 4,006	$ 4,065	**$ 4,251**	**$ 4,403**
CAGRD Account	-	-	-	**-**	**-**
Other Funds and Accounts	-	-	-	**-**	**-**
Total Operating Expenses	$ 3,989	$ 4,006	$ 4,065	**$ 4,251**	**$ 4,403**
Capital Expenditures	-	-	-	**-**	**35**
Total Expenditures	$ 3,989	$ 4,006	$ 4,065	**$ 4,251**	**$ 4,438**
Staffing (FTE)	26.3	27.5	27.1	**28.0**	**28.0**


CAP
CENTRAL ARIZONA PROJECT

Legal Services

Mission: The Legal Services Group provides timely, effective and high-quality legal services to the Board of Directors, management and staff of the CAWCD.

Responsible for managing timely, effective and high-quality legal services to the CAWCD Board, management and staff in order to assure compliance with laws, regulations and policies applicable to CAWCD and support achievement of the District's strategic and business objectives.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Continue to work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA water with the expected outcome of developing an appropriate strategy for reallocation of CAP NIA water. Accomplishment: CAWCD legal staff has worked with ADWR, Reclamation and other stakeholders on the CAP NIA reallocation process. However, due to factors outside CAWCD's control, finalization of that process has been delayed.
	Reduce risk associated with CAP's junior priority	Action Plan: Identify, develop and implement programs to address near-term risks to Colorado River water supply and the structural deficit. The expected outcome was for the CAWCD Board approving a Drought Contingency Plan or alternative and an Arizona intrastate implementation plan for DCP. In addition, routine updates be provided to the Board and key stakeholders on Colorado River conditions, as well as the staff being actively engaged in conservation and forbearance activities in the Basin. Accomplishment: The expected outcome has been achieved.
	Complete and implement Water Wheeling Agreements	Action Plan: Support CAP staff and CAP Board in development of water quality standards for wheeling non-project water through the CAP. The expected outcome was to finalize any necessary agreements to implement the System Use Agreement and develop the first delivery agreements to wheel non-project water through the CAP. Accomplishment: The Standard Form of CAWCD's Wheeling Agreements has been developed and approved. CAP has not entered into any agreements to date.
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: Develop and implement revenue generation mechanisms (e.g., bonding, rates, fees) that are sufficient to carry out the Water Supply Acquisition Program. The expected outcome was to complete studies of the existing CAGRD rate structure and to provide a basis for recommending changes that would result in greater revenue stability and ensure equity among members. Accomplishment: The expected outcome has been achieved. The Board approved the updated Activation Fee Schedule in early 2019. The Board approved an approach for financing a portion of the GRIC water supply acquisition.

ACCOMPLISHMENTS

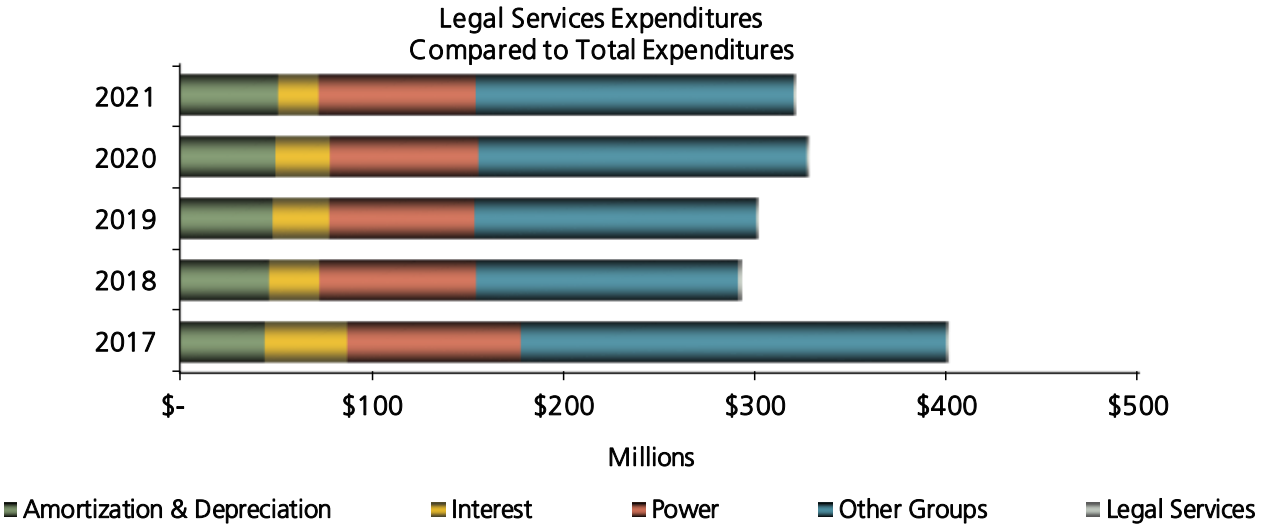
Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: New CAGRD water supplies with the expected outcome of finalizing the transfer of a Colorado River water supply for replenishment purposes. Accomplishment: Although there was no transfer of Colorado River Water Supply, CAWCD legal staff and CAGRD worked with the GRIC to complete a water supply acquisition that will meet the vast majority of the CAGRD's replenishment obligations through 2035.
Power	Maintain existing generation resources	Action Plan: Prepare for eventual replacement of NGS through implementation of the post-NGS Power Strategy, which includes the evaluation of alternative generation resources. The expected outcome was to support the process of finding and securing alternative power resources to replace NGS. Accomplishment: CAWCD legal staff worked with Power Management on contracts to obtain power for post-NGS and defended litigation seeking to require CAP to continue purchasing power from NGS if it remained open post 2019.
		Action Plan: Prepare for NGS decommission with the expected outcome of assisting in the management of CAP's obligations with the decommissioning of NGS. Accomplishment: CAWCD legal staff is assisting in working toward this goal and are prepared for this undertaking post 2019.

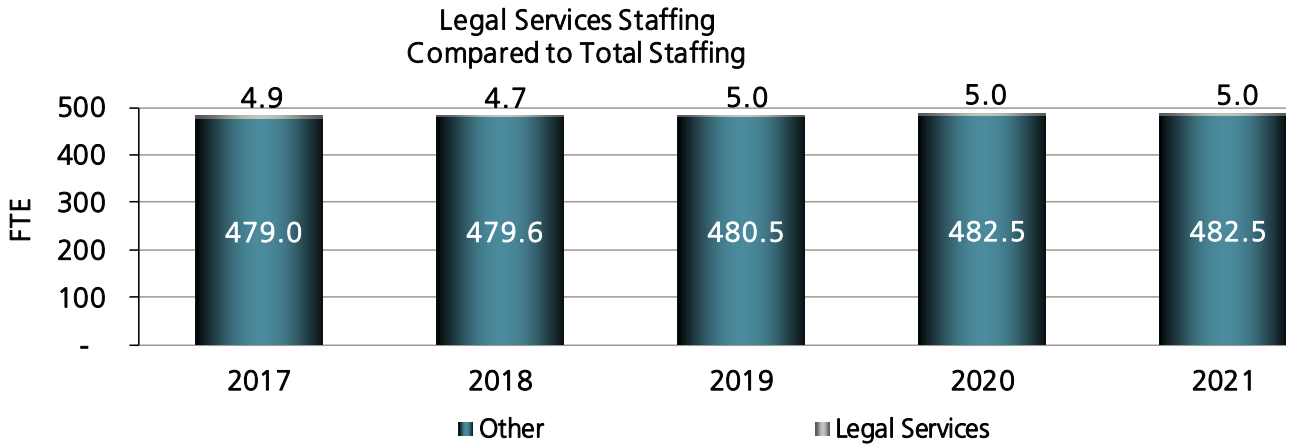
Business Goals

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA water. Expected Outcome: Develop an appropriate strategy for reallocation of CAP NIA water.
	Complete and Implement Water Wheeling Agreements	Action Plan: Support CAP staff and CAP Board in development and implementation of a standard form wheeling agreement and associated firming and wheeling contracts. Expected Outcome: Work with CAWCD staff to implement the program for wheeling non-Project Water, including associated agreements.
	Optimize reliability and sustainability of CAP water supply	Action Plan: Participate in and assist with implementation of Colorado River management. Expected Outcome: Participate in reconsultation under the 2007 Guidelines (to extend/modify/renew the Guidelines beyond 2026). CAWCD management and staff are members of key Basin technical, policy and negotiation groups. Support and provide assistance for the implementation of interstate and intrastate DCP agreements.
	Implement recovery plan	Action Plan: Provide legal support in the development and implementation of recovery agreements. Expected Outcome: Work with staff to develop and implement recovery agreements
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: Continue to meet the CAGRD's long-term replenishment obligations. Expected Outcome: Work with CAGRD to acquire water supplies to meet replenishment obligations and implementation of the GRIC water supply acquisition agreement.
Power	Maintain existing generation resources	Action Plan: Prepare for NGS decommission with the expected outcome of assisting in the management of CAP's obligations with the decommissioning of NGS. Expected Outcome: Assist in the management of CAP's obligations with the decommissioning of NGS post 2019.
	Secure reliable, sustainable, cost-effective generation resources	Action Plan: Provide legal support in the evaluation of alternative generation resources. Expected Outcome: Support the process of finding and securing alternative power resources to replace NGS.

Legal Services
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 773	$ 754	$ 783	$ 811	$ 835
Outside services	704	1,342	475	460	470
Materials & supplies	2	5	2	4	4
Other expenses	57	61	76	88	88
Total Operating Expenses	$ 1,536	$ 2,162	$ 1,336	$ 1,363	$ 1,397
Expenditures by Fund					
Operating Expenses					
General Fund	$ 1,536	$ 2,162	$ 1,336	$ 1,363	$ 1,397
CAGRD					
Other Funds and Accounts					
Total Operating Expenses	$ 1,536	$ 2,162	$ 1,336	$ 1,363	$ 1,397
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 1,536	$ 2,162	$ 1,336	$ 1,363	$ 1,397
Staffing (FTE)	4.9	4.7	5.0	5.0	5.0

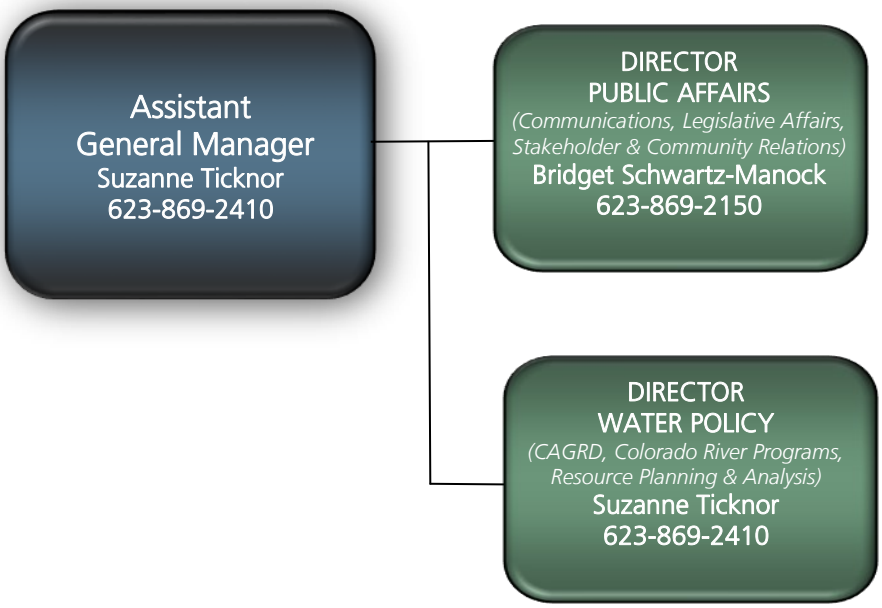





CAP
CENTRAL ARIZONA PROJECT

External Affairs - Assistant GM

Mission: Provides leadership in overseeing communications and coordination with external entities to support the Board's Strategic Plan through stakeholder relations and CAWCD policy development and implementation



Manages and oversees external and internal communications, inter-governmental relations, stakeholder outreach, legislative positioning, board relations and strategic planning efforts in support of the Board's Strategic Plan.

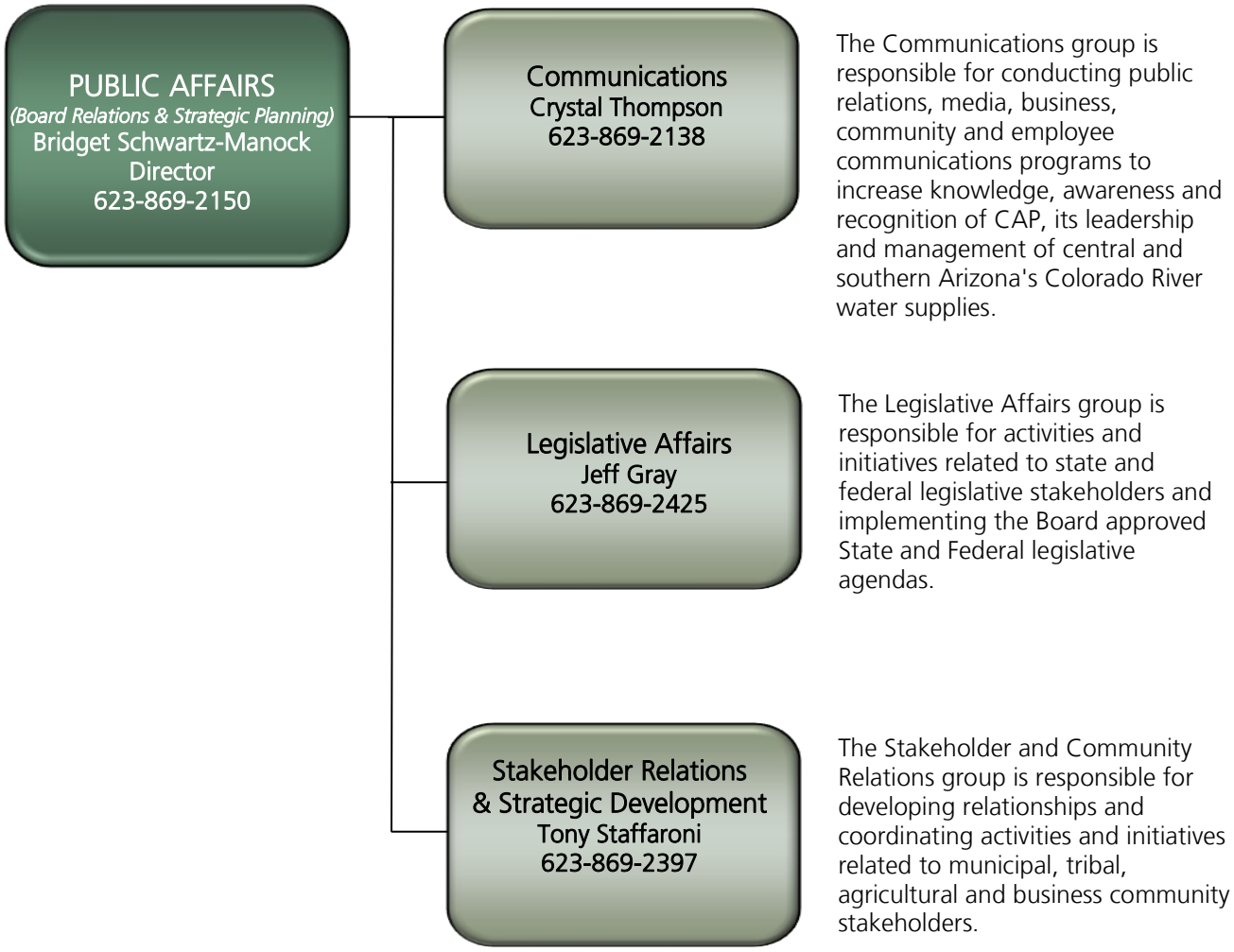
Manages and oversees long-range planning, policy analysis and development and program implementation for the CAP Service Area, the Colorado River and the CAGRD.


CAP
CENTRAL ARIZONA PROJECT

Public Affairs

Mission: Public Affairs will strategically advance CAP's mission by developing a consistent and unified voice and by building collaborative relationships with internal and external stakeholders. Public Affairs will be a leader in outreach, partnership and communications to position CAP as a valued, respected innovator and collaborator in water management regionally and nationally.

CAP's Public Affairs Department has five main functions: Board relations and support, oversight of strategic planning, communications, legislative affairs, and stakeholder and community relations,



ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Leadership & Public Trust	Improve understanding about CAP and associated water, power, and infrastructure issues	Action Plan: Increase opportunities for Board interaction with their peers in other organizations. The expected outcome was to identify and host meetings with peers in other organizations to increase opportunities for board interaction. (Examples include: MWD Board of Directors, mayors, council members and SRP Board of Directors.) Accomplishment: Board interaction with peers continues to increase, with numerous opportunities taking place throughout 2018 and 2019. Board members had interactions with mayors, council members, state legislators, MWD Board of Directors, SNWA Board of Directors, and tribal council members from Gila River Indian Community and Colorado River Indian Tribes.
		Action Plan: Maintain and evolve the Protect Lake Mead campaign. The expected outcome was to increase the number of social media followers by 25% by end of 2018 and 35% by end of 2019. Accomplishment: The Protect Lake Mead Campaign was incorporated into the Know Your Water Campaign. The Know Your Water Campaign consistently increased social media following on every platform, exceeding the 35% increase by the end of 2019.
		Action Plan: Provide media training for all executive leadership including Board members, Directors and designated Managers. The expected outcome was that by the end of 2019, 75% of executive leadership will have completed media training. Accomplishment: Media training was completed in 2019 for Board members, Management Council members and designated Managers, with 95% of executive leadership completed.
		Action Plan: Serve as point of contact or identify appropriate spokespersons for strategic communications and message delivery to external audiences, and elected or appointed officials. The expected outcome was to conduct Internal Public Affairs training for executive staff and managers by 2018 and create and develop internal Public Affairs policy. Accomplishment: CAP has reinforced the need to centralize management of media requests and Public Affairs managed and directed media requests on a case by case basis as needed to identify the appropriate spokesperson. Staff in departments with high media interest were trained on media request procedures in 2018.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Survey customers and key stakeholders on a periodic basis. The expected outcome was to develop and administer a stakeholder survey. Accomplishment: The stakeholder survey was completed in 2018 as part of the Customer Service Task Force. Customer feedback forms were introduced in 2019 to gain additional feedback on an ongoing basis.
Leadership & Public Trust	Improve relationships with customers and stakeholders	Action Plan: Regularly meet and engage with a range of CAP stakeholders and interests. The expected outcome of increasing stakeholder outreach meetings by 25% by end of 2019. Accomplishment: Public Affairs exceeded the goal of a 25% increase in stakeholder outreach meetings by the end of 2019. Board members and staff met and engaged with a broad range of stakeholders from municipal, tribal and agricultural interests throughout the CAP service area. Outreach included attending community events, joint coordination meetings and individual meetings, as well as hosting regional outreach events, roundtable meetings and tours of CAP.
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Actively influence, develop and implement messaging on Colorado River and other water and resource decision making. The expected outcome that the Public Affairs & Water Policy staff will coordinate with executive leadership to actively influence the development and implementation of Colorado River messaging. Accomplishment: Public Affairs coordinated with Water Policy and other CAP staff to work with ADWR, BOR and other interests regarding Colorado River and Drought Contingency Plan messaging, including co-hosting the DCP Steering Committee, presenting to legislative committees and working closely with relevant stakeholders.
Power	Maintain existing generation resources until appropriate alternatives are available	Action Plan: Monitor and aggressively protect and promote CAP's interests relating to NGS. The expected outcome was to support the Power Task Force. Accomplishment: Public Affairs actively monitored all federal, state and tribal activities regarding the closure of NGS and supported the Power Task Force, which concluded in 2017.

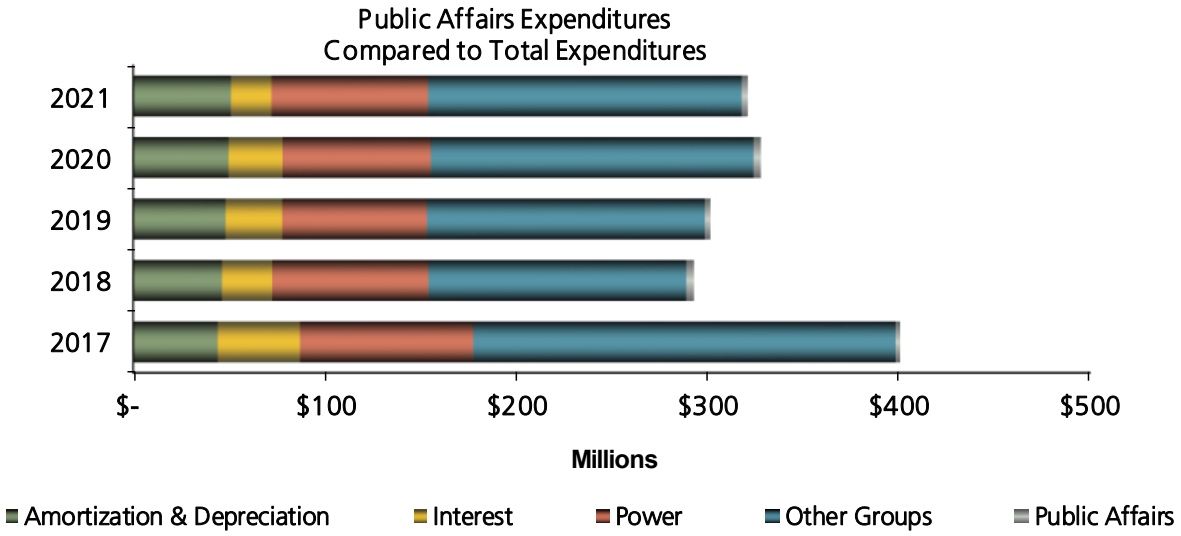
Business Goals

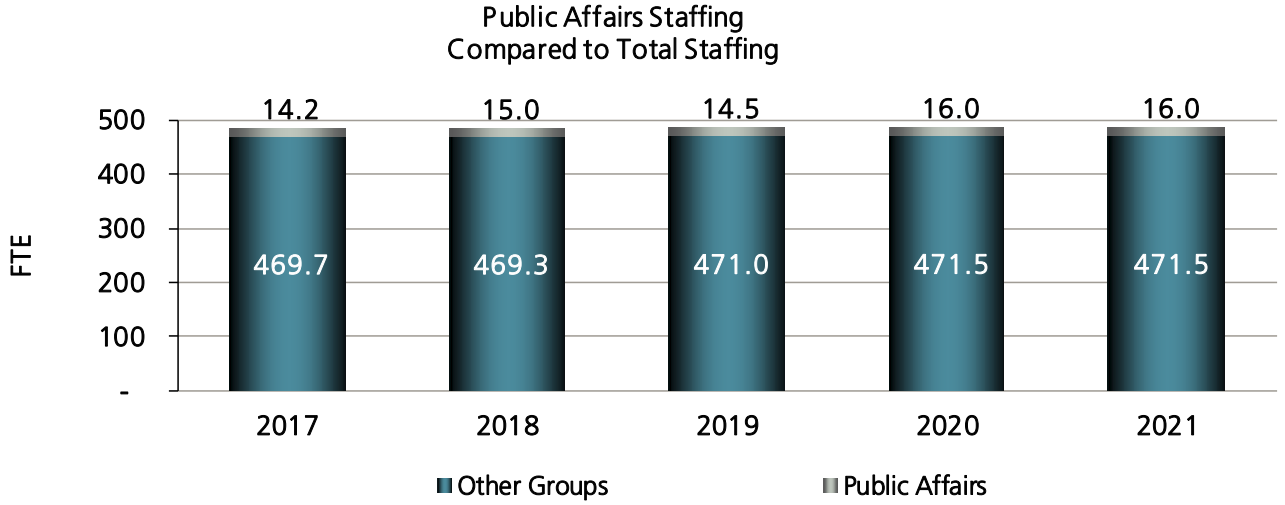
Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Leadership & Public Trust	Improve understanding about CAP and associated water, power and infrastructure issues	Action Plan: Increase opportunities for Board interaction with their peers on other organizations Expected Outcome: Identify and host meetings with peers in other organizations to increase opportunities for Board interaction. (Examples include: MWD Board of Directors, mayors, councilmembers and tribal councilmembers.)
		Action Plan: Develop a proactive communications plan to manage drought contingency planning and shortage declaration. Expected Outcome: Create public awareness campaign to advance Board policies. Develop outreach plan with appropriate-level informational materials to target external stakeholders, general public and employees.
	Improve relationships with customers and stakeholders	Action Plan: Regularly meet and engage a range of CAP stakeholders and interests. Expected Outcome: Facilitate regular stakeholder outreach meetings across the three county service area, representative of all stakeholder classes. Host Beyond the Buzz employee meetings.
		Action Plan: Continue improvement of customer service processes identified by the Customer Service Task Force. Expected Outcome: Engage CAP Board discussion, identification and adoption of proposed new action plans to enhance CAP customer service.
	Continually inform current water leadership	Action Plan: Continue outreach to local, state and federal officials to enhance their understanding of CAP and its economic value to the State, as well as critical water, power and infrastructure issues. Expected Outcome: Maintain regular communication and relationships with local, state and federal officials. Actively engage in business and community organizations to ensure understanding of CAP value and role in the economy.
	Equip Board members to effectively represent CAP and its positions	Action Plan: Develop a new Board Strategic Plan. Expected Outcome: Work with consultant and engage the Board in the development of a new strategic plan.

Public Affairs

BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 1,380	$ 1,465	$ 1,425	**$ 1,636**	**$ 1,694**
Outside services	712	2,053	1,165	**1,841**	**1,199**
Materials & supplies	16	30	31	**67**	**62**
Other expenses	239	438	323	**258**	**258**
Total Operating Expenses	$ 2,347	$ 3,986	$ 2,944	**$ 3,802**	**$ 3,213**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 2,347	$ 3,986	$ 2,944	**$ 3,802**	**$ 3,213**
Other Funds and Accounts	-	-	-	**-**	**-**
Total Operating Expenses	$ 2,347	$ 3,986	$ 2,944	**$ 3,802**	**$ 3,213**
Capital Expenditures	-	-	-	**-**	**-**
Total Expenditures	$ 2,347	$ 3,986	$ 2,944	**$ 3,802**	**$ 3,213**
Staffing (FTE)	14.2	15.0	14.5	**16.0**	**16.0**






CAP
CENTRAL ARIZONA PROJECT

Water Policy

Mission: The Water Policy Group is responsible for working closely with the General Manager, the Board of Directors, employees and stakeholders for long-range planning, policy analysis and development and program implementation for the CAP Service Area, the Colorado River, and the CAGRD.

Responsible for ensuring that CAGRD groundwater replenishment obligation is met. Develops and implements CAGRD Plan of Operation, administers CAGRD functions, acquires water supplies needed to meet CAGRD obligations.

Responsible for protecting CAP's interests in the Colorado River. Primary focuses are in the areas of climate change, assessing Colorado River water supplies and sustainability, binational cooperative efforts and Colorado River management.

Responsible for long-range water resource planning and policy analysis within the CAP service area, including planning support for the CAGRD and initiatives of the Board and the Management Council.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Water Supply	Optimize reliability and sustainability of CAP water supply .	Action Plan: Actively influence, participate in and implement Colorado River management decisions. The expected outcome was to have both technical and legal analysis performed in preparation for reconsultation under the 2007 Guidelines (to extend/modify/ renew the Guidelines beyond 2026). In addition, to having management and staff be members of key basin technical, policy and negotiation groups. Accomplishment: A portion of this action item is ongoing. Management and staff are members of key Basin technical, policy and negotiation groups related to Drought Contingency Planning, binational programs and other critical programs related to the Colorado River Basin. A preliminary legal and technical analysis will be completed by the end of 2019 to prepare CAWCD for reconsultation under the 2007 Guidelines.
		Action Plan: Actively participate in decision making regarding binational programs. The expected outcome was to have CAP staff review and comment on decree accounting related to binational Intentionally Created Surplus (ICS) and associated conservation programs related to implementation of Minute 319. In addition, to having management and staff be members of key binational technical, policy and negotiation groups related to execution of Minute 32x, and other binational efforts, including augmentation. Accomplishment: This action item is ongoing. Staff are participating in the Binational Work Groups established in Minute 323. The Desalination Work Group has completed the preparation of a scope of work for a study of desalination opportunities in the Sea of Cortez to benefit US and Mexico, and the Binational Desalination Study was initiated in 2019. Staff are also participating in the Hydrology, Projects, Salinity and AAC work groups.
	Reduce risk associated with CAP's junior priority	Action Plan: Identify, develop and implement programs to address near-term risks to Colorado River water supply and the structural deficit with the expected outcome that the Board approved a Drought Contingency Plan or alternative and the Arizona intrastate implementation plan for the DCP. As well as providing routine updates to the Board and key stakeholders on Colorado River conditions; and staff are actively engaged in conservation and forbearance activities in the Basin. Accomplishment: This action item is complete. The CAWCD Board approved the interstate LBDCP Agreements in 2018 and approved the agreements that comprise the AZ DCP Implementation Plan, to which CAWCD is a party, in 2019.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Water Supply	Manage risk and opportunities posed by climate change	Action Plan: Conduct a scenario planning process to develop climate change adaptation strategies. The expected outcome was to have a completed CAP Climate Adaptation Plan. Accomplishment: This item has been completed. The CAP Climate Adaptation Plan was completed at the end of 2018. The Plan and an executive summary were released in early 2019.
	Implement recovery plan	Action Plan: Implement recovery plan in cooperation with stakeholders to improve connection between Arizona Water Banking Authority storage and CAP recovery. The expected outcome was to have updated and executed the intergovernmental agreement (IGA) between the AWBA and CAWCD. The updated agreement would cover credit distribution procedures and related policies; as well as an update and completion for the 2014 Joint Recovery Plan with meaningful input from stakeholders. Additional expectations was to have the Ad Hoc Recovery committee reconvened and for CAP to co-lead the process with AWBA and ADWR. Accomplishment: This item has been completed. The Updated IGA between CAWCD and the AWBA was approved and executed in the fall of 2018. The Ad Hoc Recovery committee was reconvened in early 2018 as the Recovery Planning Advisory Group "RPAG". The RPAG has met consistently through 2018 and early 2019. An addendum to the 2014 Joint Recovery Plan will be developed with AWBA and ADWR by the end of 2019 or early 2020, completing the RPAG process.
		Action Plan: Develop cooperative agreements to implement recovery (where appropriate), including direct recovery and recovery through exchange. The expected outcome was to have agreements signed for recovery capacity, including recovery exchange agreements and indirect recovery partnership agreements. Accomplishment: This action item is ongoing. Several agreements for recovery capacity have been executed.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Water Supply	Complete and implement Water Wheeling Agreements	Action Plan: Complete and implement a standard form wheeling agreement and associated firming and wheeling contracts. The expected outcome was to have a standard form wheeling agreement approved by CAP and BOR; and a standard form Firming Agreement and Exchange Implementation Agreement finalized and approved by the Bureau. In addition, have the CAP and Reclamation finalize the uniform water quality standards for wheeling non-project water; and continue working with the Board Water Quality Standards Task Force. Accomplishment: This action item is complete. The CAWCD Board approved the standard form wheeling agreement as part of the approval of the System Use Agreement. The Exchange Implementation Agreement will be finalized and approved by the United States in 2019, as part of the approval of the CAGRD GRIC/GRWS water supply acquisition. Finally, the Board approved uniform water quality standards for wheeling non-Project water in 2019.
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: Aggressively acquire water supplies as outlined in the 2015 Plan of Operation and the Water Supply Acquisition Program. The expected outcome was to acquire additional water supplies sufficient to meet increasing replenishment obligations through CY2018, as well as continuing to acquire water supplies for the Replenishment Reserve in Phoenix and Tucson AMAs. Accomplishment: This action item is complete. On January 31, 2019, the CAGRD and the Gila River Indian Community signed a historic water supply acquisition agreement. The agreement provides a substantial wet water supply to the CAGRD over the next 25 years.
		Action Plan: Develop and implement revenue generation mechanisms (i.e., bonding, rates, fees) that are sufficient to carry out the Water Supply Acquisition Program. The expected outcome was to have completed the studies of the existing CAGRD rate structure to provide a basis for recommending changes that would result in greater revenue stability and ensure equity among members. Accomplishment: This action item is complete. The Board approved the updated Activation Fee Scheduled in early 2019. The Board approved an approach for financing a portion of the GRIC water supply acquisition.

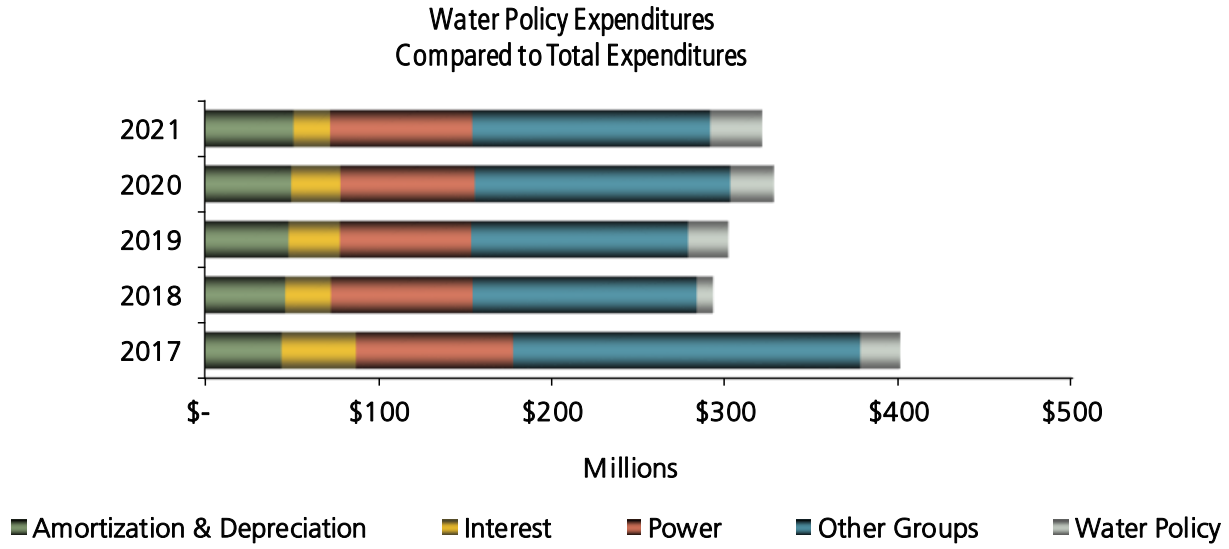
Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Ensure adequate funding of CAGRD administration and long-term operations. The expected outcome was that the current studies evaluation of the existing CAGRD rate structure be concluded and those studies provide a basis for recommending changes to the rate structure to provide greater revenue stability and to ensure equity among members. Accomplishment: This action item is complete. A study regarding the CAGRD rate structure for the purpose of recommending changes that would support greater revenue stability for the CAGRD was completed in 2018. The Board approved the updated Activation Fee Scheduled in early 2019.
Replenishment	Review CAGRD status as compared to projections in the Plan of Operation	Action Plan: Schedule annual updates to the Board and Legislature on CAGRD obligations and activities. The expected outcome was to have the staff continue to provide annual updates on the CAGRD to the Board and to the State legislature. Accomplishment: This is an ongoing action item. In February and March of 2019, Board officers and General Manager Cooke participated in briefings to the Arizona legislature.
		Action Plan: Continue to prepare Annual Operations Report detailing current enrollment to corresponding replenishment obligations as a supplement to the annual report filed with ADWR. The expected outcome was to have the Annual Operations Report prepared each year and transmitted to ADWR. Accomplishment: This is an ongoing action item. In Q3 of 2018, CAGRD staff submitted the 2017 Conservation District Annual Report to ADWR. In Q4 of 2018, CAGRD staff provided an overview of the 2017 Annual Operations Report to the CAGRD and Underground Storage Committee.

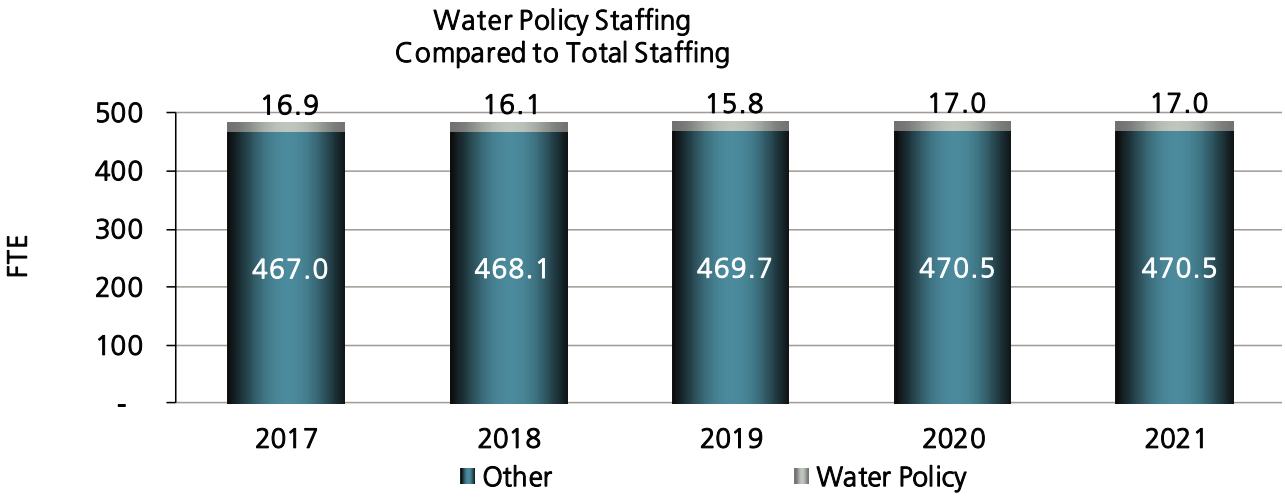
BUSINESS GOALS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Action Plan: Continue to meet the CAGRD's long-term replenishment obligations. Expected Outcome: Continue to acquire water supplies to meet replenishment obligations, as outlined in the CAGRD Water Supply Program's updated acquisition strategy and implement the GRIC water supply acquisition agreement.
	Review CAGRD status as compared to projections in the Plan of Operations	Action Plan: Continue to prepare annual operations report detailing current enrollment to corresponding replenishment obligations as a supplement to the annual report filed with ADWR. Expected Outcome: The Annual Operations Report has been prepared each year and transmitted to ADWR.
Water Supply	Implement Recovery Plan	Action Plan: Evaluate potential need for treatment works to implement recovery operations Expected Outcome: New water quality considerations are included in all Direct Recovery Projects.
	Complete and implement Water Wheeling Agreements	Action Plan: Complete and implement a standard form wheeling agreement and associated firming and wheeling contracts. Expected Outcome: CAWCD staff continues to implement the program for wheeling non-Project Water, including associated agreements.
	New water supplies for the CAP service area	Action Plan: Assess the capacity of existing CAP infrastructure to facilitate water wheeling. Expected Outcome: An initial system improvement project for wheeling has been identified for submittal to BOR.
	Optimize reliability and sustainability of CAP water supply	Action Plan: Actively influence, participate in and implement Colorado River management decisions. Expected Outcome: 1) Prepare for and participate in reconsultation under the 2007 Guidelines (to extend/modify/renew the Guidelines beyond 2026). In addition, CAWCD management and staff are members of key Basin technical, policy and negotiation groups. 2) Implement interstate and intrastate DCP agreements.

Water Policy
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 1,642	$ 1,455	$ 1,433	$ 1,654	$ 1,703
Outside services	1,501	2,228	2,562	2,460	3,998
Water for recharge	16,785	2,806	15,178	14,162	17,329
Materials & supplies	2	2	1	1	1
Other expenses	3,213	3,043	3,978	6,873	6,870
Total Operating Expenses	$ 23,143	$ 9,534	$ 23,152	$ 25,150	$ 29,901
Expenditures by Fund					
Operating Expenses					
General Fund	$ 4,941	$ 5,558	$ 6,401	$ 9,175	$ 10,782
CAGRD Account	18,202	3,976	16,751	15,975	19,119
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 23,143	$ 9,534	$ 23,152	$ 25,150	$ 29,901
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 23,143	$ 9,534	$ 23,152	$ 25,150	$ 29,901
Staffing (FTE)	16.9	16.1	15.8	17.0	17.0





Water Policy
CAGRD

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 894	$ 771	$ 696	$ 856	$ 882
Outside services	612	312	564	402	450
Water for recharge	16,785	2,806	15,178	14,162	17,329
Materials & supplies	-	1	1	1	1
Other expenses	30	86	312	554	457
Total Operating Expenses	$ 18,321	$ 3,976	$ 16,751	$ 15,975	$ 19,119
Expenditures by Fund					
Operating Expenses					
General Fund	$ 119	$ -	$ -	$ -	$ -
CAGRD Account	18,202	3,976	16,751	15,975	19,119
Other Funds and Accounts					
Total Operating Expenses	$ 18,321	$ 3,976	$ 16,751	$ 15,975	$ 19,119
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 18,321	$ 3,976	$ 16,751	$ 15,975	$ 19,119
Staffing (FTE)	9.0	9.2	8.4	9.0	9.0

Water Policy
COLORADO RIVER PROGRAMS

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 376	$ 392	$ 408	$ 420	$ 432
Outside services	718	1,786	1,706	1,835	2,925
Materials & supplies	1	1	-	-	-
Water for recharge					
Other expenses	3,171	2,954	3,648	3,794	3,388
Total Operating Expenses	$ 4,266	$ 5,133	$ 5,762	$ 6,049	$ 6,745
Expenditures by Fund					
Operating Expenses					
General Fund	$ 4,266	$ 5,133	$ 5,762	$ 6,049	$ 6,745
CAGRD Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 4,266	$ 5,133	$ 5,762	$ 6,049	$ 6,745
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 4,266	$ 5,133	$ 5,762	$ 6,049	$ 6,745
Staffing (FTE)	4.0	4.0	4.0	4.0	4.0

Water Policy

Resource Planning & Analysis

(Dollars in Thousands)	2017 Actuals	2018 Actuals	2019 Projected	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 372	$ 292	$ 329	$ 378	$ 389
Outside services	171	130	292	223	623
Materials & supplies	1	-	-	-	-
Other expenses	12	3	18	2,525	3,025
Total Operating Expenses	$ 556	$ 425	$ 639	$ 3,126	$ 4,037
Expenditures by Fund					
Operating Expenses					
General Fund	$ 556	$ 425	$ 639	$ 3,126	$ 4,037
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 556	$ 425	$ 639	$ 3,126	$ 4,037
Capital Expenditures	-	-	-	-	-
Total Expenditures	$ 556	$ 425	$ 639	$ 3,126	$ 4,037
Staffing (FTE)	3.9	2.8	3.4	4.0	4.0


CAP
CENTRAL ARIZONA PROJECT

Operations & Maintenance - Assistant GM

Mission: Provides leadership in maintaining and operating the Central Arizona Project to ensure reliability through maintenance, replacement and operational activities

DIRECTOR CENTRALIZED MAINTENANCE & RELIABILITY
(Centralized Maintenance, Maintenance Control)
Brian Buzard
623-869-2545

Responsible for maintaining and improving the long-term reliability of CAP system functions in a cost-effective, safe and environmentally sound manner. Ensures that the Maintenance Groups perform the right maintenance at the right time.

DIRECTOR FIELD MAINTENANCE
(Electrical Safety, Maintenance West/South & Operational Technology)
Robert Moody
623-869-2634

Responsible for maintaining the integrity, capacity and reliability of the CAP water delivery system and related infrastructure through the application of proactive, Reliability Centered Maintenance (RCM) practices.

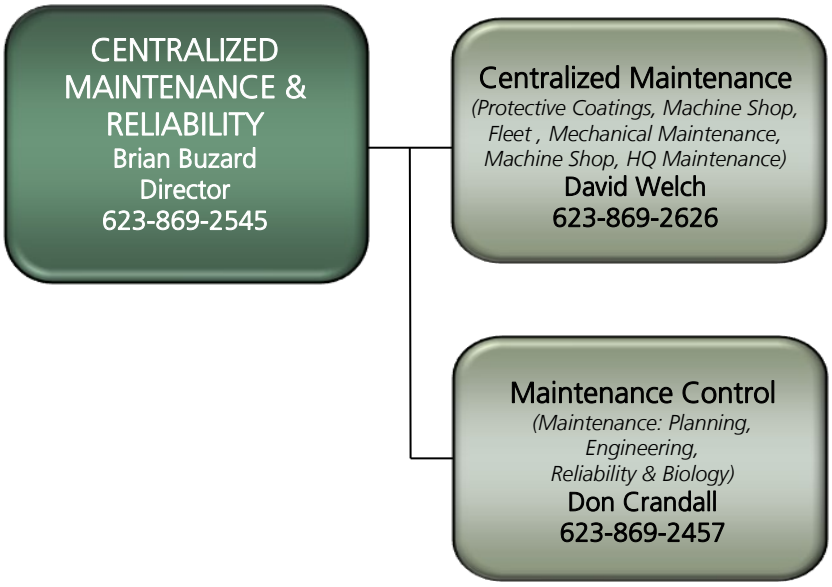
DIRECTOR OPERATIONS & ENGINEERING
(Water Operations, Engineering Services, Power Programs)
Darrin Francom
623-869-2276

Responsible for operational control of the water supply facilities, deliveries to customers, accounting for water diversion and deliveries, engineering support for maintenance and capital improvement of CAP facilities, administration of CAP lands and management of CAP power and transmission resources.


CAP
CENTRAL ARIZONA PROJECT

Centralized Maintenance & Reliability

Mission: The Maintenance Group protects and preserves the integrity and capacity of CAP's water delivery system and related infrastructure through proactive, reliability-based maintenance practices and a continuous improvement management philosophy, while valuing employee input and placing the highest priority on employee safety, health and welfare.



Responsible for the overhaul of heavy mechanical equipment at the pumping plants, and check and turnout structures; managing a centralized machine shop and weld shop; application and maintenance of protective coatings, fleet vehicles and heavy equipment.

Responsible for planning, scheduling and coordinating all maintenance activities; performing maintenance and reliability engineering functions; managing the functionality of the computerized maintenance management system; and managing canal biology.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Finance	Maintain effective financial strategies	Action Plan: Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities. The expected outcome was to have the measure of variance between budget and actual expenses and a target managing actual expenses to be no more than 2% over and no less than 5% under approved budget. Accomplishment: The CM&R Team had an actual budget variance of (2.8%) in 2018 and 2.7% for 2019.
Project Reliability	Provide reliable and cost-effective water deliveries	Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. The expected outcome was to provide a mechanism for discussion between Operations and Maintenance to align varying priorities, resolve conflicting situations (e.g., outage requests, maintenance needs, system operational constraints,) and ensure adherence to existing processes. An additional expected outcome was to reach a measurement and target of less than 2.00% total forced unit outage. Accomplishment: Forced outage rate was 1.92% for 2018. For 2019 it is forecast to be 2.97%.
	Continue to address aging infrastructure	Action Plan: Take ownership of tactical asset management teams (TAM) to drive defect elimination while fostering employee participation. The expected outcome was to maintain TAM meeting schedule and agenda commitments; utilize the reports that have been created for the TAM teams to reduce aged backlog; prioritize high criticality backlog; and eliminate defects. Additional outcomes were to ensure effective communication between the TAM/SAM teams and have a measurement, and target of reducing the average backlog age. Accomplishment: TAM teams meet regularly and follow a standard agenda. Facilitation has transitioned from area Maintenance managers to work execution supervisor. Median work order age reduced from 23 weeks to 18 weeks in 2018. Cross functional team developing a Maintenance Management Scorecard (MMS) in 2019.
	Achieve industry best maintenance practices	Action Plan: Design For Reliability with the expected outcome of ensuring reliability and maintainability during operations and maintenance is considered in business needs analysis, in the design and acquisition, installation, modification/upgrade of assets. The expected outcome was to meet the measurement of developing and utilizing reliability and maintainability checklist during design. Accomplishment: Completed Reliability Centered Design project on West Plant Exciters in 2018. We will work to complete Pumping plant sump systems scheduled to be completed in 2019.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Lead Strategic Asset Management Teams. The expected outcome was that through engagement and active participation, development of long range repair, rehab and replacement plans would occur. As well as developing consistent maintenance strategies across like asset classes. Additional outcomes were to ensure effective communication between the TAM/SAM teams and to meet the measurement of developing and implementing processes, narratives and RACI diagrams for the SAM/TAM teams. Accomplishment: Maintenance, Capital, Operations Impact (MCOI) report developed to identify those work items that have an operational impact. Risk register for capital projects and major maintenance work developed.
Project Reliability	Continue to address aging infrastructure	Action Plan: Continue to mature our condition assessment capabilities for use on additional critical assets. The expected outcome was to utilize data (SMART), historical information and subject matter expertise to drive maintenance, modification and upgrade decisions. As well as utilize this data to inform the development of 5-10 year major maintenance schedule and a (10+ years) capital improvement plan. An additional expected outcome was to reach a measurement of developing baseline plan for critical assets. Accomplishment: SMART phase two competed for Radial Gates, Turnouts and Siphons in 2018. Baseline Plan (Maintenance and Capital Project Risk Registers) completed I 2019.
		Action Plan: Develop process to support strategic asset management team. The expected outcome was to have the CM staff participate/provide input to SAM meeting. In addition to supporting the execution of the long-range maintenance plan through planning and resource sharing. Another outcome was to reach the measurement and target of outage Schedule Performance >/= 85. Accomplishment: Summer outage schedule performance was 94.3%. Fall outage performance was 92% in 2018. 2019 is forecast to be above 85%.

ACCOMPLISHMENTS

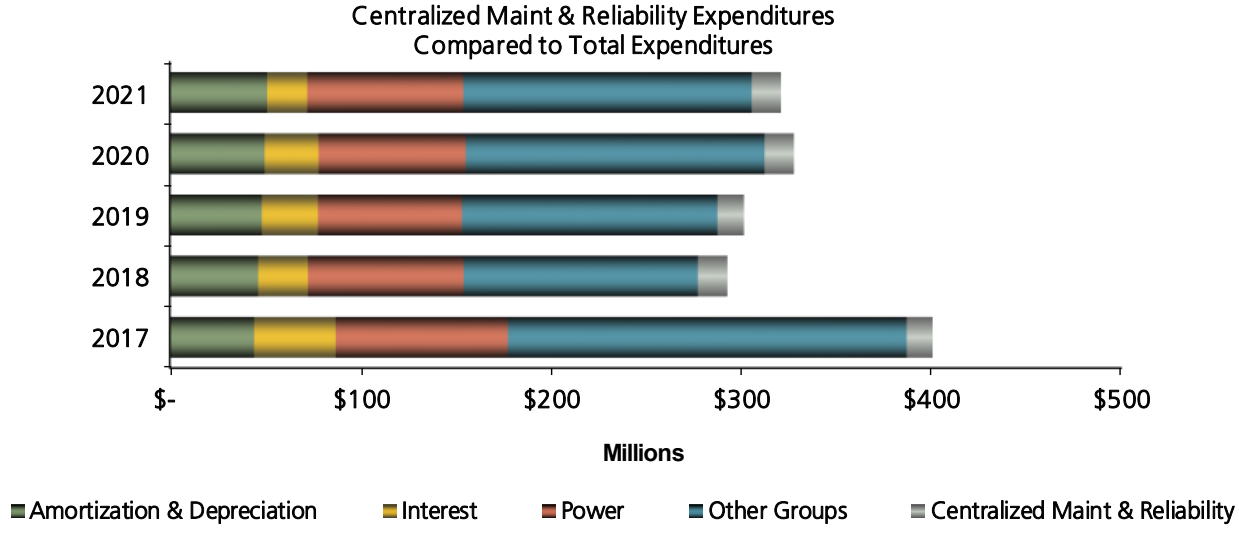
Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Project Reliability	Achieve industry best maintenance practices	Action Plan: Continue to participate in external reviews and assessments of CAP maintenance practices. The expected outcome was to complete a maintenance process assessment, with a measure of completing before Q4 2018. Accomplishment: Maintenance assessments completed in the North American Maintenance Excellence (NAME) and Uptime award application process. CAP received both the NAME award and Uptime award for best asset management program in 2018. No new assessments scheduled for 2019.
		Action Plan: Assess CAP's maintenance practices against established internal processes utilizing proactive asset management protocols. The expected outcome was to utilize the CAP internal auditor, and complete a maintenance process assessment. In addition to meeting the measurement of completing before Q4 2018. Accomplishment: We were unable to complete the internal audit in 2018 due to competing work priorities that emerged during the year. Will work to complete this item in 2020 / 2021.

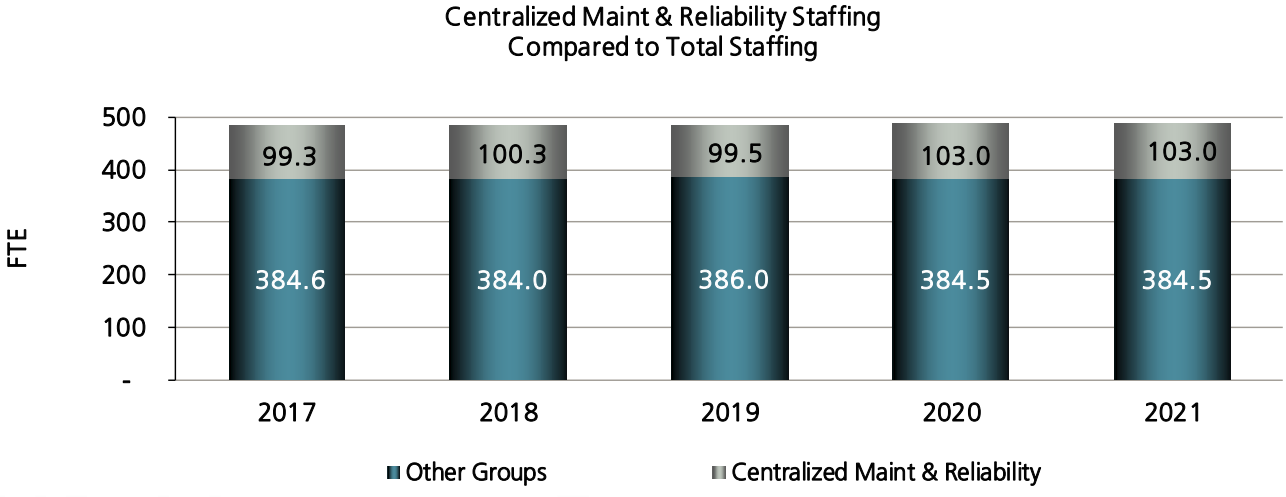
Business Goals

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Finance	Maintain effective financial strategies	Action Plan: Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities. Expected Outcome: Manage actual maintenance expenditures to no more than 2% over and no less than 5% under approved budget.
Project Reliability	Provide reliable and cost effective water deliveries	Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. Expected Outcome: Provide a mechanism for discussion between Operations and Maintenance to align varying priorities, resolve conflicting situations (e.g., outage requests, maintenance needs, system operational constraints,) and ensure adherence to existing processes. The measurement and target of less than 2.00% total forced unit outage.
	Effectively Manage, Operate and Maintain CAP Assets	Action Plan: Continue to mature our condition assessment capabilities for use on additional critical assets. Expected Outcome: Utilize data (SMART), historical information, and subject matter expertise to drive maintenance, modification, and upgrade decisions. Utilize this data to inform the development of 5-10 year major maintenance schedule and a (10+ years) capital improvement plan. The measurement of baseline plan developed for critical assets.
		Action Plan: Design For Reliability Expected Outcome: Ensure reliability and maintainability during operations and maintenance is considered in business needs analysis, in the design and acquisition, installation, modification/ upgrade of assets. The expected outcome was to meet the measurement of developing and utilizing reliability and maintainability checklist during design.

Centralized Maintenance & Reliability
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 8,745	$ 9,105	$ 8,941	$ 9,286	$ 9,743
Transmission	-	-	-	-	-
Outside services	600	395	420	485	601
Materials & supplies	1,599	1,791	1,602	1,930	1,778
Other expenses	999	998	903	1,002	1,007
Total Operating Expenses	$ 11,943	$ 12,289	$ 11,866	$ 12,703	$ 13,129
Expenditures by Fund					
Operating Expenses					
General Fund	$ 11,943	$ 12,289	$ 11,866	$ 12,703	$ 13,129
CAGRD Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 11,943	$ 12,289	$ 11,866	$ 12,703	$ 13,129
Capital Expenditures	1,660	3,330	2,007	2,796	2,233
Total Expenditures	$ 13,603	$ 15,619	$ 13,873	$ 15,499	$ 15,362
Staffing (FTE)	99.3	100.3	99.5	103.0	103.0





Centralized Maintenance & Reliability
CENTRALIZED MAINTENANCE

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 5,023	$ 5,193	$ 5,130	$ 5,387	$ 5,660
Outside services	411	271	259	299	370
Materials & supplies	1,499	1,694	1,512	1,783	1,683
Other expenses	734	725	642	718	737
Total Operating Expenses	$ 7,667	$ 7,883	$ 7,543	$ 8,187	$ 8,450
Expenditures by Fund					
Operating Expenses					
General Fund	$ 7,667	$ 7,883	$ 7,543	$ 8,187	$ 8,450
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 7,667	$ 7,883	$ 7,543	$ 8,187	$ 8,450
Capital Expenditures	1,520	3,128	1,916	2,546	2,142
Total Expenditures	$ 9,187	$ 11,011	$ 9,459	$ 10,733	$ 10,592
Staffing (FTE)	59.3	59.9	60.3	64.0	64.0

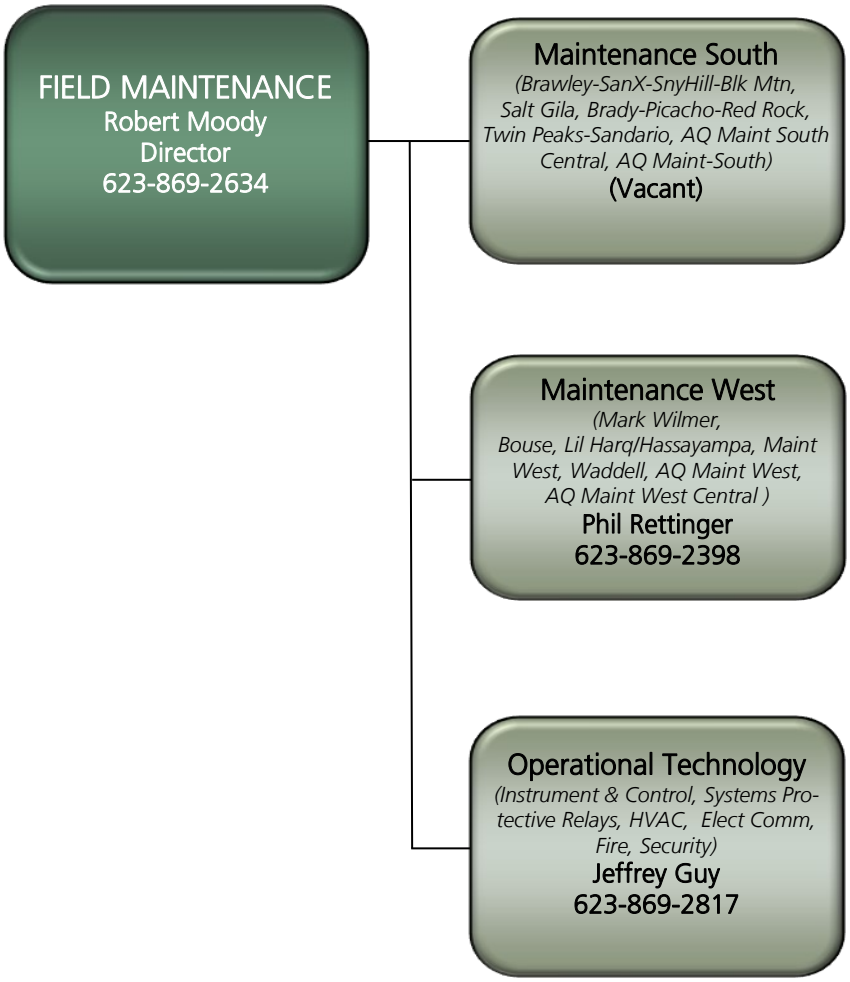
Centralized Maintenance & Reliability
MAINTENANCE CONTROL

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 3,722	$ 3,912	$ 3,811	$ 3,899	$ 4,083
Outside services	189	124	161	186	231
Materials & supplies	100	97	90	147	95
Other expenses	265	273	261	284	270
Total Operating Expenses	$ 4,276	$ 4,406	$ 4,323	$ 4,516	$ 4,679
Expenditures by Fund					
Operating Expenses					
General Fund	$ 4,276	$ 4,406	$ 4,323	$ 4,516	$ 4,679
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 4,276	$ 4,406	$ 4,323	$ 4,516	$ 4,679
Capital Expenditures	140	202	91	250	91
Total Expenditures	$ 4,416	$ 4,608	$ 4,414	$ 4,766	$ 4,770
Staffing (FTE)	40.0	40.4	39.2	39.0	39.0


CAP
CENTRAL ARIZONA PROJECT

Field Maintenance

Mission: The Maintenance Group protects and preserves the integrity and capacity of CAP's water delivery system and related infrastructure through proactive, reliability-based maintenance practices and a continuous improvement management philosophy, while valuing employee input and placing the highest priority on employee safety, health and welfare.



Responsible for maintaining the integrity, capacity and reliability of pumping plants, aqueducts, check and turnout structures, recharge facilities, pipelines, siphons, tunnels, O&M roads, cross-drainage structures, fencing, protective dikes and related facilities of the south area of the CAP water delivery system.

Responsible for maintaining the integrity, capacity and reliability of pumping plants, aqueducts, check and turnout structures, recharge facilities, pipelines, siphons, tunnels, O&M roads, cross-drainage structures, fencing, protective dikes and related facilities of the west area of the CAP water delivery system.

Responsible for the maintenance, testing, calibration and data collection of instrumentation and control systems; HVAC, fire protection and security systems; power transformers, main unit motors and protection systems; responsible for data and telemetry transmission and field radio communications systems. Oversee craft and trades Apprenticeship Program.

Field Maintenance

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Finance	Provide reliable and cost-effective water deliveries	Action Plan: Maintain coordinated financial strategies (budget, reporting, revenues, rates. expenditures, taxes, reserves) with the expected outcome of maintaining asset management cost structure to measure and control activity-based costs relative to individual assets and activities. An additional expected outcome was to reach the measure of variance between budget and actual expenses to no more than 2% over and no less than 5% under approved budget. Accomplishment: In 2018 the full year variance including Transmission is (0.49%) or $66k in a budget of $13.5M . For 2019, due to unexpected failures at MWP we expect the variance to be somewhat higher.
	Provide reliable and cost-effective water deliveries	Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. The expected outcome was to provide a mechanism for discussion between Operations and Maintenance to align varying priorities, resolve conflicting situations (e.g., outage requests, maintenance needs, system operational constraints,) and ensure adherence to existing processes. An additional outcome would be to meet the measurement and target of less than 2.00% total forced unit outage. Accomplishment: In 2018 the forced outage rate was 1.92%. For 2019 it is forecast to be 2.97%, due to failures at MWP.
Project Reliability	Continue to address aging infrastructure	Action Plan: Take ownership of tactical asset management teams (TAM) to drive defect elimination while fostering employee participation. The expected outcome of maintaining TAM meeting schedule and agenda commitments. Utilize the reports that have been created for the TAM teams to reduce aged backlog, prioritize high criticality backlog and eliminate defects. Additional outcomes would be to ensure effective communication between the TAM/SAM teams and to reach a measurement of reduced average backlog age. Accomplishment: TAM teams meet regularly and follow a standard agenda. Facilitation has transitioned from area Maintenance Managers to work execution supervisor. Median work order age reduced from 23 weeks to 18 weeks in 2018. Cross functional team developing a Maintenance Management Scorecard (MMS) in 2019.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Project Reliability	Continue to address aging infrastructure	Action Plan: Support Strategic Asset Management Team (SAM) in making repair/ rehab/ replace decisions for aging infrastructure. The expected outcome was to provide input, knowledge and technical expertise to the Strategic Asset Management Teams to assist in building long range maintenance plans and consistent strategies across like asset classes. The expected outcome was to also reach a measurement of Outage Schedule Performance >/= 85%. Accomplishment: Maintenance, Capital, Operations Impact (MCOI) report developed to identify those work items that have an operational impact. Risk register for capital projects and major maintenance work developed.
	Achieve industry best maintenance practices	Action Plan: Utilize failure codes. The expected outcome was to use accurate failure codes to provide feedback to maintenance planners and reliability engineers to highlight failure trends for corrective action. It will also provide quality assurance to ensure failure codes are relevant to systems being maintained. An additional expected outcome was to reach a measurement of increased use of defined failure codes in Infor. Accomplishment: The CMMS process now requires a failure code be entered for all non-PM work orders before close out. Field personnel are utilizing the failure codes however this is and will continue to be an on-going training and continual improvement opportunity.
		Action Plan: Schedule periodic Board field visits to critical CAP assets to foster direct knowledge of infrastructure capacity and conditions. The expected outcome was to providing at least 2 opportunities to Board Members Annually. Accomplishment: Completed several Board and GM site visits as scheduled in 2019.
	Maintain a safe and secure working environment	Action Plan: Maintain Voluntary Protection Program Star status with Arizona Division of Occupational Safety and Health, with the expected outcome of successfully acquiring VPP recertification in 2019. In addition, Total Recordable Case (TRC) and Days Away, Restricted, Transfer (DART) rate are below the Arizona averages for the water and sewer utility industry. Also, all directors and managers will perform two visits (not in their reporting work area). Accomplishment: CAP's TRC rate was 1.3 with and industry standard of 6.4 and the DART rate was .9 with an industry standard of 3.2. Also, we are working closely with the SVST and the VPP Certification committees to promote the VPP certification efforts.

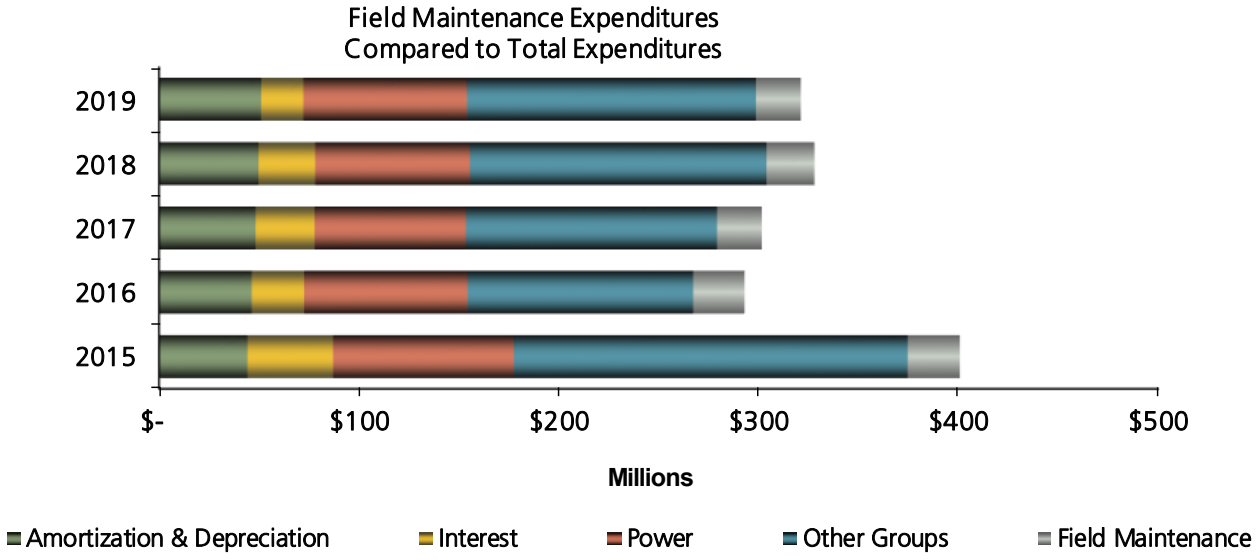
Field Maintenance

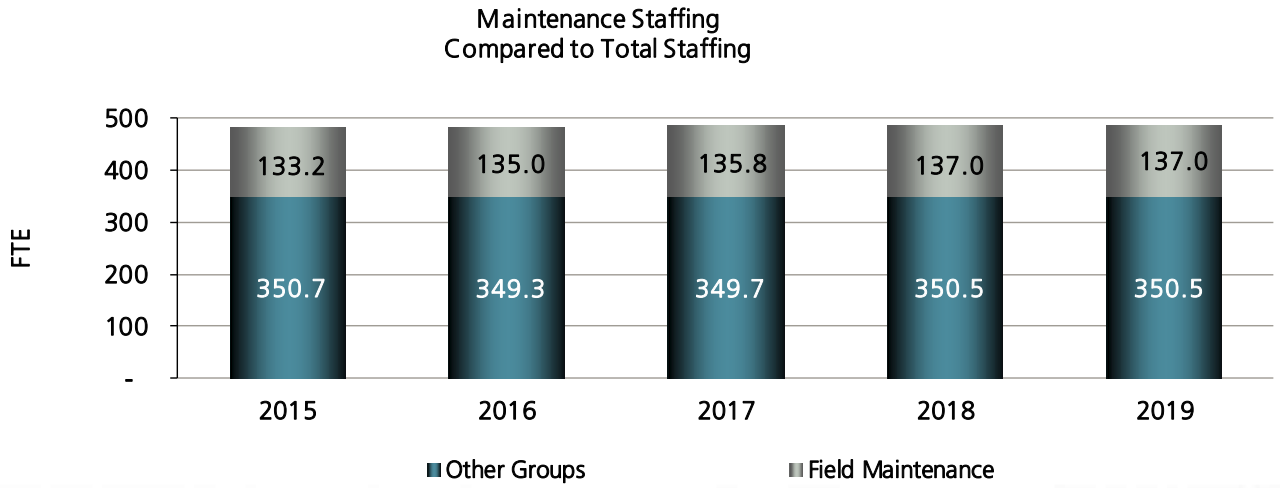
BUSINESS GOALS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Finance	Provide reliable and cost-effective water deliveries	Action Plan: Manage actual maintenance expenditures to no more than 2% over and no less than 5% under approved budget. Expected Outcome: No more than 2% over and no less than 5% under approved budget.
Project Reliability	Maintain a safe and secure working environment	Action Plan: Maintain CAP's Voluntary Protection Program (VPP) Star Status certification with the Arizona Division of Occupational Safety and Health (ADOSH) . Expected Outcome: ADOSH recertification in the Spring 2020.
	Provide reliable and cost effective water deliveries	Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. Maintain a forced outage rate of at or below 2%.
	Continue to address aging infrastructure	Action Plan: Oversee Tactical Asset Management teams (TAM) to drive defect elimination while fostering employee participation. Expected Outcome: Reduced backlog volume and age.
		Action Plan: Oversee the Strategic Asset Management Teams to build long range maintenance plans and consistent maintenance strategies across like asset classes.. Expected Outcome: Outage Schedule Performance >/= 85%.
	Achieve industry best maintenance practices	Action Plan: Facilitate and promote Board field visits to critical CAP assets to foster direct knowledge of infrastructure capacity and conditions. Expected Outcome: To provide at least 2 opportunities for Board Members to visit CAP assets annually.
		Action Plan: Continue to improve the use of Work Order failure codes in order to provide accurate failure information for Reliability Engineers. Expected Outcome: Field personnel report failure codes on all non-preventative maintenance PM work orders.

Field Maintenance
BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	$ 10,958	$ 11,671	$ 11,581	$ 11,582	$ 11,676
Outside services	1,225	1,487	2,519	2,335	2,521
Materials & supplies	4,076	4,688	4,558	4,823	4,555
Other expenses	1,231	1,605	1,612	1,246	1,324
Total Operating Expenses	$ 17,490	$ 19,451	$ 20,270	$ 19,986	$ 20,076
Expenditures by Fund					
Operating Expenses					
General Fund	$ 17,490	$ 19,451	$ 20,270	$ 19,986	$ 20,076
CAGRD Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 17,490	$ 19,451	$ 20,270	$ 19,986	$ 20,076
Capital Expenditures	8,726	6,294	2,278	3,964	2,418
Total Expenditures	$ 26,216	$ 25,745	$ 22,548	$ 23,950	$ 22,494
Staffing (FTE)	133.2	135.0	135.8	137.0	137.0





Field Maintenance
MAINTENANCE SOUTH

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 3,391	$ 3,467	$ 3,654	$ 3,843	$ 4,040
Outside services	863	776	1,781	1,427	1,681
Materials & supplies	1,688	1,797	1,662	1,632	1,660
Other expenses	210	243	408	298	305
Total Operating Expenses	$ 6,152	$ 6,283	$ 7,505	$ 7,200	$ 7,686
Expenditures by Fund					
Operating Expenses					
General Fund	$ 6,152	$ 6,283	$ 7,505	$ 7,200	$ 7,686
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 6,152	$ 6,283	$ 7,505	$ 7,200	$ 7,686
Capital Expenditures	272	200	115	491	310
Total Expenditures	$ 6,424	$ 6,483	$ 7,620	$ 7,691	$ 7,996
Staffing (FTE)	42.2	41.8	44.6	46.0	46.0

Field Maintenance
MAINTENANCE WEST

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 3,519	$ 3,727	$ 3,799	$ 3,909	$ 4,001
Outside services	174	487	580	632	632
Materials & supplies	1,783	2,102	2,311	2,549	2,339
Other expenses	505	707	608	395	484
Total Operating Expenses	$ 5,981	$ 7,023	$ 7,298	$ 7,485	$ 7,456
Expenditures by Fund					
Operating Expenses					
General Fund	$ 5,981	$ 7,023	$ 7,298	$ 7,485	$ 7,456
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 5,981	$ 7,023	$ 7,298	$ 7,485	$ 7,456
Capital Expenditures	431	390	505	103	96
Total Expenditures	$ 6,412	$ 7,413	$ 7,803	$ 7,588	$ 7,552
Staffing (FTE)	42.4	43.5	44.3	45.0	45.0

Field Maintenance

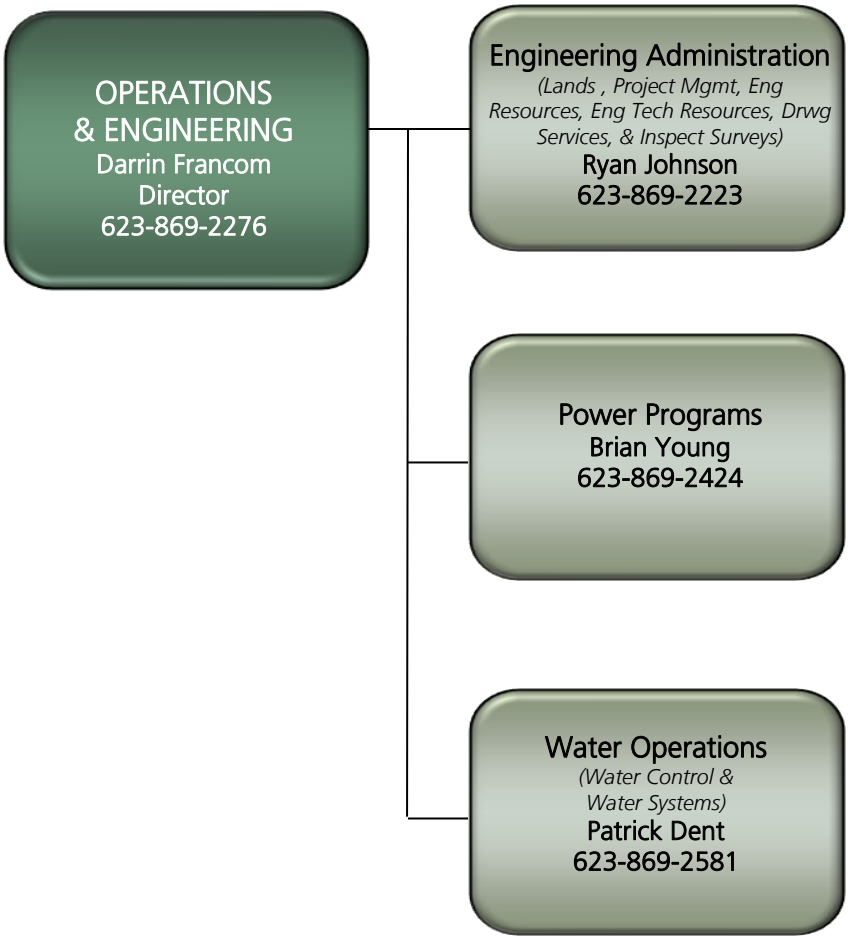
OPERATIONAL TECHNOLOGY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 4,048	$ 4,477	$ 4,128	**$ 3,830**	**$ 3,635**
Outside services	188	224	158	**276**	**208**
Materials & supplies	605	789	585	**642**	**556**
Other expenses	516	655	596	**553**	**535**
Total Operating Expenses	$ 5,357	$ 6,145	$ 5,467	**$ 5,301**	**$ 4,934**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 5,357	$ 6,145	$ 5,467	**$ 5,301**	**$ 4,934**
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 5,357	$ 6,145	$ 5,467	**$ 5,301**	**$ 4,934**
Capital Expenditures	8,023	5,704	1,658	**3,370**	**2,012**
Total Expenditures	$ 13,380	$ 11,849	$ 7,125	**$ 8,671**	**$ 6,946**
Staffing (FTE)	48.6	49.7	46.9	**46.0**	**46.0**


CAP
CENTRAL ARIZONA PROJECT

Operations & Engineering

Mission: The Operations and Engineering Group manages the operation of the CAP water delivery system, designs and oversees infrastructure improvements and new construction and manages CAP power and transmission resources.



Provides oversight and stewardship of CAP land and technical records, provides engineering design and expertise, including project management. Additional resources include inspection services, construction contract administration, land surveying and Computer Aided Drafting/Design.

Manages the power and transmission resources for the CAP including CAWCD rights to the CAP, Navajo and Palo Verde-Morgan Transmission Systems, CAWCD's contracts for Hoover power and solar generation, and other agreements for the purchase of energy or transmission service and related services.

Responsible for the safe and efficient delivery of CAP water, including the operation of the canal, pumping plants, check gates, turnouts, underground storage sites and Lake Pleasant. Provides front-line water customer service, water accounting and forecasting. Performs hydraulic and hydrologic engineering.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	Action Plan: Balance department focus to effectively accomplish both the Capital Improvements Plan and the support of items from Maintenance. The expected outcome was to track pre-project completion estimate to actual completion status and to monitor and report to ensure the capital budget is not exceeded. Accomplishment: We maintained 87% compliance with project milestones. 2018 capital project budget was $26.3 million dollars and we executed projects with a realized cost of $25.4 million, 97% budget utilization. 2019 is on target for similar results, with high budget utilization and good alignment with milestones.
Project Reliability	Achieve industry best maintenance practices	Action Plan: Develop and deploy Key Performance Indicators for each division of engineering services and benchmark these to industry standards or historical levels to ensure continual efficiencies and improvement. The expected outcome was to display positive trends in the tracked KPIs. Accomplishment: Key Performance Indicators were deployed for each division within Engineering Services. Each (KPI) showed positive trends and drove continuaul improvement. Significant improvement was realized within the Drawing Services Backlog KPI, which has dropped to a manageable 3-4 week level.
		Action Plan: Develop a 5 year coordinated major work plan that displays all needed capital improvement projects and all major maintenance tasks that require engineering services. The expected outcome was ensuring the plan will develop and is track at least 85% of all major work that is being executed. Accomplishment: Developments in this area included the creation of the Maintenance Capital Operations Interruption report and biannual meeting and a formalized Long Range Work Identification process. There is still work to be done and our planning window needs to extend to 10 years, to better align with the Long Range Financial Plan.
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Manage Colorado River diversions to optimize CAP's Colorado River entitlement and support efforts to protect Lake Mead. The expected outcome was to divert CAP's full entitlement less water that was targeted for protection of Lake Mead, including pre-DCP contributions along with any forbearance agreements that CAP has entered into for the years of 2018 and 2019. Accomplishment: Colorado River diversions for 2018 and 2019 were closely coordinated with the Bureau of Reclamation, accommodated all ICS and forbearance agreements, and maximized all available water under CAP's contract.

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Coordinate efforts to sustain CAP's ability to deliver all available Colorado River Water by permitting modification or renewal of Superstition Mountains, Agua Fria and Lower Santa Cruz recharge projects. The expected outcome was to have permit renewals completed 1-year ahead of permit expiration in 2019, to avoid interruption to recharge activities. Accomplishment: Working collaboratively with the Arizona Department of Water Resources, all recharge site permitting was managed in a manner that avoided any interruption in recharge activities.
Power	Enhance transmission reliability	Action Plan: Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative generation resources. The expected outcome was to have the following indices calculated and benchmarked to Western Electric Coordinating Council (WECC) standards annually: Index of Transmission Reliability (ITR); Total transmission system availability; The measurement of completing a planned PV-Morgan and Hassayampa Tap transmission project; Energization of line from Sun Valley Substation to Hassayampa Tap by end of 2018. Accomplishment: The PV-Morgan and Hassayampa Tap transmission projects were completed and the energization of the line from Sun Valley Substation to Hassayampa Tap was concluded by the end of 2018. These projects were executed under the planned budget amounts.
		Action Plan: Replace unreliable wood poles on ED2-Saguaro transmission line with steel structures. The expected outcome was to reach the measure of completely replacing wood poles along all 37.5 miles of ED2-Saguaro line and to complete replacement of line by 2019. Accomplishment: The ED2-Saguaro wood pole replacement project completed in April 2018, ahead of schedule and at a cost under the planned budget.

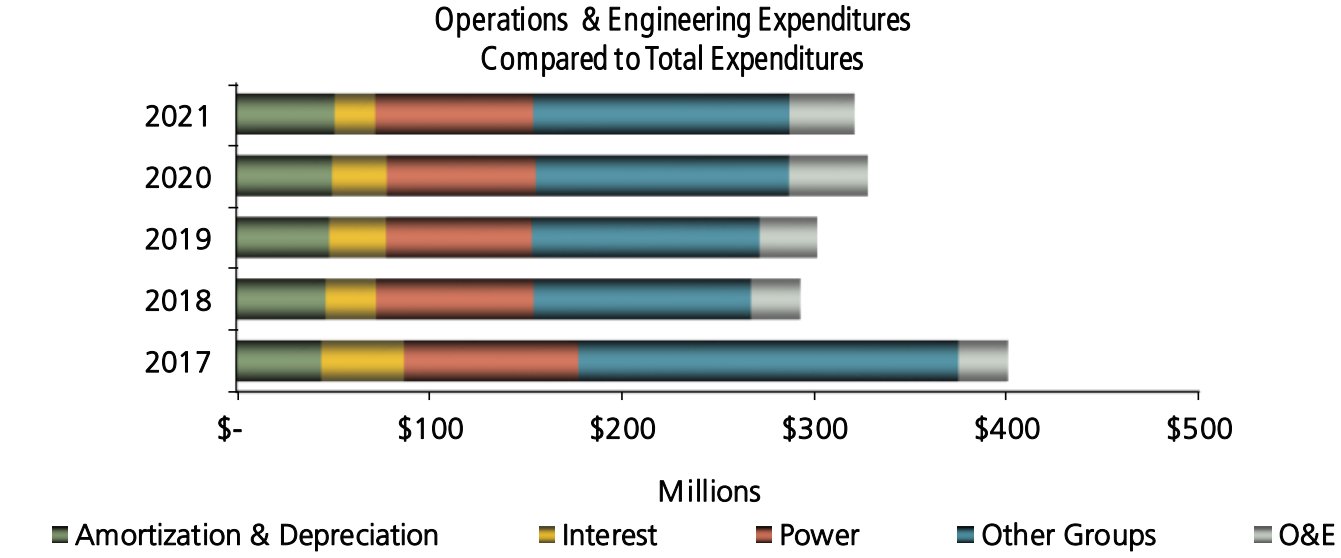
Key Result Area	Strategic Objectives	2018 / 2019 Action Plans & Accomplishments
		Action Plan: Continually monitor energy developments and provide periodic updates to the Board on market prices for energy, technological advances, cost of alternative generation and procurement of power resources. The expected outcome was to provide at least 3 updates to the Board annually to keep them informed on relevant energy developments. Accomplishment: More than 3 updates were provided to the Board each year to keep them informed on relevant energy development, inclusive of NGS closure discussions, transmission project updates and power purchase agreements.
Power	Secure reliable, sustainable, cost-effective generation resources	Action Plan: Develop a plan for acquiring a portfolio of power resources to replace NGS and initiate procurement of power resources that are cost-effective and meet CAP load requirements. The expected outcome was to secure power resources in advance of NGS closure that are necessary for reliable, cost-effective supply of CAP load. Accomplishment: Power resources for 2020 were secured, including contracts for: (1) SRP Fleet, 35 MW, 5 year contract (2) Solar 30 MW, 20 year contract, (3) Solar Phase II 20 MW with 60MWhr battery storage, 20 year contract, (4) Purchased 15 power products from six unique providers. No single source provides more than 15-20% of CAP's energy needs.
		Action Plan: Develop options for a post NGS portfolio that complies with the Boards' Risk guidance. The expected outcome was to secure power resources in advance of the portfolio guidelines. Accomplishment: Power resources for 2020 were secured, including contracts for: (1) SRP Fleet, 35 MW, 5 year contract (2) Solar 30 MW, 20 year contract, (3) Solar Phase II 20 MW with 60MWhr battery storage, 20 year contract, (4) Purchased 15 power products from six unique providers. No single source provides more than 15-20% of CAP's energy needs.

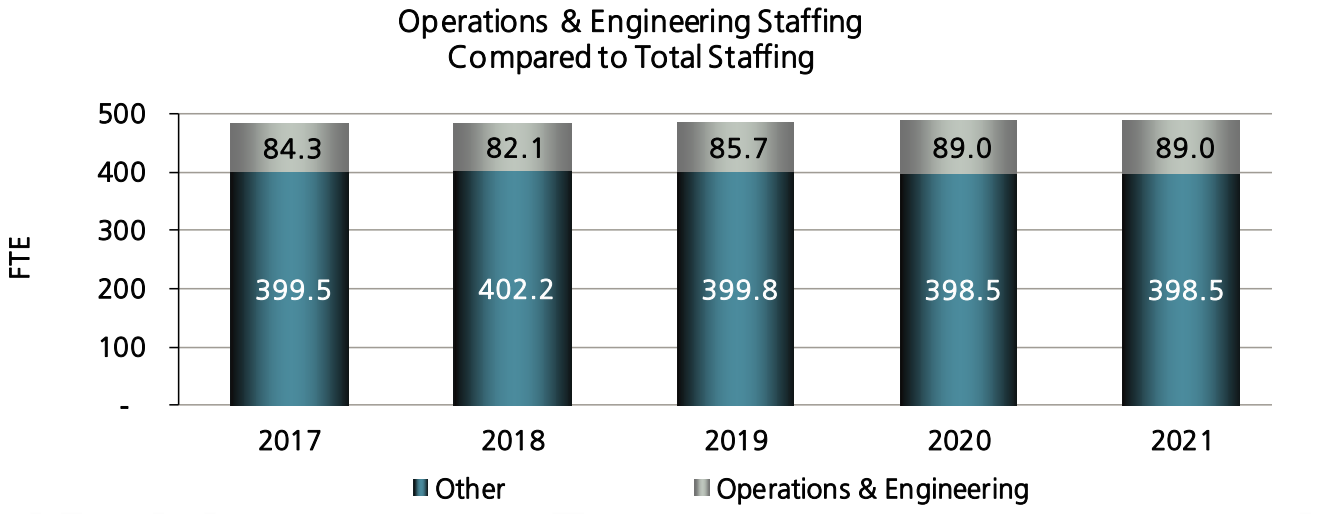
Business Goals

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Expected Outcomes
Leadership & Public Trust	Continually enhance Board members' understanding of the issues impacting water, power and operations.	Action Plan: Continue to develop data and reporting products that provide transparency to CAP Operations and the management of the CAP's Colorado River water supply Expected Outcome: Revise CAP Operations section of the CAP website. Improvements to the content and layout information related to operational forecasts, water delivery data, Annual Operating Plan and water quality information.
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	Action Plan: Balance the Engineering Services Department focus to effectively accomplish both the Capital Improvements Plan and the support of items from Maintenance. Expected Outcome: High priority work orders are identified and accomplishments tracked in alignment with the agreements and prioritization process conducted with the Maintenance Department. The capital projects are managed in alignment with the capital budget, with a target of less than 10% variance.
Power	Secure reliable, sustainable, cost-effective generation resources	Action Plan: Continually monitor energy developments and provide periodic updates to the Board on market prices for energy, technological advances, cost of alternative generation and procurement of power resources. Expected Outcome: Provide at least 3 updates to the Board annually to keep them informed on relevant energy developments and apprised of impact to water rates.
		Action Plan: Develop and execute options for CAP's energy portfolio that comply with the Board's Risk guidance and support steady and efficient water rates. Expected Outcome: Risk to energy costs and the associated impact to water rates is monitored and action is taken to purchase power resources when there are favorable rates that sustain or reduce published rates.
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Manage Colorado River diversions to optimize CAP's Colorado River entitlement and support efforts to protect Lake Mead. Expected Outcome: Divert CAP's full entitlement less water that is targeted for protection of Lake Mead, including DCP contributions along with any forbearance agreements that CAP has entered into for the years of 2020 and 2021.
Project Reliability	Continue to address aging infrastructure	Action Plan: Continue to implement asset management objectives including improving the medium and long term planning processes for operations, capital projects, and power to provide input into the Long Range Financial Plan. Expected Outcome: The Long Range Project Plan, Long Range Energy Rate and Annual Operation Plan are developed and are effective inputs into the Long Range Financial Plan.

Operations & Engineering
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 5,655	$ 6,123	$ 6,695	$ 6,468	$ 7,155
Outside services	5,528	2,386	8,106	2,601	2,278
Materials & supplies	120	156	158	218	203
Water for recharge	-	-	-	-	-
Other expenses	574	523	752	705	712
Total Operating Expenses	$ 11,877	$ 9,188	$ 15,711	$ 9,992	$ 10,348
Expenditures by Fund					
Operating Expenses					
General Fund	$ 11,877	$ 9,188	$ 15,711	$ 9,992	$ 10,348
CAGRD Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	$ 11,877	$ 9,188	$ 15,711	$ 9,992	$ 10,348
Capital Expenditures	13,882	16,382	14,171	30,878	23,546
Total Expenditures	$ 25,759	$ 25,570	$ 29,882	$ 40,870	$ 33,894
Staffing (FTE)	84.3	82.1	85.7	89.0	89.0





Operations & Engineering
ENGINEERING SERVICES

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 3,336	$ 3,836	$ 4,217	**$ 3,764**	**$ 4,371**
Outside services	4,753	1,818	7,264	**1,437**	**1,092**
Materials & supplies	94	100	124	**98**	**78**
Other expenses	204	167	198	**225**	**228**
Total Operating Expenses	$ 8,387	$ 5,921	$ 11,803	**$ 5,524**	**$ 5,769**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 8,387	$ 5,921	$ 11,803	**$ 5,524**	**$ 5,769**
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 8,387	$ 5,921	$ 11,803	**$ 5,524**	**$ 5,769**
Capital Expenditures	13,882	16,382	14,171	**30,803**	**23,469**
Total Expenditures	$ 22,269	$ 22,303	$ 25,974	**$ 36,327**	**$ 29,238**
Staffing (FTE)	62.1	61.0	62.5	**64.0**	**64.0**

Operations & Engineering
POWER PROGRAMS

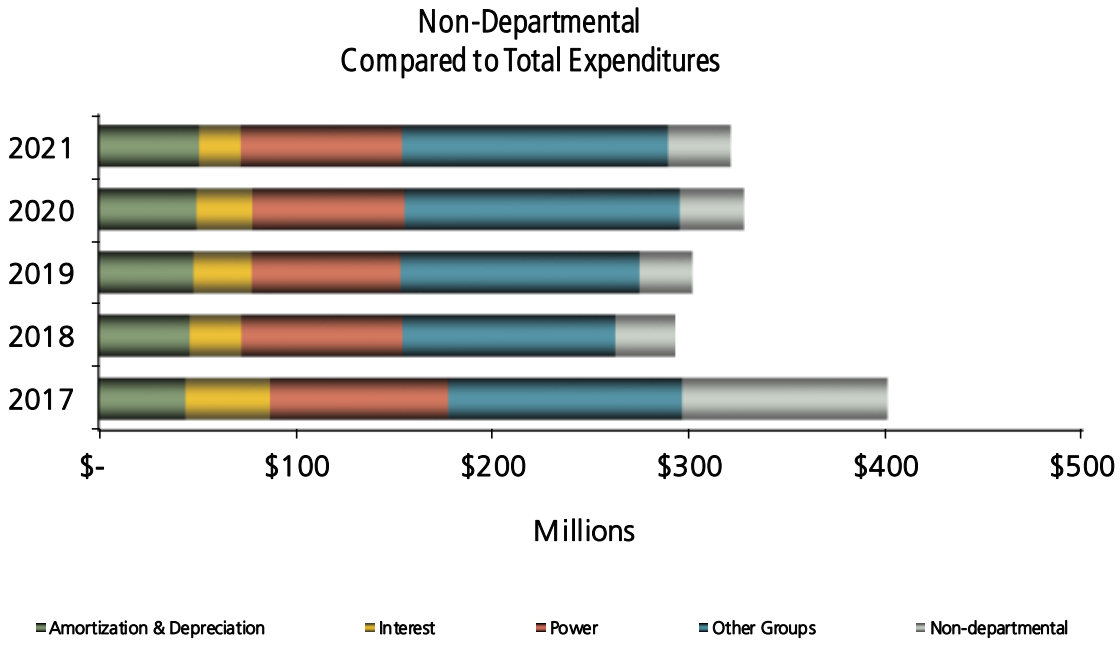
(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 209	$ 234	$ 294	**$ 358**	**$ 369**
Outside services	8	69	105	**130**	**130**
Materials & supplies	-	-	-	**1**	**1**
Water for recharge					
Other expenses	5	5	9	**40**	**40**
Total Operating Expenses	$ 222	$ 308	$ 408	**$ 529**	**$ 540**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 222	$ 308	$ 408	**$ 529**	**$ 540**
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 222.0	$ 308	$ 408	**$ 529**	**$ 540**
Capital Expenditures	-	-	-	**-**	**-**
Total Expenditures	$ 222	$ 308	$ 408	**$ 529**	**$ 540**
Staffing (FTE)	1.8	2.0	2.5	3.0	3.0

WATER OPERATIONS

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating Expenses					
Salaries & wages	$ 2,110	$ 2,053	$ 2,184	**$ 2,346**	**$ 2,415**
Outside services	767	499	737	**1,034**	**1,056**
Materials & supplies	26	56	34	**119**	**124**
Other expenses	365	351	545	**440**	**444**
Total Operating Expenses	$ 3,268	$ 2,959	$ 3,500	**$ 3,939**	**$ 4,039**
Expenditures by Fund					
Operating Expenses					
General Fund	$ 3,268	$ 2,959	$ 3,500	**$ 3,939**	**$ 4,039**
CAGRD Account					
Other Funds and Accounts					
Total Operating Expenses	$ 3,268	$ 2,959	$ 3,500	**$ 3,939**	**$ 4,039**
Capital Expenditures	-	-	-	**75**	**77**
Total Expenditures	$ 3,268	$ 2,959	$ 3,500	**$ 4,014**	**$ 4,116**
Staffing (FTE)	20.4	19.1	20.7	**22.0**	**22.0**

Non-Departmental
BUDGET SUMMARY

(Thousands)	2017 Actuals	2018 Actuals	2019 Projection	2020 Budget	2021 Budget
Operating & Non-operating Expenses					
Salaries & benefits	$ 20,122	$ 18,457	$ 23,316	**$ 23,757**	**$ 25,077**
Pumping power & capacity charges	90,558	81,807	75,663	**77,445**	**81,989**
Transmission	9,576	12,596	14,789	**13,703**	**13,366**
Depreciation & amortization	44,178	46,348	48,276	**49,771**	**51,078**
Interest expense	42,918	26,238	29,551	**28,311**	**21,126**
Other expenses	60,858	(8,319)	(15,746)	**(11,779)**	**(12,138)**
Total Operating & Non-operating Expenses	$ 268,210	$ 177,127	$ 175,849	**$ 181,208**	**$ 180,498**
Expenditures by Fund					
Operating & Non-operating Expenses					
General Fund	$ 277,101	$ 179,862	$ 186,804	**$ 186,681**	**$ 186,889**
CAGRD Account	1,560	1,565	1,413	**1,626**	**1,675**
Other Funds & Eliminations	(10,451)	(4,300)	(12,368)	**(7,099)**	**(8,066)**
Total Operating & Non-operating Expenses	$ 268,210	$ 177,127	$ 175,849	**$ 181,208**	**$ 180,498**
Capital Expenditures	13,826	7,751	4,486	**7,057**	**5,581**
Total Expenditures	$ 282,036	$ 184,878	$ 180,335	**$ 188,265**	**$ 186,079**
Vacancy/Salary Savings Equivalent	-	-	(1.0)	(15.0)	(15.0)




CAP
CENTRAL ARIZONA PROJECT

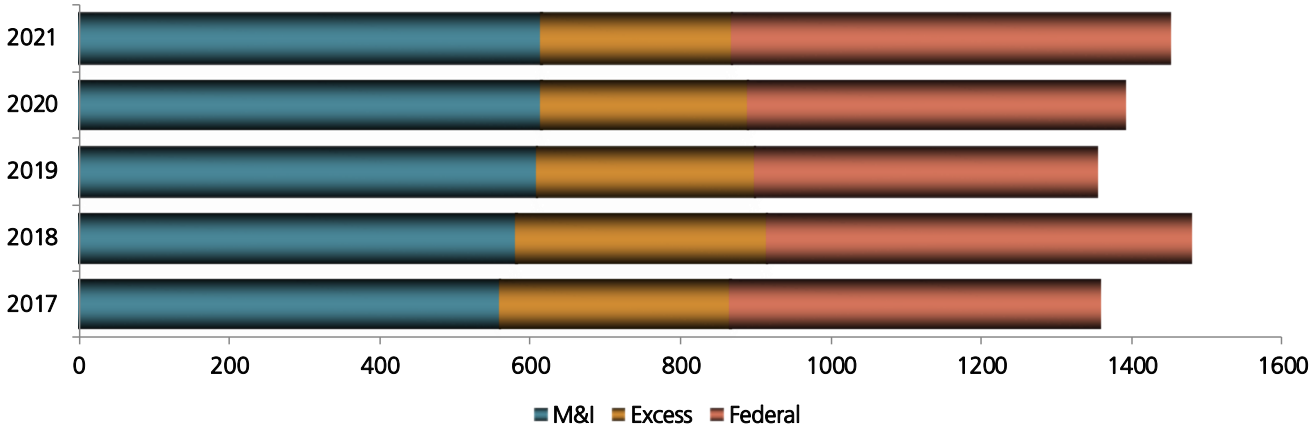
WATER DELIVERIES

(Acre-Feet)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Municipal & Industrial Water					
Subcontract	561,004	580,644	610,325	**615,173**	**615,173**
Federal Contract					
On-reservation	103,916	143,176	144,017	**123,098**	**206,098**
Off-reservation	386,609	419,980	308,806	**377,019**	**377,019**
Subtotal Federal Contract	490,525	563,156	452,823	**500,117**	**583,117**
Excess					
Ag Settlement Pool (includes Ag Forbearance)	257,851	242,849	273,854	**274,710**	**253,854**
CAGRD Obligation	28,283	33,436	13,891	-	-
CAGRD Obligation @ Scottsdale IWDS	1,100	1,260	1,260	-	-
AWBA	17,630	38,000	-	-	-
AWBA Interstate Banking Water	-	13,500	-	-	-
USBR Firming	-	5,000	-	-	-
CAGRD Replenishment Reserve	-	-	-	-	-
Temporary water use permits	826	806	625	**625**	**625**
Full Cost Excess (Unscheduled overruns)	96	579	-	-	-
Subtotal Excess	305,786	335,430	289,630	**275,335**	**254,479**
Supplemental excess	-	-	-	-	-
Subcontract	-	-	-	-	-
Subtotal	305,882	336,009	289,630	**275,335**	**254,479**
Total Water Deliveries	1,357,315	1,479,230	1,352,778	**1,390,625**	**1,452,769**
Transfer of credits to CAGRD	14,892	-	39,318	**13,868**	**15,209**
Take or Pay/Adjustment	9,702	11,489	6,000	**6,000**	**6,000**
Billed Fixed OM&R Water Volumes	1,381,909	1,490,719	1,398,096	**1,410,493**	**1,473,978**

Water Deliveries

(Acre-feet in Thousands)



WATER REVENUE GENERAL FUND

(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
WATER REVENUES					
Municipal & Industrial Water Subcontract	$ 87,180	$ 83,468	$ 91,524	**$ 95,069**	**$ 97,265**
Federal Contract					
On-reservation	16,149	20,582	21,597	**19,024**	**32,586**
Off-reservation	60,079	60,372	46,309	**58,265**	**59,610**
Subtotal Federal Contract	76,228	80,954	67,906	**77,289**	**92,196**
Excess					
Ag Settlement Pool (includes Ag Forbearance)	16,760	14,817.0	15,200	**15,384**	**14,470**
CAGRD Obligation	3,744	5,316	2,195	**-**	**-**
CAGRD Obligation @ Scottsdale IWDS	178	200	199	**-**	**-**
AWBA	3,820	6,042	-	**-**	**-**
AWBA Interstate Banking Water	-	2,147	-	**-**	**-**
USBR Firming	-	795	-	**-**	**-**
CAGRD Replenishment Reserve	-	-	-	**-**	**-**
Water Revenues Contra WSTA	(1,004)	(5,724)	(201)	**-**	**-**
Temporary water use permits	299	351	1,022	**257**	**277**
Full Cost Excess (Unscheduled overruns)	16	92	-	**-**	**-**
Subtotal Excess	23,813	24,036	18,415	**15,641**	**14,747**
Total Water Deliveries	187,221	188,458	177,845	**187,999**	**204,208**
Misc. Adjustments		(2,650)	(206)	**-**	**-**
Transfer of credits to CAGRD	2,413		6,212	**2,150**	**2,388**
Take/Pay Adj.	927	1,021	573	**594**	**600**
Total Water O&M Charges	190,561	186,829	184,424	**190,743**	**207,196**
	-				
CAPITAL & FACILITY USE CHARGES					
M&I subcontractors	19,243	27,933	25,450	**34,760**	**40,966**
M&I non-subcontract	1,922	4,130	2,233	**777**	**1,004**
Capital Charges - Pima (Interstate)	-	-	-	-	**-**
Underground storage facilities	76	172	225	**203**	**203**
Total Capital & Facility Use Charges	$ 21,241	$ 32,235	$ 27,908	**$ 35,740**	**$ 42,173**

Note: Minor differences due to rounding.

CENTRAL ARIZONA PROJECT RATE SCHEDULE

DELIVERY RATES FOR VARIOUS CLASSES OF WATER SERVICE

(The Letter Designations in the Formulas refer to the Rate Components shown below)

Units = $/acre-foot

	2017	2018	2019	Firm 2020	Modified * Tier Zero Advisory 2021
Municipal and Industrial Subcontract (B+C)	$ 164	$ 160	$ 158	**$ 155**	**$ 157**
Federal (B+C)	$ 164	$ 160	$ 158	**$ 155**	**$ 157**
Agricultural Settlement Pool (C)[1]	$ 77	$ 65	$ 62	**$ 56**	**$ 57**
Agricultural Incentives					
Meet Settlement Pool Goals	(12)	(0)	-	**-**	**-**
Meet AWBA/CAGRD GSF Goals	(2)	(1)	-	**-**	**-**
Meet Recovery Goals	(2)	(1)	-	**-**	**-**
Excess (A+B+C)[2]	$ 195	$ 205	$ 199	**211**	**223**
Interstate (A+B+C+D)	$ -	$ 254	$ 253	**TBD**	**TBD**

RATE COMPONENTS

Units = $/acre-foot

Capital Charges					
(A) Municipal and Industrial - Long Term Subcontract[3]	$ 31	$ 45	$ 41	**$ 56**	**$ 66**
Delivery Charges					
Fixed O&M[4]	$ 59	$ 67	$ 72	**$ 75**	**$ 76**
"Big R"[4]	26	27	24	**24**	**24**
Fixed OM&R Rate Stabilization[4]	2	1	0	**0**	**0**
(B) Fixed OM&R[4]	87	95	96	**99**	**100**
(C) Pumping Energy Rate 1[5]	77	65	62	**56**	**57**
(D) Property Tax Equivalency	-	49	54	**TBD**	**TBD**
(E) Proposed Rate Stabilization[6]	-	-	-	-	-
Underground Water Storage O&M[7]					
Phoenix AMA	$ 12	$ 13	$ 13	**$ 13**	**$ 13**
Tucson AMA	15	15	15	**15**	**15**
Underground Water Storage Capital Charge[8]					
Phoenix AMA	$ 15	$ 15	$ 15	**$ 15**	**$ 15**
Tucson AMA	9	9	9	**9**	**9**

* Modified from Tier 1 to Tier Zero Rate

Long-Term Municipal and Industrial (M&I) Subcontract: M&I subcontractors

Non-Subcontract: M&I users who are not subcontractors and the Central Arizona Groundwater Replenishment District (CAGRD)

Recharge (Arizona Water Banking Authority (AWBA)/CAGRD and M&I Underground Water Storage): The AWBA and M&I subcontractors, Bureau of Reclamation (BOR or Reclamation) and other Arizona entities who have valid Arizona Department of Water Resources (ADWR) permits and accrue long-term recharge/storage credits from this activity.

CENTRAL ARIZONA PROJECT RATE SCHEDULE

NOTES:

1 Delivery rate is the Pumping Energy Rate component only. Board policy is to allow the rate to increase no more than $4/AF per year.

2 Excess includes the Arizona Water Banking Authority, CAGRD and BOR and is administered according to CAP''s Access to Excess policy.

3 For M&I subcontract water, the Capital Charge is paid on full allocation regardless of amount delivered and is not included in delivery rates. Capital Charge rate for 2020 includes reduction of $12/AF and 2021 includes a reduction of $8/AF as a result of application of property taxes to federal repayment.

4 Fixed OM&R charge consists of Fixed O&M, "Big R" (Water delivery capital, large extraordinary maintenance projects and bond debt service) and Fixed M&R Rate Stabilization. Debt service on CAP's Water Delivery O&M Revenue Bonds, Series 2016 is about $3.6 million annually and is included in "Big R". This rate is collected on all ordered water whether delivered or not.

5 The pumping energy rate applies to all actual water volumes as opposed to scheduled. The energy rate decline post-2019, reflects the closure of the Navajo Generating Station.

6 Proposed application of Rate Stabilization, not included in above rates.

7 Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.

8 Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBS for M&I firming, the CAGRD, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.

Key Assumptions

- Non-Indian Ag reallocation occurs in 2021 for 2022 deliveries

- Wheeling starts in 2021 at 700 acre-foot/year and remains at that level

- Rates are in accordance with Arizona Implementation Plan for Drought Contingency Plan

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

Units = $/acre-foot

* Modified from Tier One to Tier Zero Rate

	2016/17	2017/18	2018/19	Firm 2019/20	Modified * Tier Zero Advisory 2020/21
Phoenix Active Management Area					
Water & Replenishment Component [1]	$ 186	$ 214	$ 192	**$ 238**	**$ 293**
Administrative Component [2]	32	36	40	**41**	**41**
Infrastructure & Water Rights Component [3]	353	353	353	**353**	**353**
Replenishment Reserve Charge [4]	89	101	90	**95**	**101**
Total Assessment Rate ($/AF)	$ 660	$ 704	$ 675	**$ 727**	**$ 788**
Pinal Active Management Area					
Water & Replenishment Component [1]	$ 175	$ 204	$ 204	**$ 211**	**$ 223**
Administrative Component [2]	32	36	40	**41**	**41**
Infrastructure & Water Rights Component [3]	353	353	353	**353**	**353**
Replenishment Reserve Charge [4]	96	108	97	**103**	**109**
Total Assessment Rate ($/AF)	$ 656	$ 701	$ 694	**$ 708**	**$ 726**
Tucson Active Management Area					
Water & Replenishment Component [1]	$ 213	$ 238	$ 221	**$ 242**	**$ 254**
Administrative Component [2]	32	36	40	**41**	**41**
Infrastructure & Water Rights Component [3]	353	353	353	**353**	**353**
Replenishment Reserve Charge [4]	108	131	103	**102**	**102**
Total Assessment Rate ($/AF)	$ 706	$ 758	$ 717	**$ 738**	**$ 750**
Contract Replenishment Tax - Scottsdale [5]					
Cost of Water	$ 184	$ 195	$ 205	**$ 199**	**$ 0**
Cost of Transportation	0	0	0	**0**	**0**
Cost of Replenishment	0	0	0	**0**	**0**
Administrative Component [2]	32	36	40	**41**	**0**
Total Tax Rate ($/AF)	$ 216	$ 231	$ 245	**$ 240**	**$ 0**

ENROLLMENT & ACTIVATION FEES

Units = $/Housing Unit

Enrollment Fee - Commercial Subdivisions [6]	$ 0	$ 700	$ 924	**$ 1094**	**$ 1184**
Enrollment Fee [6]	$ 237	$ 284	$ 284	**$ 284**	**$ 304**
Activation Fee-Minimum [8]	$ 235	$ 282	$ 282	**$ 282**	**$ 302**
Activation Fee-Phoenix AMA [8]	$ 260	$ 610	$ 820	**$ 1,080**	**$ 1,180**
Activation Fee-Pinal Post-2007 [8]	$ 260	$ 610	$ 820	**$ 1,080**	**$ 1,180**
Activation Fee-Tucson AMA [8]	$ 250	$ 510	$ 640	**$ 810**	**$ 880**

ANNUAL MEMBERSHIP DUES

Member Land Annual Membership Dues ($/Lot) [9]					
Phoenix Active Management Area	$ 15.45	$ 22.63	$ 23.52	**$ 28.59**	**$ 35.74**
Pinal Active Management Area	$ 2.05	$ 14.88	$ 15.35	**$ 19.36**	**$ 25.20**
Tucson Active Management Area	$ 9.87	$ 23.58	$ 24.54	**$ 31.04**	**$ 39.29**
Member Service Area Annual Membership Dues ($/AF) [9]	$ 23.67	$ 74.44	$ 76.53	**$ 97.22**	**$ 128.79**

Central Arizona Groundwater Replenishment District (CAGRD) Assessment Rates

NOTES:

1 The Water & Replenishment Component covers the projected annual costs of satisfying replenishment obligations, including the purchase of long-term storage credits (LTSC) and the purchase and replenishment of water and effluent. For the Phoenix Active Management Area (AMA), replenishment is planned to be accomplished at direct underground storage facilities (USFs) and groundwater savings facilities (GSFs). For the Pinal AMA, replenishment is planned to be accomplished by the purchase of credits from CAWCD. For the Tucson AMA, replenishment is planned to be accomplished at USFs.

2 The Administrative Component covers CAGRD administrative costs, except labor-related costs associated with the acquisition of infrastructure and water rights. $2/AF has been added to this component to fund the Boards CAGRD conservation program.

3 The Infrastructure & Water Rights Component covers the cost to develop additional water supplies and the cost to construct additional infrastructure as the need arises.

4 The Replenishment Reserve Charge covers costs associated with establishing a replenishment reserve of LTSCs as provided in ARS Sections 48-3774.01 and 48-3780.01.

5 The components of the Contract Replenishment Tax—Scottsdale reflect the provisions in the Water Availability Status Contract to Replenish Groundwater between CAWCD and Scottsdale.

6 Enrollment Fees for Commercial Subdivisions are established per the November 5, 2015 CAP Board Amended Enrollment Fees and Activation Fee Policy. Enrollment Fees for Commercial Subdivisions are phased in over a two year period and starting in the 2018/2019 fiscal year forward are equal to the Member Land Enrollment Fee plus the Tucson AMA Activation Fee. If a Commercial Subdivision enrolls with more than 50 parcels, then the Commercial Subdivision Enrollment Fee applies on the first 50 parcels, and only the Member Land Enrollment Fee applies to the number of parcels over 50.

7 The Enrollment Fee is collected pursuant to the CAGRD Enrollment Fee and Activation Fee Policy adopted by the Board on May 1, 2008. A $2 per housing unit fee is included in the Enrollment Fee to help fund CAGRD's conservation program.

8 The Activation Fees are in accordance with the Preliminary 2014 / 15 –2019 / 20 CAGRD Activation fee schedule adopted by the Board on November 7, 2013.

9 The Annual Membership Dues for Member Lands and Member Service Areas are pursuant to the ARS Sections 48-3772.A.8 and 48-3779 as well as the Policy on Collection of CAGRD Annual Membership Dues adopted by the Board on April 7, 2011.

ASSUMPTIONS:

- Annual Membership Dues (AMDs) are set at the maximum allowed by the state statutes for all years, except for FY 2019/2020, which were softened by 15% to provide a smooth transition
- Water Replenishment & Replenishment Reserve rates are highly dependent on CAWCD rates
- Includes GRIC/GRWS/CAGRD Agreement, which has significant impact on previous Water Replenishment Rate in the Phoenix AMA

Pumping Power / Energy Costs

(General Fund)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Energy Purchases (MWH)					
Waddell	45,131	49,353	35,438	35,524	37,891
Navajo	1,941,631	1,864,229	1,663,702	-	-
Hoover B	140,127	135,460	132,887	135,546	135,546
Market Purchases	525,844	650,929	879,632	2,379,314	2,547,732
Total MWH	2,652,733	2,699,971	2,711,659	2,550,384	2,721,169
Energy Rates ($/MWH)					
Net Navajo	$ 33.76	$ 26.73	$ 26.75	$ -	$ -
Hoover B	51.14	53.49	42.86	39.06	39.06
Market Purchases	19.69	23.45	25.32	28.48	28.72
Grand Weighted Average $/MWH	$ 31.86	$ 27.29	$ 27.08	$ 28.65	$ 28.83
Energy Costs ($000)					
Net Navajo	$ 65,556	$ 49,828	$ 44,504	$ -	$ -
Hoover B	7,165	7,245	5,695	5,294	5,294
Market Purchases	10,353	15,267	22,272	67,769	73,160
Gross Energy Costs ($000)	$ 83,074	$ 72,340	$ 72,471	$ 73,063	$ 78,455
Energy Scheduling Services	$ 1,332	$ 1,093	$ 1,183	$ 1,301	$ 1,366
Energy Balancing Services	1,374	182	189	-	-
Shaping & Displacement Adjustment	1,295	4,115	1,528	-	-
Transmission - SRP	-	-	289	700	700
Transmission - Brady, Picacho & RR	-	-	632	500	500
Transmission - WECC	-	-	270	284	298
MWD Agreement Expense	105	85	86	75	70
Lake Pleasant Adjustment	4,150	7,722	(439)	3,006	2,098
Lake Roosevelt Adjustment	-	(644)	645	-	-
Total Energy Costs ($000)	$ 91,330	$ 84,893	$ 76,854	$ 78,929	$ 83,487


CAP
CENTRAL ARIZONA PROJECT

CAWCD DEBT INFORMATION

CAWCD is currently carrying three diverse debt vehicles: CAP Repayment Obligation (Federal Debt), Revenue Bonds Series 2016, and CAGRD Revenue Bonds Series 2019. Following is a brief synopsis of each.

CAP Repayment Obligation (Federal Debt)

The CAP Repayment Obligation, also known as the CAWCD Federal Debt, is a master repayment contract which CAP entered into with the Bureau of Reclamation in 1972, to repay its share of the reimbursable construction costs of the CAP system. The 50 year repayment period for each construction stage began upon substantial completion of each stage. The first stage was declared substantially complete on October 1, 1993; as a result, repayment of this obligation began in 1994. Based on the terms of the Master Repayment Contract and the subsequent repayment settlement stipulation, CAWCD is obligated to repay a total of $1.646 billion to the federal government. The balance of the obligation is projected to be $1.011 billion at the end of 2020, and $0.978 billion at the end of 2021.

Revenue Bonds Series 2016

Water Delivery O&M Revenue Bonds Series 2016 are secured by District revenues derived from Fixed O&M and capital replacement charges, to the extent attributable to the debt service on the bonds. The Bonds maturing on or after January 1, 2027 will be subject to call for redemption prior to maturity, at the option of the District, in whole or in part, on January 1, 2026 or on any date thereafter. The Bonds maturing prior to January 1, 2027 will not be subject to redemption prior to their stated maturity dates. The bonds have an original maturity amount of $45.46 million, due in varying amounts through 2036; interest rates vary among individual maturities ranging from 2.00% to 5.00%, with an overall interest rate of 3.305% (NIC). The bonds have an Original Issue Premium (OIP) of $8.85 million, which equates to a total issuance cost of $54.31 million. The balance of the obligations, including premium amortization, is projected to be $44.30 million at the end of 2020, and $41.89 million at the end of 2021.

CAGRD Revenue Bonds Series 2019

CAWCD, on behalf of CAGRD, entered into an agreement with the Gila River Indian Community (GRIC) and Gila River Water Storage (GRWS) for the purchase of 375,000 AF of Long Term Storage Credits (LTSCs) for the Pinal AMA, and 70,375 AF of LTSCs for the Phoenix AMA. The purchase price was $95 million, consisting of an initial payment of $65 million due 30 days after signing, and the remaining payment of $30 million due 6 months subsequent to the signing. Bonds were issued on 7/24/19 in the aggregate amount of $20 million, with the final bond maturing in 2025, and each bond carrying an interest rate of 2.45%. The balance of the obligations is projected to be $18.48 million at the end of 2020, and $14.96 million at the end of 2021.

FEDERAL DEBT SCHEDULE

(Thousands)

	2017 Actual	2018 Actual	2019 Projection	2020 Budget	2021 Budget
Sources of Funds					
Navajo-Related Revenues:					
SRP related revenues	$ 27,591	$ 29,254	$ 28,022	$ -	$ -
Other NGS net revenues	(17,033)	(8,625)	(1,210)	-	-
Shaping & displacement	419	4,115	1,528	-	-
Net Revenues - NGS	10,977	24,744	28,340	-	-
Net Navajo misc. revenues	519	(1,109)	18	500	510
Hoover 4.5 mil surcharge	2,838	3,292	3,095	3,000	3,100
Parker-Davis	2,594	2,732	2,715	2,700	2,700
Net CAP transmission revenues	(2,942)	(2,607)	6,979	788	788
Transmission line loss revenues	327	-	1,377	-	-
Land-related revenues:	-	-	-	-	-
Land use (net)	784	767	1,250	800	800
Land sales (net)	-	-	-	1,205	-
Interest on deposits	836	632	1,174	290	320
Total Credits Toward Repayment	$ 15,933	$ 28,451	$ 44,948	$ 9,283	$ 8,218
Uses of Funds					
Principal	$ 31,361	$ 32,929	$ 32,929	$ 32,929	$ 40,456
Interest	24,364	22,263	21,182	20,101	19,021
Gross Payment *(Due Jan. 20th following year-end)*	$ 55,725	$ 55,192	$ 54,111	$ 53,030	$ 59,477
(Net Due) / Excess Funds for Repayment	$ (39,792)	$ (26,741)	$ (9,163)	$ (43,747)	$ (51,259)
CAP NGS Energy Reconciliation	12,047	1,507	-	-	-
Net Funds (Due to)/from Federal Government	$ (27,745)	$ (25,234)	$ (9,163)	$ (43,747)	$ (51,259)

Federal Repayment Obligation

($ Thousands)

Payment Made	Payment Due			Principal Balance (December 31st)		
January 20th	Principal	Interest	Total	Interest Bearing	Non-Interest Bearing	Total
2019	32,929	22,262	55,191	633,807	410,044	1,043,850
2020	32,929	21,182	54,111	601,477	409,444	1,010,921
2021	32,929	20,101	53,030	569,148	408,844	977,992
2022	40,456	19,021	59,477	529,292	408,244	937,536
2023	40,456	17,689	58,145	489,436	407,644	897,080
2024	40,456	16,357	56,813	449,579	407,044	856,623
2025	42,808	15,025	57,833	407,221	406,594	813,815
2026	42,808	13,609	56,417	364,863	406,144	771,007
2027	42,808	12,194	55,002	322,505	405,694	728,199
2028	42,808	10,778	53,586	280,147	405,244	685,391
2029	44,063	9,363	53,426	236,535	404,794	641,329
2030	44,063	7,905	51,968	192,922	404,344	597,266
2031	44,063	6,447	50,510	149,310	403,894	553,204
2032	44,454	4,990	49,444	105,285	403,465	508,749
2033	44,454	3,519	47,973	61,238	403,056	464,295
2034	44,454	2,047	46,501	21,167	398,674	419,840
2035	44,454	707	45,161	10,583	364,802	375,386
2036	44,454	354	44,808	-	330,931	330,931
2037	44,454	-	44,454	-	286,477	286,477
2038	44,454	-	44,454	-	242,022	242,022
2039	44,454	-	44,454	-	197,568	197,568
2040	44,454	-	44,454	-	153,113	153,113
2041	44,454	-	44,454	-	108,659	108,659
2042	44,454	-	44,454	-	64,204	64,204
2043	44,454	-	44,454	-	19,750	19,750
2044	10,583	-	10,583	-	9,167	9,167
2045	9,167	-	9,167	-	-	-
2046	-	-	-	-	-	-

Revenue Bonds, Series 2016 - Debt Service Schedule

($ Thousands)

Payment Date: January 1st	Principal	Coupon	Interest	Annual Debt Service	Principal Balance December 31st
2019	1,565,000	5.00%	2,058,400	3,623,400	41,045,000
2020	1,645,000	5.00%	1,980,150	3,625,150	39,400,000
2021	1,725,000	2.00%	1,897,900	3,622,900	37,675,000
2022	1,760,000	5.00%	1,863,400	3,623,400	35,915,000
2023	1,845,000	5.00%	1,775,400	3,620,400	34,070,000
2024	1,940,000	5.00%	1,683,150	3,623,150	32,130,000
2025	2,035,000	4.00%	1,586,150	3,621,150	30,095,000
2026	2,120,000	5.00%	1,504,750	3,624,750	27,975,000
2027	2,225,000	5.00%	1,398,750	3,623,750	25,750,000
2028	2,335,000	5.00%	1,287,500	3,622,500	23,415,000
2029	2,450,000	5.00%	1,170,750	3,620,750	20,965,000
2030	2,575,000	5.00%	1,048,250	3,623,250	18,390,000
2031	2,705,000	5.00%	919,500	3,624,500	15,685,000
2032	2,840,000	5.00%	784,250	3,624,250	12,845,000
2033	2,980,000	5.00%	642,250	3,622,250	9,865,000
2034	3,130,000	5.00%	493,250	3,623,250	6,735,000
2035	3,285,000	5.00%	336,750	3,621,750	3,450,000
2036	3,450,000	5.00%	172,500	3,622,500	-

CAGRD Revenue Bonds, Series 2019—Debt Service Schedule

($ Thousands)

Payment Date: January 1	Principal	Coupon	Interest	Annual Debt Service	Principal Balance December 31st
2019	-	-	-	-	20,000,000
2020	1,520,000	2.45%	213,694	1,733,694	18,480,000
2021	3,520,000	2.45%	452,760	3,972,760	14,960,000
2022	3,605,000	2.45%	366,520	3,971,520	11,355,000
2023	3,695,000	2.45%	278,198	3,973,198	7,660,000
2024	3,785,000	2.45%	187,670	3,972,670	3,875,000
2025	3,875,000	2.45%	94,938	3,969,938	-
	$20,000,000		$1,593,780	$21,593,780	

Dated Date	07/24/2019
Delivery Date	07/24/2019
First Coupon	01/01/2020
Par Amount	$20,000,000


CAP
CENTRAL ARIZONA PROJECT

Reconciliation of Operation, Maintenance & Replacement Costs

CALCULATION OF FIXED OM&R

(Thousands)	2019 Projection	2019 Published Rate	2020 Budget	2020 Published Rate	2021 Budget	2021 Advisory Rate
General Fund Operating Expenses	$ 241,477	$ 254,828	$ 244,981	$ 239,508	$ 253,917	$ 249,125
Adjustments for O&M Expenses						
Depreciation & Amortization	$ (48,215)	$ (49,355)	(49,710)	(49,463)	(51,017)	(51,399)
Pumping energy and capacity charges	(75,663)	(89,375)	(77,445)	(76,695)	(81,989)	(79,729)
Transmission Adjustment	(1,191)	(1,530)	(1,481)	(1,250)	(1,504)	(1,666)
Underground storage site O&M	(1,302)	(1,247)	(1,208)	(1,252)	(1,161)	(1,257)
Extraordinary Maintenance (when part of "Big R")	(6,220)	(6,844)	(160)	(408)	-	(2,450)
NIA Expenses Relating to NEPA	(24)	-	-	-	-	-
Other income	(371)	(650)	(524)	(459)	(511)	(872)
Fixed O&M payment on tribal ICS	(8,424)	-	(6,225)	(3,960)	-	(3,040)
DCP Mitigation Cost Adjustment	-	-	(371)	(343)	(406)	-
Wheeling Capacity Improvement Study	-	(500)	(500)	(500)	(500)	-
CAP's Contribution toward Ag Forbearance Programs	-	(287)	-	-	-	-
Recovery Expenses	-	-	(2,500)	(32)	(3,000)	(32)
Total Adjustments	(141,410)	(149,788)	(140,124)	(134,362)	(140,088)	(140,445)
Fixed O&M Expenses	**$ 100,067**	**$ 105,040**	**$ 104,857**	**$ 105,146**	**$ 113,829**	**$ 108,680**
Pumping Energy & Hoover capacity charges						
Pumping energy and capacity charges	75,663	89,375	77,445	76,695	81,989	79,729
Transmission Adjustment	1,191	1,530	1,481	1,250	1,504	1,666
Net Shaping & Displacement	(1,528)	(500)	-	-	-	-
Total Pumping Energy & Hoover capacity charges	**$ 75,326**	**$ 90,405**	**$ 78,926**	**$ 77,945**	**$ 83,493**	**$ 81,395**

CALCULATION OF RECONCILED WATER RATES

	2019 Projection	2019 Published Rates	2020 Budget	2020 Published Rate	2021 Budget	2021 Advisory Rate
Water Delivery Costs *(Thousands)*						
Fixed O&M Expenses	$ 100,067	$ 105,040	$ 104,857	$ 105,146	$ 113,829	$ 108,680
Total Pumping Energy Expenses	75,326	90,405	78,926	77,945	83,493	81,395
Water Deliveries *(Acre-Feet)*						
Total water deliveries with credits	1,392,096	1,456,629	1,404,493	1,391,868	1,467,978	1,427,978
Take or Pay adjustment	6,000	10,000	6,000	6,000	6,000	6,000
Billed Fixed OM&R Water Volume	1,398,096	1,466,629	1,410,493	1,397,868	1,473,978	1,433,978
Pumping Energy Rate 1 Water Volume	1,392,096	1,456,629	1,404,493	1,391,868	1,467,978	1,427,978
Water Delivery Rate *($/AF)*						
Calculated Fixed O&M Rate	$ 71.57	$ 72.00	$ 74.34	$ 75.00	$ 77.23	$ 76.00
Capital Replacement Component ("Big R")	24.00	24.00	24.00	24.00	24.00	24.00
Total Fixed OM&R	**95.57**	**96.00**	**98.34**	**99.00**	**101.23**	**100.00**
Navajo Decommissioning Rate	0.28	0.28	-	-	-	-
Calculated Pumping Energy Rate	54.11	61.72	56.20	56.00	56.88	57.00
Total Pumping Energy Rate 1	**54.39**	**62.00**	**56.20**	**56.00**	**56.88**	**57.00**
Total Delivery Rate	**$ 149.96**	**$ 158.00**	**$ 154.54**	**$ 155.00**	**$ 158.11**	**$ 157.00**


CAP
CENTRAL ARIZONA PROJECT

Policies, Guidelines & Practices

Operational and Financial Objectives

Board

The policies and governing principles subscribed to by the Central Arizona Water Conservation District (CAWCD or District) Board of Directors (Board) provide direction to staff in accomplishing the financial and operational objectives of Central Arizona Project (CAP). These policies and principles ensure that financial decisions are made with full public disclosure and opportunity for public input. As the state's largest provider of renewable water supplies, open and interactive public discussions of financial and budget issues will ensure that public trust is maintained and enhanced.

Management

The General Manager (GM), in consultation with the Management Council (MC), using the directives provided in the Board's Human Resources Policy, establishes policies, programs and practices that protect the assets of CAP. Policies are in place that strive to recruit, select and retain qualified employees who, using established policies, programs and practices, will protect the resources that have been entrusted to their use and care by the public.

Finance and Accounting

The finance and accounting guidelines and practices establish the basis for the overall financial planning and management framework at CAP. These guidelines and practices are established by accounting guidelines (i.e., Generally Accepted Accounting Principles (GAAP) and Governmental Accounting Standards Board (GASB)), laws and regulations, and internally developed procedures that help ensure the prudent and professional financial management practices needed to achieve and maintain long-term financial stability.


CAP
CENTRAL ARIZONA PROJECT

Board Policies and Guidelines

Policy Name	Board Approval	Synopsis
CAP Water Allocations		
Water Allocation		• Federal Register Notice dated March 24, 1983, allocating CAP water • Federal Register Notice dated February 5, 1992, allocating CAP water
Excess CAP Water policy for 2020 – 2024	06/04/09 03/06/14 09/05/19	Establishes: • Process for allocation of excess water for: ◊ Ag Settlement Pool ◊ Water Availability contract ◊ CAGRD Replenishment Obligation ◊ Statutory firming pool including Arizona Water Banking Authority, Bureau of Reclamation and CAGRD Replenishment Reserve ◊ Supplemental Firming Pool
Policy Regarding the Relinquishment & Transfer of CAP Municipal & Industrial (M&I) Subcontract Allocation, effective 12/1/2017	09/06/96 11/03/16	Requires: • CAP to work with Arizona Department of Water Resources (ADWR) in all transfers and relinquishments • all financial transactions be made through CAP • financial arrangements be made in accordance with the policy • no financial benefit to the transferring entity • subcontractors outside CAP service area to notify CAP and ADWR of their intent to transfer
Environment		
Environmental Compliance Policy	12/02/93	Requires: • CAP to comply with all applicable environmental laws and regulations
CAGRD Conservation Program	03/02/06	Provides for better understanding of the CAGRD by its members and reduction in members' water use. Program components include: • education • partnerships/collaboration • study to determine groundwater use efficiency of CAGRD Member Lands (ML) • funding
Bylaws		
Bylaws of Central Arizona Water Conservation District (CAWCD)	04/07/77 11/02/17	Provides organization structure and regulations for the governing Board

Policy Name	Board Approval	Synopsis
		CAP Facilities
Interstate Off-stream Underground Storage Policy	06/22/00	Provides for: • pricing philosophy for interstate excess water • excess water for the interstate use is the lowest priority • storage and recovery is consistent with state water management goals and CAP operational needs • CAP is a party to agreements that use the CAP system or deliver to a CAP contractor or subcontractor • CAP is a party to agreements for Intentionally Created Unused Apportionment • interstate entity has a formal water resource plan to end reliance on interstate storage
Recreational Trail Policy	06/20/02	Provides for: • CAP to make right-of-way available for multi-use non-motorized recreational trail • trail to be located outside CAP's security fence • CAP to facilitate agreements between municipality sponsors and Reclamation • CAP to work with municipal planning departments to request new developments provide adequate width or setback to accommodate trail development in areas where such is required • CAP will consider development of trails on CAP-owned lands that are being operated as recharge projects
Use of Excess Canal Capacity (Revised 2005, 2006)	12/05/02 09/07/06	Provides for: • non-transferable interim set asides of canal capacity for wheeling non-project water • supersedes past Board policies related to the use of excess canal capacity (i.e., Position Statement Relative to Transportation of Non-Project Water and Statement of Policies and Principles Regarding the Use of CAP Facilities to Facilitate Indian Water Rights Settlements) • CAP acquiring and allocating new supplies to be delivered through the excess canal capacity • reserving decisions about the use of excess canal capacity over and above that needed to satisfy interim set asides
Energy Risk Management Policy	10/07/04 02/05/15	Provides for: • framework for identifying, assessing and managing energy-related risks • alignment of energy trading and marketing activities with Board objectives • process and internal controls to manage energy risk exposure • standardized methods for measuring risks • risk limits within which management is authorized to act • periodic reporting to the Board
Underground Storage Facility Capacity Priority Policy	05/02/13	Provides for: • methodology for scheduling and if necessary, prioritizing recharge capacity at underground storage facilities owned by CAWCD

Policy Name	Board Approval	Synopsis
Financial		
CAP Rate Setting Policy	11/06/97 02/01/18	Establishes strategy, philosophy and process regarding goals, cost measurement, charges for subcontract water delivery, capital and excess water, and forward announcement of prices, pools and price stability Provides for biennial rate-setting, in accordance with the biennial budget process
Approved Water Rate Schedule	June of Even Numbered Years	Establishes firm delivery rates for the following two years and advisory rates for the subsequent four years
CAGRD Annual Membership Dues	04/07/11 11/03/16	Provides methodology and process for establishing annual membership dues for CAGRD Member Lands (ML) and Member Service Areas (MSA)
CAGRD Assessment Rate Setting Policy	04/05/01 06/06/10	Establishes purpose, process and methodology for computing components of CAGRD assessment rates
CAGRD Enrollment Fee and Activation Fee Policy	05/06/04 11/05/15	Provides mechanism to collect fees from Member Lands and Member Service Areas to be used to acquire water rights and develop infrastructure necessary for the CAGRD.
Recharge Rate Setting Policy	10/02/03 05/06/10	Establishes process and methodology for setting recharge rates that provides for cost recovery, rate predictability and stability, operational efficiency, accountability and legal compliance
Finance, Audit & Power Mission Statement	05/07/09	Provides assistance to the Board in fulfilling its responsibilities to the electorate relating to accounting, auditing, the quality and integrity of the Districts financial reports, budgetary and fiscal practices, operational security, energy risk management, and other power and transmission matters
Administration & Human Resources		
Human Resources & Management Practices	09/05/02	Provides for development of policies, programs and procedures in the areas of Administration, Compensation and Benefits, Employment, and Environment, Health, Safety and Security
Inspection Standards and Retention Requirements for Water Provider Records Relating to CAGRD Annual Reports	03/02/06 11/03/16	Provides for: • inspection procedures to be followed by CAP when inspecting records of CAGRD water providers • record retention requirements for CAGRD water providers
CAWCD Executive Sessions and Executive Session Minutes	09/06/18	Provides approved purposed for executive sessions and procedures for executive minutes

Policy Name	Board Approval	Synopsis
Use Of Colorado River Water		
Statement of Policy to Encourage Maximum Use of Available Colorado River Water	09/03/87 03/08/01	Encourages: • direct use or storage of CAP water • water users to build and operate underground recharge projects • CAP to use CAP funds to build and operate underground recharge projects for users on a reimbursable basis • CAP to build and operate State Demonstration Projects for use by CAGRD, water user entities and AWBA
CAP Water Use		
Refinancing of 9(d) Debt	05/18/00	Requires: • CAP to provide state parties' share of 9(d) debt for non-Indian agriculture (NIA) distribution systems • future subcontractors of NIA priority water to pay CAP proportionate amount with interest • CAGRD eligibility for relinquished NIA water
Excess Water Marketing for Non-Indian Agriculture 2004 through 2030	05/18/00	Promotes use of excess CAP water by non-Indian agriculture (NIA) Provides: • high priority pools of excess water for NIA use through 2030 • charges to be equal to Pumping Energy Rate charged to long-term subcontractors • monthly capacity rights equal to long-term subcontractors' rights • program for allocating NIA pool to be determined (12/5/2002 supplemental policy)
Supplemental Policy for Marketing Excess Water for NIA Use — 2004 through 2030	12/05/02 10/02/14	Promotes use of excess CAP water by non-Indian agriculture (NIA) Provides: • allocation of NIA pool • eligibility requirements for participation as GSF • guidelines for incentive recharge water availability and priority
Policy Regarding the Dedication of CAP's Existing Underground Storage Credits to CAGRD for Use in Establishing the Replenishment Reserve	10/06/05 11/03/16	Provides for: • dedication of long-term stored water credits for use by CAGRD in establishing a replenishment reserve • payment by CAGRD to CAP for credits in the year in which credits are used

Policy Name	Board Approval	Synopsis
		CAP Water Use
Compensated Conservation Program	06/06/19	Establishes a voluntary, transparent and competitive process for CAWCD to solicit proposals from CAP M&I and Indian Priority contractors and subcontractors who are willing to reduce historical, beneficial consumptive use of their CAP entitlements for compensation by CAWCD
CAGRD Long-Term CAP Contract to Satisfy the Arizona Water Banking Authority's Firming or Interstate Obligations	06/08/17	Allows the CAGRD to forego planned deliveries of Project Water scheduled to underground storage facilities (USFs) in exchange for an equal amount of AWBA long-term storage credits being assigned to the CDA, Conservation District Account
CAGRD Water Supply Program Principles	11/07/13	Provides principles for the CAGRD acquisition of long-term water supplies to meet its replenishment obligations
Exchanges of CAP Entitlements of Subcontractors Outside CAWCDs Service Area	07/07/94	Provides for: • The use of groundwater in Active Management Areas • Promoting the early use of CAP water • Assuring the long term availability of a water supply for the community which seeks to transfer its CAP entitlement


CAP
CENTRAL ARIZONA PROJECT

Management Policies

Policy Name	Policy Approved	Synopsis
		Administration
Purchasing	03/02/00 07/25/17	Provides for: • maintaining and administering a procurement program to acquire goods and services • achieving balance between minimizing the cost for goods and services and striving for reasonable response and flexibility • specifying the approval authority of staff positions and the GM
Fleet Vehicles	01/05/01 01/01/07	Provides for: • management and control of the acquisition, delivery, assignment, pooling, replacement, disposal and maintenance of fleet vehicles • control of vehicle administration, costs and integration of fleet vehicles into company operations
Purchasing and Fleet Credit Card Program	10/06/03 10/20/15	Provides: • guidelines and establishes specific limitations for the use of purchasing and fleet credit cards by employees as part of normal operations
Project Approval and Implementation	04/11/01 04/09/08	Provides for: • structure to evaluate, prioritize and oversee capital projects • facilitation of planning, approval, implementation and completion of capital projects • communication method among project managers and management
Travel	06/04/01 10/20/15 01/28/19	Provides for: • prudent expenditure of funds budgeted for travel • proper authorization and recording of travel-related expenses • reimbursement of authorized business-related expenses incurred while on travel status
General Signature Authority	1/17/11 4/11/11	Provides: • standard guidance and reference point regarding signing authorization
Property	06/15/01 08/28/14 01/25/18	Provides for: • physical tracking and accounting of the acquisition, assignment, transfer, capitalization, depreciation and disposal of property • safeguarding against loss, theft or misuse
Business Continuity Management	11/23/16	Ensures: • that all business activities remain at normal or near-normal performance levels following an event that has the potential to disrupt or destroy the organization's ability to provide uninterrupted services to its key stakeholders
Asset Management	02/27/18	Provides: • Provides general guidance for asset management at CAP and is intended to ensure decisions throughout the organization are informed by an understanding of service, risk and life cycle cost

Policy Name	Policy Approved	Synopsis
Records and Information Management	05/12/00 08/31/10	Provides for: • management of CAP records, including all information, paper and electronic data • use of a Uniform File Coding System, retention system and disposition/destruction schedule
Risk Management	11/01/04 10/16/08	Assigns: • responsibility for managing risk and protecting CAP from financial harm
Business Meals	05/20/02 11/03/15 11/05/18	Provides: • guidelines and sets limits for business meals, meetings events and recognition/reward functions
Extraordinary Event	05/18/09 11/23/16	Establishes: • special operating procedures that may be implemented by the GM as a result of an extraordinary, emergency event
Media Relations	04/18/11	Identifies: • CAP's Communications and Public Affairs Group as the principal point of contact for all members of the media
Social Media Use	04/18/11	Provides: • protocol and procedures for the use of social media to promote and publicize CAP • prohibits postings and comments that violate CAP policies, are offensive to others or are discriminatory
Compensation and Benefits		
Paid Leave	09/20/90 05/10/17	Provides for: • paid time off for vacations based on years of service and hours worked • paid time off for holidays and personal time based on hours worked • paid time off for specific absences (e.g., jury duty, court summons, marriage, funeral of co-worker, death of family member) • income protection when employees cannot work due to their own or a family member's illness or injury
Uniformed Service Absence	09/20/90 05/12/06	Provides for: • income protection when on short-term and long-term tours of duty • leave of absence when on voluntary and involuntary active duty, training for active duty, and full-time National Guard duty • reinstatement or reemployment opportunities upon honorable discharge
Employee Recognition Programs	03/01/08 07/22/13 04/11/18	Provides for: • guidelines and establishes a process to promote and recognize exceptional employee effort that provides immediate and visible recognition for employee contributions
Victim's Leave Act	01/14/04 04/29/09	Provides for: • time off to attend juvenile and adult criminal court proceedings associated with being a crime victim

Policy Name	Policy Approved	Synopsis
Overtime	09/20/90 02/09/16 05/30/19	Provides for: • scheduling of overtime hours • compensation for overtime hours worked in accordance with Fair Labor Standards Act • compensation for call out pay
Employee Assistance Program	11/01/04	Provides for: • confidential and voluntary assistance to employees and family members • opportunity to find solutions to personal problems before such problems interfere with work performance
Pay Administration	09/20/90 11/03/15 05/30/19	Provides for: • pay evaluation and administration program that enables CAP to attract and retain a qualified workforce • maintaining internal equity through defined compensable factors • maintaining external equity through pay practices and pay ranges • consideration to the external labor market • compensation flexibility to address changing business needs and economic conditions • rewarding employees based on performance achievement
Life Insurance Benefits	09/20/90 08/21/12	Provides for: • employer paid group term life insurance • employer paid accidental death and dismemberment insurance
Health Benefits	09/20/90 11/29/12	Provides for: • making group medical and dental health plans available to employees and eligible dependents with cost sharing by the employee and employer
Tuition Reimbursement	12/03/98 07/17/17	Provides for: • job related educational assistance upon successful completion of courses taken at colleges, universities and trade schools
Family and Employee Medical Leave	12/01/97 12/08/15	Provides for: • compliance with FMLA • usage for the birth or adoption of a child, to care for a family member with a serious health condition or the employee's serious health condition
Americans with Disabilities Act (ADA)	10/17/11	Provides for: • equal opportunity to all qualified individuals with disabilities • compliance with legal and regulatory requirements to ensure full accessibility to all aspects of employment • reasonable accommodations for applicants and employees with disabilities
Certifications and Memberships	05/01/02 11/01/04	Assigns: • financial assistance for job-related certifications, certification activities and professional or technical memberships

Policy Name	Policy Approved	Synopsis
		Employment
Recruitment and Selection	12/02/99 11/19/12	Provides: • process for recruiting and selecting the candidate with the greatest chance of success to fill job vacancies
Relocation Assistance	01/14/04 10/04/11	Provides for: • reimbursement of covered expenses associated with relocating a household for prospective and current employees
Temporary Employee	11/01/04 06/13/17	Provides for: • employment of temporary employees and independent contractors for a specified period of time for a specified purpose
Corrective Action	12/03/98 10/04/10	Provides for: • coaching and counseling of employees based on documented or observed facts in response to unsatisfactory employee performance or conduct • progressive discipline and termination for violations of work rules or for unsatisfactory performance
CAP Resolve	08/01/96 11/01/04	Provides for: • multiple, progressive steps for resolving workplace issues in a user-friendly and timely manner • legitimate alternatives to litigation
Vehicle Use	09/20/90 09/13/13	Provides for: • employees who are required to drive during the course of employment to have a valid driver's license and maintain a good driving record
Ethical Business Conduct	02/04/99 09/27/06	Provides for: • employees to refrain from engaging in conduct or activity that could raise questions about the company's honesty, impartiality or reputation, or could otherwise cause embarrassment to the company
Nepotism	12/01/97 11/01/16	Provides for: • restricted work relationships of grandfathered family members
Discrimination and Harassment-Free Workplace	12/03/98 11/22/16	Provides for: • treating individuals with dignity and respect equal employment opportunities • relationships among employees to be businesslike and free of bias, prejudice and harassment • non-discriminatory practices, including a policy against harassment • employees to report perceived incidents of discrimination or harassment

Policy Name	Policy Approved	Synopsis
Apprenticeship Program	06/26/98 08/08/16	Provides for: • non- and semi-skilled employees to become proficient and skilled in a selected trade through on-the-job training and supplemental technical and theoretical study
Work Schedules	07/22/98 06/05/11	Provides for: • various work schedules that meet the needs of the company, customers and employees
Attendance	03/30/98 11/01/04	Clarifies: • expectations regarding attendance, punctuality and reliability
Attendance of Headquarters Events	08/13/03 08/17/10	Ensures: • consistent application of benefits and opportunities across the company by providing policy guidelines for attending management-approved events at headquarters (HQ) for employees whose reporting point or primary job duties/responsibilities are not at HQ
Personal Appearance	01/12/05	Clarifies: • expectations regarding personal appearance, personal hygiene and appropriate attire
Travel for Training	07/15/02 07/07/14	Provides for: • flexible scheduling, compensation and other employment conditions while on travel status associated with training
Portal to Portal	03/30/98 11/01/04	Provides: • expectations regarding travel to and from temporary living accommodations while on travel status
Telecommunications	06/04/10 01/01/12 12/19/17	Provides for: • management and control of company telephones, mobile phones, tablets, laptops or hybrid devices which access CAP information systems
Diversity and Inclusion	12/13/10 02/27/18	Provides for: • CAP's intent to foster an atmosphere of acceptance and support for employees of diverse backgrounds
Vehicle Accident Review	06/27/11	Provides for: • improvement in overall safety of operations • establishing fair and impartial review system for all accidents • establishing accident cause, whether accident was preventable, uniformity of accountability and make recommendations for corrective action

Policy Name	Policy Approved	Synopsis
		Environment, Health, Safety and Security
Workers' Compensation and Work-Related Illnesses and Injuries	09/20/90 04/04/11	Provides for: • income protection for employees disabled as a result of work-related illnesses or injuries • opportunities to return to work on light duty or restricted duty
Drug & Alcohol Abuse	12/03/98 07/15/13	Provides for: • establishing and maintaining a workplace free from the effects of alcohol, misuse of legal drugs and the use, possession or distribution of drugs • pre-employment drug testing • reasonable suspicion testing
Information Security	11/14/02 06/25/12 12/19/17	Provides for: • authorized use of computers, networks and other information system resources • protecting the confidentiality, integrity and availability of information and information systems • reporting information security violations and incidents
Safety	12/03/98 10/04/10	Provides for: • maintaining a safe work environment • reducing the number of incidents of injury, lost time associated with injuries and property damage accidents through the use of proper equipment, training & education, accident investigation and consistent improvement
Weapon-Free Workplace	12/08/99	Provides for: • safe work environment • prohibiting firearms, explosives or dangerous offensive weapons on company property or in company vehicles
Environmental Compliance	10/09/03 02/28/11	Provides for: • compliance with all applicable environmental laws and regulations • identification of policies, plans, guides, programs and permits governing CAP's compliance with laws and regulations • employees to report violations and environmental contaminations
Identification Badges	11/17/03 11/01/04	Provides for: • employees, contractors and visitors to wear identification badges at all times while at Headquarters
Return to Work (RTW) Program	12/01/97 06/13/11	Provides for: • reasonable accommodation to employees during medical recovery from a work or non-work related injury or illness

Policy Name	Policy Approved	Synopsis
Violence-Free Workplace	12/01/97 04/11/11	Provides for: • safe work environment • zero tolerance of threats or acts of violence, acts of intimidation or coercion • employees to report incidents of violence and cooperate in investigations
Tobacco-Free Workplace	03/30/98 08/19/14	Provides for: • restrictions on tobacco and e-cigarette use in work areas
Safety Incident Review	03/12/03 10/04/10	Provides: • process for timely and thorough investigation of safety incidents, including accidents, safety policy or rule violations, job safety analysis violations, unsafe practices in the workplace and work related illness and injury, to determine root cause and prevent recurrence • opportunities for coaching, action planning and corrective action
Hazardous Substance Control	11/01/10 07/30/14	Provides: • guidelines for the purchase, storage, distribution, disposal and reporting of hazardous substances used at CAP
Remote Access	10/06/06 04/18/11 12/19/17	Provides: • definition of security requirements for connecting to CAP's network from a non-CAP network


CAP
CENTRAL ARIZONA PROJECT

Finance & Accounting Practices

Synopsis	
Accounting & Financial Practices	It is the practice of CAP to: • maintain an accounting and financial reporting system that conforms to GAAP adopted by the GASB • perform an independent audit of CAP's financial statements annually and have the statements completed within 120 days of the end of the fiscal year to ensure compliance with CAP's bond indentures (if applicable) • establish and maintain internal controls that promote the reliability, integrity and timeliness of financial and operational information
Basis of Accounting	CAP's activities are accounted for under the accrual method and in compliance with GASB Statement No. 34. Under Enterprise Fund accounting, CAP is a single accounting entity for financial reporting purposes. However, within this single accounting entity, CAP has identified a number of financial activities that it wishes to track separately, referred to as "funds." These funds are as follows: General Fund, CAGRD Account, Supplemental Water Account and Captive Insurance Fund. The use of the term "fund" for these separate activities does not have any particular accounting significance. CAP is not required to, and does not, publish separate financial statements for any of the individual funds, except for the consolidated statements and CAP's captive insurance company.
Basis of Budgeting	The annual budget includes a series of financial statements that follow the accrual basis of accounting. Revenues are recognized in the period they are earned and expenses are recognized in the period they are incurred. Because the annual budget, audited financial statements and quarterly budget reviews follow a consistent format, the readers are able to compare and understand the information contained in each document.
Budget Approval	CAP is not required to have a legally adopted budget; therefore, funds are not subject to appropriation. However, it is the practice of CAP to develop a budget that is reviewed and approved by the Board. CAP is not required to prepare a balanced budget where total estimated revenues equal total estimated expenditures.

Synopsis	
Capital Assets	CAP will maintain its infrastructure and equipment at a level sufficient to divert CAP's full entitlement of Colorado River water, maintain water deliveries, protect CAP's capital investment and minimize future maintenance and replacement costs.
Capitalization Policy	The following criteria is used to determine whether the cost of an asset is capitalized or expensed: • Non-capitalized Expenditures: ◊ In general, all expenditures which do not add significantly to the value or utility of an existing asset should be expensed in the current period and included in the Operating Budget; such expenditures include, but are not limited to, normal repairs, spare parts, routine maintenance, relocation and storage • Capitalized Expenditures: ◊ Movable property: should be capitalized if the property has: (a) a useful life of 3 years or more; and (b) an acquisition cost of $25,000 or more ◊ Land and Improvements: land acquisition shall be capitalized; land improvements shall be capitalized and depreciated; long-term leases, easements, or rights-of-way shall be capitalized and depreciated over the term of the transaction ◊ Buildings and other structures: new structures with a cost of $25,000 or more shall be capitalized ◊ Newly installed plant machinery & equipment: installed units of machinery and equipment with a cost of $25,000 or more shall be capitalized ◊ Costs subsequent to acquisition: ♦ additions costing $25,000 or more that extend, enlarge or expand an existing asset shall be capitalized ♦ replacements and betterments that are not recurring in nature and increase the use value and extend the useful life of the asset shall be capitalized
Investment Management	ARS Title 48, Chapter 22, Article 1.0 governs all funds received on behalf of CAP. ARS 48-3712(A)(5) specifies that excess funds not immediately required must be invested with the Arizona State Treasurer pursuant to ARS 35-313. A listing of State Treasurer investments permitted by law is detailed under ARS 35-313.
Cash Management	The objectives of CAP's cash management guidelines are to ensure the: (a) safety of principal by maximizing investment income while maintaining the preservation of capital; (b) cash and investment fund balances will remain sufficiently liquid to enable CAP to meet all operating requirements and expenses that might be reasonably anticipated; and (c) investment pools and fund balances shall be managed with the objective of attaining, at a minimum, a market-average rate of return, taking into account the constraints of state-mandated statutes and cash flow needs.

Synopsis

Debt Policy	• Debt Limitations ◊ CAP's debt, aside from the debt to the federal government for the repayment of the reimbursable costs of CAP, is limited to $500 million for revenue bonds and is not limited to general obligation bonds. General obligation bonds are subject to voter approval. ◊ The general policy of CAP is to fund Operations, Maintenance and Replacement (OM&R) and the Capital Improvement Program (CIP) on a "pay as you go" basis from the water delivery and property tax revenues each year. Extraordinary expenditures will be funded from reserves. If reserves are not sufficient, CAP may issue either revenue bonds or general obligation bonds, subject to applicable law. • Derivatives ◊ CAP will not invest in derivatives without specific approval from the Board. • Debt Structuring ◊ CAP will attempt to match the term of issued debt with the useful lives of assets funded by such debt, without limitation. ◊ CAP may issue fixed or variable rate debt, as conditions dictate. CAP may issue debt with premiums or discounts, as conditions dictate. CAP may issue debt with equal payment provisions, equal principal amortization, deferred principal payments, or any other structure that meets the needs of CAP, without limitation. • Debt Issuance Practices ◊ CAP will issue new or refunding debt only under the advice of a qualified financial advisor and underwriter, who will be selected according to CAP's purchasing policy. Pricing will be negotiated between CAP and the underwriter with input from the financial advisor. CAP will seek credit ratings from at least two nationally recognized rating agencies. The Board will determine the minimum acceptable credit rating for any issuance of debt. The Board will determine the refunding provisions for any issuance of debt. • Debt Management Practices ◊ Bond proceeds will be invested according to applicable Arizona law. Guaranteed Investment Contracts will be utilized as available and applicable. Arbitrage rebate calculations will be completed annually and payments submitted to the federal government as required. Appropriate market disclosures will be filed. Investor communications will be provided according to applicable debt covenants.
Financial Reporting	It is the practice of CAP to: • prepare and issue financial reports on a monthly, quarterly and annual basis; these reports are prepared at a hierarchical level, from the lowest (cost center) to the highest (consolidated financial statements) • on a quarterly basis, requires cost center managers to prepare a variance analysis that explains significant variances to budget for year-to-date actual expenditures and projected full-year expenditures • on a quarterly basis, requires Finance to prepare and present a Quarterly Financial Review for the Management Council and the Finance, Audit Committee of the Board


CAP
CENTRAL ARIZONA PROJECT


Welcome To
Arizona
County Profiles

Arizona's Largest Employers

Arizona's 5 Largest Government Employers

Rank		2018 Emp
1	State of Arizona	36,310
2	City of Phoenix	13,776
3	Maricopa County	12,939
4	Arizona State University	12,715
5	University of Arizona	9,442

Arizona's Largest Non Governmental Employers

Rank		2018 Emp	Rank		2018 Emp	Rank		2018 Emp
1	Banner Health	44,718	16	Bank of America Corp.	9,200	33	Cigna Corp.	4,889
2	Walmart Stores Inc.	34,071	17	Freeport-McMoran Inc.	8,759	34	Starbucks Corp.	4,700
3	Kroger Co.	20,530	18	Bashas' Supermarkets	8,519	35	USAA	4,700
4	Wells Fargo & Co.	16,161	19	Amazon.com Inc.	8,500	36	Southwest Airlines Co.	4,661
5	Albertsons Companies	14,500	20	Target Corp.	8,400	37	Sprouts Farmers Market	4,526
6	McDonald's Corp.	13,000	21	Honeywell International Inc.	7,792	38	Marriott International	4,500
7	CVS Health	12,100	22	Circle K	7,478	39	Subway	4,500
8	Raytheon Co.	12,000	23	Mayo Foundation	7,436	40	TMC Healthcare	4,452
9	HonorHealth	11,919	24	State Farm	7,200	41	Lowes Companies Inc.	4,400
10	Dignity Health	10,562	25	UnitedHealthcare	7,194	42	Boeing Co.	4,336
11	Intel Corp.	10,400	26	American Express Co.	7,000	43	Roman Catholic Diocese of Phoenix	4,316
12	The Home Depot Inc.	10,200	27	Pinnacle West Capital Corp.	6,259	44	Charles Schwab & Co.	4,042
13	JP Morgan Chase & Co.	10,000	28	Walgreen Co.	6,088	45	Cox Enterprises	3,986
14	American Airlines Group	10,000	29	Costco Wholesale Corp.	5,569	46	Amerco	3,843
15	Tenet Healthcare Corp.	9,483	30	Salt River Project	5,209	47	Goodwill of Central and Northern AZ	3,842
			31	United Parcel Service	5,000	48	Steward Health Care	3,600
			32	Phoenix Children's Hospital	4,900	49	Northern Arizona Healthcare	3,600
						50	Knight-Swift Transportation	3,500

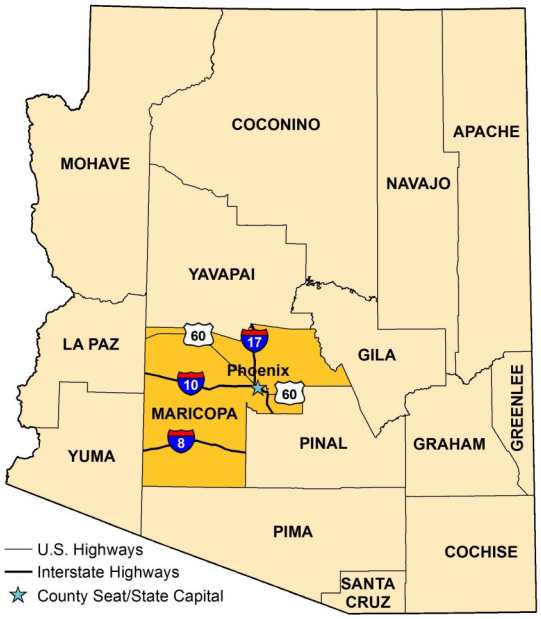
County Profile for

Maricopa County

County Seat: Phoenix

ARIZONA COMMERCE AUTHORITY

Maricopa County, named after the Maricopa Tribe, was created from portions of Pima and Yavapai counties in 1871. It was the fifth county formed in Arizona, and eventually portions were used to create Gila and Pinal counties.



In the late 19th century, citizens living far south of Prescott, the territorial capital and site of the Territorial Legislature, petitioned for a more local seat of government. Residents of the Salt River Valley and the Gila River area wanted a new county in their respective locations. After weighing both proposals, the legislature agreed with the Salt River Valley group and created Maricopa County. In 1889, Phoenix became the final site of the territorial capital and retains its status as Arizona's capital city.

More than half of the state's population resides in Maricopa County, which includes the cities of Phoenix, Mesa, Glendale, Scottsdale, Tempe, Chandler, Peoria and the town of Gilbert. This metropolitan area is the state's major center of political and economic activity. In addition to housing the state capital, the county is home to a growing high-tech industry; manufacturing and agricultural industries; 15 institutions of higher learning, including Arizona State University and the Thunderbird Garvin School of International Management; various cultural attractions; major league professional basketball (Phoenix Suns and Phoenix Mercury), football (Arizona Cardinals), hockey (Phoenix Coyotes) and baseball's 2001 World Champion Arizona Diamondbacks; and Phoenix Sky Harbor International Airport, fifth busiest in the world with over 1,300 daily flights.

Today Maricopa County measures 9,222 square miles, 98 square miles of which is water. Twenty-nine percent of this area is owned individually or by corporation, and 28 percent is owned by the U.S. Bureau of Land Management. The U.S. Forest Service and the State of Arizona each control 11 percent of the county; an additional 16 percent is owned by other public entities. Almost 5 percent is Indian reservation land.

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County Profile for

Maricopa County, Arizona

ARIZONA COMMERCE AUTHORITY

POPULATION

	2000	2010	2017
Arizona	5,130,632	6,401,569	6,965,897
Maricopa County	3,072,149	3,824,058	4,221,684
Incorporated Cities & Towns			
Phoenix	1,321,045	1,449,242	1,579,253
Mesa	396,375	439,929	481,275
Glendale	218,812	227,217	239,858
Chandler	176,581	236,687	257,948
Scottsdale	202,705	217,365	242,540
Gilbert	109,697	209,048	246,423
Peoria	108,364	154,171	171,587
Tempe	158,625	161,974	179,794
Surprise	30,848	117,688	130,129
Goodyear	18,911	65,404	81,447
Avondale	35,883	76,468	81,621
Buckeye	6,537	51,019	69,947
El Mirage	7,609	31,911	34,174
Queen Creek	4,316	26,448	40,208
Apache Junction	31,814	35,828	40,030
Fountain Hills	20,235	22,444	23,862
Paradise Valley	13,664	12,810	13,913
Youngtown	3,010	6,154	6,575
Wickenburg	5,082	6,353	7,253
Tolleson	4,974	6,573	6,992
Cave Creek	3,955	5,005	5,676
Guadalupe	5,228	5,540	6,332
Litchfield Park	3,810	5,467	6,452
Carefree	2,790	3,358	3,669
Gila Bend	1,980	1,932	2,010

Office of Economic Opportunity

AGE DISTRIBUTION

0-14	20.9 %
15-24	13.8 %
25-44	27.5 %
45-64	24.0 %
65+	13.8 %

American Community Survey

DISTANCE TO MAJOR CITIES (FROM PHOENIX)

Tucson	111 miles
Los Angeles	372 miles
San Diego	355 miles
Las Vegas	287 miles

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,312,720	4.9 %
Maricopa County	2,134,987	4.2 %
Incorporated Cities & Towns		
Phoenix	811,570	4.3 %
Mesa	239,712	4.2 %
Glendale	121,277	4.5 %
Chandler	142,010	3.8 %
Scottsdale	139,861	3.5 %
Gilbert	131,473	3.5 %
Peoria	85,252	4.0 %
Tempe	109,401	3.9 %
Surprise	55,570	4.5 %
Goodyear	36,972	4.3 %
Avondale	42,780	4.4 %
Buckeye	26,288	5.2 %
El Mirage	16,275	4.6 %
Queen Creek	17,775	3.5 %
Apache Junction	14,711	6.2 %
Fountain Hills	12,597	3.8 %
Paradise Valley	6,514	1.5 %
Youngtown	2,885	10.7 %
Wickenburg	2,768	0.3 %
Tolleson	3,235	4.3 %
Cave Creek	2,591	5.4 %
Guadalupe	2,658	9.8 %
Litchfield Park	2,578	3.0 %
Carefree	1,193	1.8 %
Gila Bend	815	2.1 %

Office of Economic Opportunity

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	394.7	21.1 %
Professional, scientific, & administrative services	245.3	13.1 %
Retail trade	230.4	12.3 %
Arts, entertainment, food & recreation services	187.3	10.0 %
Finance, insurance & real estate	183.3	9.8 %
Manufacturing	142.9	7.6 %
Construction	126.8	6.8 %
Transportation, warehousing, & utilities	96.4	5.2 %
Other services, except public administration	92.1	4.9 %
Public administration	74.5	4.0 %
Wholesale trade	48.6	2.6 %
Information	36.6	2.0 %
Agriculture, forestry, fishing, hunting, & mining	12.2	0.6 %

American Community Survey

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County Profile for

Maricopa County, Arizona

ARIZONA COMMERCE AUTHORITY

PROPERTY TAX

	Schools	City/Fire	County	Total
Apache Junction (Maricopa County)	0.00	0.00	4.06	4.06
Avondale	9.96	1.70	4.06	15.71
Buckeye	9.23	1.80	4.06	15.09
Carefree	2.41	0.00	4.06	6.47
Cave Creek	2.41	2.17	4.06	8.64
Chandler	6.57	1.16	4.06	11.79
El Mirage	7.21	3.78	4.06	15.05
Fountain Hills	3.25	0.45	4.06	7.75
Gila Bend	2.98	0.38	4.06	7.42
Gilbert	6.99	1.06	4.06	12.11
Glendale	10.82	2.15	4.06	17.03
Goodyear	7.10	1.86	4.06	13.02
Guadalupe	8.23	0.00	4.06	12.29
Litchfield Park	7.37	0.00	4.06	11.43
Mesa	7.61	1.16	4.06	12.82
Paradise Valley	7.05	2.17	4.06	13.28
Peoria (Maricopa County)	8.13	1.44	4.06	13.63
Phoenix	12.29	2.17	4.06	18.52
Queen Creek (Maricopa County)	8.10	1.95	4.06	14.10
Scottsdale	3.91	1.13	4.06	9.10
Surprise	5.49	0.76	4.06	10.31
Tempe	8.23	2.53	4.06	14.82
Tolleson	8.45	3.97	4.06	16.48
Wickenburg (Maricopa County)	5.45	1.54	4.06	11.05
Youngtown	7.21	0.00	4.06	11.27

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Apache Junction (Maricopa County)	2.40%	0.70%	5.60%	8.70%
Avondale	2.50%	0.70%	5.60%	8.80%
Buckeye	3.00%	0.70%	5.60%	9.30%
Carefree	3.00%	0.70%	5.60%	9.30%
Cave Creek	3.00%	0.70%	5.60%	9.30%
Chandler	1.50%	0.70%	5.60%	7.80%
El Mirage	3.00%	0.70%	5.60%	9.30%
Fountain Hills	2.60%	0.70%	5.60%	8.90%
Gila Bend	3.50%	0.70%	5.60%	9.80%
Gilbert	1.50%	0.70%	5.60%	7.80%
Glendale	2.90%	0.70%	5.60%	9.20%
Goodyear	2.50%	0.70%	5.60%	8.80%
Guadalupe	4.00%	0.70%	5.60%	10.30%
Litchfield Park	2.80%	0.70%	5.60%	9.10%
Mesa	1.75%	0.70%	5.60%	8.05%
Paradise Valley	2.50%	0.70%	5.60%	8.80%
Peoria (Maricopa County)	1.80%	0.70%	5.60%	8.10%
Phoenix	2.30%	0.70%	5.60%	8.60%
Queen Creek (Maricopa County)	2.25%	0.70%	5.60%	8.55%
Scottsdale	1.65%	0.70%	5.60%	7.95%
Surprise	2.20%	0.70%	5.60%	8.50%
Tempe	1.80%	0.70%	5.60%	8.10%
Tolleson	2.50%	0.70%	5.60%	8.80%
Wickenburg (Maricopa County)	2.20%	0.70%	5.60%	8.50%
Youngtown	3.00%	0.70%	5.60%	9.30%

Arizona Dept. of Revenue & Arizona Tax Research Association

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County Profile for

Maricopa County, Arizona

ARIZONA COMMERCE AUTHORITY

CONTACT INFORMATION

Arizona Commerce Authority
Phone: 602-845-1200
Website: www.azcommerce.com

Pinal County Economic Development
Phone: 520-866-6664
Website: pinalcountyaz.gov

City of Avondale Economic Development
Phone: 623-333-1400
Website: http://www.avondale.org/

WESTMARC (Western Maricopa Coalition)
Phone: 623-435-0431
Website: www.westmarc.org

City of Chandler, Economic Development Office
Phone: 480-782-3035
Website: www.chandleraz.gov

Town of Fountain Hills
Phone: 480-816-5107
Website: www.fh.az.gov

Town of Gila Bend, Economic Development
Phone: 928-683-2255
Website: www.gilabendaz.org

City of Glendale Economic Development
Phone: 623-930-2984
Website: http://www.glendaleaz.com

Town of Guadalupe
Phone: 480-730-3080
Website: www.guadalupeaz.org

City of Mesa
Phone: 480-644-2211
Website: www.mesaaz.gov

Paradise Valley Chamber of Commerce
Website: http://www.paradisevalleychamber.com/

Greater Phoenix Chamber of Commerce
Phone: 602-495-2195
Website: www.phoenixchamber.com

City of Scottsdale
Phone: 480-312-3111
Website: www.scottsdaleaz.gov

City of Tempe
Phone: 480-858-2395
Website: www.tempe.gov

Local First Arizona
Phone: 602-956-0909
Website: www.localfirstaz.com

Apache Junction Chamber of Commerce
Phone: 480-982-3141
Website: www.ajchamber.com

Greater Phoenix Economic Council
Phone: 602-256-7700
Website: http://www.gpec.org

Town of Carefree
Phone: 480-488-3686
Website: http://www.carefree.org

Chandler Chamber of Commerce
Phone: 480-963-4571
Website: www.chandlerchamber.com

Fountain Hills Chamber of Commerce
Phone: 480-837-1654
Website: www.fountainhillschamber.com

Town of Gilbert
Phone: 480-503-6912
Website: www.gilbertaz.gov

City of Goodyear
Phone: 623-882-7900
Website: www.goodyearaz.gov

Town of Guadalupe, Economic Development
Phone: 480-730-3080
Website: www.guadalupeaz.org

City of Mesa, Office of Economic Development
Phone: 480-644-3962
Website: mesaaz.gov/business/economic-development

City of Peoria
Phone: 623-773-7642
Website: www.peoriaaz.gov

Town of Queen Creek
Phone: 480-358-3522
Website: www.queencreek.org

City of Scottsdale, Economic Vitality Department
Phone: 480-312-7989
Website: www.ScottsdaleAz.gov

Downtown Tempe Community, Inc.
Phone: 480-921-2300
Website: www.downtowntempe.com

Apache Junction Economic Development
Phone: 480-474-5071
Website: www.ajcity.net

City of Avondale
Phone: 623-333-1000
Website: www.avondale.org

City of Buckeye
Phone: 623-349-6971
Website: www.buckeyeaz.org

Town of Cave Creek
Phone: 480-204-0140
Website: http://www.cavecreek.org

City of El Mirage
Phone: 623-972-8116
Website: www.cityofelmirage.org

Town of Gila Bend
Phone: 928-683-2255
Website: www.gilabendaz.org

City of Glendale
Phone: 623-930-2000
Website: www.glendaleaz.com

City of Goodyear, Economic Development Department
Phone: 623-932-3025
Website: http://develop.goodyearaz.com

City of Litchfield Park
Phone: 623-640-3778
Website: www.litchfield-park.org

Town of Paradise Valley
Phone: 480-348-3690
Website: www.ci.paradise-valley.az.us

City of Phoenix
Phone: 602-534-9049
Website: www.phoenix.gov

Queen Creek Chamber of Commerce
Phone: 480-888-1709
Website: www.queencreekchamber.org

City of Surprise
Phone: 623-222-3301
Website: www.surpriseaz.gov

City of Tolleson
Phone: 623-474-4998
Website: www.tollesonaz.org

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Town of Wickenburg
Phone: 928-668-4547 ext. 9
Website: www.ci.wickenburg.az.us

Town of Youngtown
Phone: 623-933-8286
Website: www.youngtownaz.org

Wickenburg Chamber of Commerce
Phone: 928-684-5479
Website: www.wickenburgchamber.com

Wickenburg Regional Economic Development Partnership
Phone: 928-684-7700
Website: http://www.wredp.com/

County Profile for

Pinal County

County Seat: Florence

ARIZONA COMMERCE AUTHORITY

Pinal County was formed from portions of Maricopa and Pima counties on Feb. 1, 1875, in response to the petition of residents of the upper Gila River Valley, as "Act #1" of the Eighth Territorial Legislature. Florence, established in 1866, was designated and has remained the county seat. The county encompasses 5,374 square miles, of which 4.5 are water.

In both economy and geography, Pinal County has two distinct regions. The eastern portion is characterized by mountains with elevations to 6,000 feet and copper mining. The western area is primarily low desert valleys and irrigated agriculture.

The communities of Mammoth, Oracle, San Manuel, and Kearny have traditionally been active in copper mining, smelting, milling and refining. Arizona City, Eloy, Maricopa, Picacho, Red Rock and Stanfield have agriculture based-economies. Apache Junction, Arizona City, Coolidge, Eloy, and particularly Casa Grande have diversified their economic base to include manufacturing, trade and services. This expansion and diversification has been facilitated by their location in the major growth corridor between Phoenix and Tucson near the junction of I-10 and I-8, except for Apache Junction, which is to the east of burgeoning Mesa.

The county is home to many attractions, including the Old West Highway 60, Casa Grande Ruins National Monument, Picacho Peak State Park, Picacho Reservoir, Boyce Thompson Southwestern Arboretum, Oracle State Park and the University of Arizona's Biosphere II, McFarland State Park, Lost Dutchman State Park, Skydive Arizona, the world's largest skydiving drop-zone, and the Florence Historical District, with 120 buildings on the National Register.

The state of Arizona is the county's largest landholder with 35 percent, followed by individuals and corporations, 22 percent; Indian reservations, 23 percent; the U.S. Forest Service and Bureau of Land Management, 14 percent, and the remaining 6 percent is other public land.

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County Profile for

Pinal County, Arizona

ARIZONA COMMERCE AUTHORITY

POPULATION

	2000	2010	2017
Arizona	5,130,632	6,401,569	6,965,897
Pinal County	179,727	376,369	427,603
Incorporated Cities & Towns			
Casa Grande	25,224	48,664	54,866
Apache Junction	31,814	35,828	40,030
Marana	13,556	35,051	45,378
Maricopa	0	43,598	49,550
Queen Creek	4,316	26,448	40,208
Florence	17,054	25,537	25,866
Eloy	10,375	16,657	18,993
Coolidge	7,786	11,855	12,485
Superior	3,254	2,835	3,008
Kearny	2,249	1,947	2,077
Mammoth	1,762	1,425	1,519
Winkelman	443	352	353

Office of Economic Opportunity

AGE DISTRIBUTION

0-14	20.4 %
15-24	11.8 %
25-44	26.6 %
45-64	23.0 %
65+	18.2 %

American Community Survey

DISTANCE TO MAJOR CITIES (FROM FLORENCE)

Phoenix	61 miles
Tucson	70 miles
Los Angeles	435 miles
San Diego	380 miles
Las Vegas	356 miles

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,312,720	4.9 %
Pinal County	168,806	5.0 %
Incorporated Cities & Towns		
Casa Grande	24,013	5.3 %
Apache Junction	14,711	6.2 %
Marana	22,163	3.6 %
Maricopa	23,833	4.8 %
Queen Creek	17,775	3.5 %
Florence	3,390	5.3 %
Eloy	3,773	6.4 %
Coolidge	4,937	7.1 %
Superior	1,306	5.0 %
Kearny	992	3.0 %
Mammoth	551	8.7 %
Winkelman	142	4.9 %

Office of Economic Opportunity

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	30.0	21.3 %
Retail trade	16.6	11.7 %
Arts, entertainment, food & recreation services	15.0	10.7 %
Professional, scientific, & administrative services	13.9	9.9 %
Manufacturing	13.2	9.4 %
Public administration	12.2	8.6 %
Finance, insurance & real estate	8.9	6.3 %
Construction	8.6	6.1 %
Transportation, warehousing, & utilities	7.1	5.0 %
Other services, except public administration	5.8	4.1 %
Agriculture, forestry, fishing, hunting, & mining	4.8	3.4 %
Wholesale trade	2.5	1.8 %
Information	2.4	1.7 %

American Community Survey

PROPERTY TAX

	Schools	City/Fire	County	Total
Apache Junction (Pinal County)	5.44	3.47	7.47	16.38
Casa Grande	6.80	1.63	7.47	15.90
Coolidge	5.37	1.93	7.47	14.77
Eloy	9.39	1.23	7.47	18.09
Florence	5.72	1.12	7.47	14.31
Kearny	5.30	2.25	7.47	15.01
Mammoth	5.86	2.36	7.47	15.69
Marana (Pinal County)	0.00	0.00	7.47	7.47
Maricopa	5.95	4.91	7.47	18.33
Queen Creek (Pinal County)	0.00	0.00	7.47	7.47
Superior	7.37	7.34	7.47	22.18
Winkelman (Pinal County)	0.00	0.00	7.47	7.47

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Apache Junction (Pinal County)	2.40%	1.60%	5.60%	9.60%
Casa Grande	2.00%	1.60%	5.60%	9.20%
Coolidge	3.00%	1.60%	5.60%	10.20%
Eloy	3.00%	1.60%	5.60%	10.20%
Florence	2.00%	1.60%	5.60%	9.20%
Kearny	3.00%	1.60%	5.60%	10.20%
Mammoth	4.00%	1.60%	5.60%	11.20%
Marana (Pinal County)	2.50%	1.60%	5.60%	9.70%
Maricopa	2.00%	1.60%	5.60%	9.20%
Queen Creek (Pinal County)	2.25%	1.60%	5.60%	9.45%
Superior	4.00%	1.60%	5.60%	11.20%
Winkelman (Pinal County)	3.50%	1.60%	5.60%	10.70%

Arizona Dept. of Revenue & Arizona Tax Research Association

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County Profile for

Pinal County, Arizona

ARIZONA COMMERCE AUTHORITY

CONTACT INFORMATION

Arizona Commerce Authority
Phone: 602-845-1200
Website: www.azcommerce.com

Pinal County Economic Development
Phone: 520-866-6664
Website: pinalcountyaz.gov

Greater Casa Grande Chamber of Commerce
Phone: 520-836-2125
Website: casagrandechamber.org

Coolidge Chamber of Commerce
Phone: 520-723-3009
Website: www.coolidgechamber.org

Town of Florence
Phone: 520-868-7549
Website: www.florenceaz.gov

Town of Mammoth
Phone: 520-487-2331
Website: http://townofmammoth.us/

Marana Chamber of Commerce
Phone: 520-682-4314
Website: www.maranachamber.com

Town of Queen Creek
Phone: 480-358-3522
Website: www.queencreek.org

Town of Superior
Phone: 520-689-5753
Website: www.superior-arizona.com

Gila County Community Development
Phone: 928-402-4224
Website: www.gilacountyaz.gov

Local First Arizona
Phone: 602-956-0909
Website: www.localfirstaz.com

Apache Junction Chamber of Commerce
Phone: 480-982-3141
Website: www.ajchamber.com

Access Arizona
Phone: 520-836-6868
Website: accessarizona.org

City of Eloy
Phone: 520-466-9201
Website: www.ci.eloy.az.us

Town of Kearny
Phone: 520-363-5547
Website: www.townofkearny.com

Town of Marana
Phone: 520-382-1938
Website: www.marana.com

City of Maricopa
Phone: 520-316-6852
Website: www.maricopa-az.gov

Queen Creek Chamber of Commerce
Phone: 480-888-1709
Website: www.queencreekchamber.org

Superior Chamber of Commerce
Phone: 602-625-3151
Website: www.superiorarizonachamber.org

Apache Junction Economic Development
Phone: 480-474-5071
Website: www.ajcity.net

City of Casa Grande
Phone: 520-421-8636
Website: casagrandeaz.gov

City of Coolidge
Phone: 520-723-6075
Website: www.coolidgeaz.com

Eloy Chamber of Commerce
Phone: 520-466-3411
Website: www.EloyChamber.com

Copper Basin Chamber of Commerce
Phone: 520-363-7607
Website: www.copperbasinaz.com

Pima County Economic Development
Phone: 520-724-8126
Website: www.webcms.pima.gov

Maricopa Chamber of Commerce
Phone: 520-568-9573

Greater Phoenix Economic Council
Phone: 602-256-7700
Website: http://www.gpec.org

Town of Winkelman
Phone: 520-356-7854
Website: http://winkelmanaz.com/

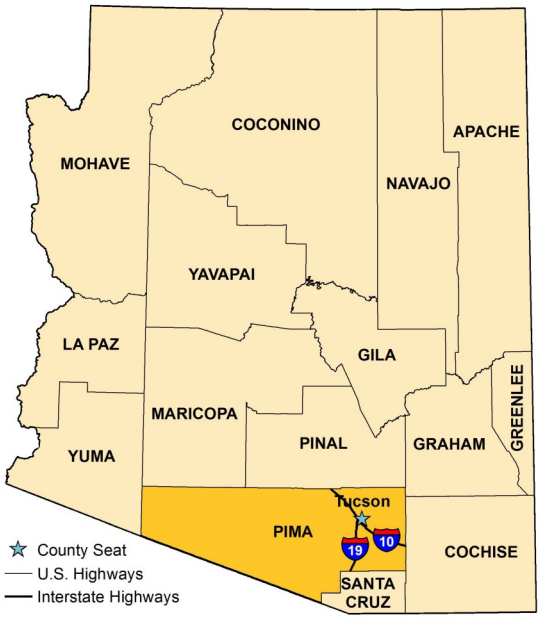
County Profile for

Pima County

County Seat: Tucson

ARIZONA COMMERCE AUTHORITY

Pima County, the second-largest of the four original counties, was created in 1864 and included approximately all of southern Arizona acquired from Mexico by the Gadsen Purchase. Settlement of the region goes back to the arrival in the 1690s of the Spanish who encountered Native Americans already living there. About the middle of the 18th century, silver and gold were discovered and prospectors from Mexico entered the area in droves. The latter part of the century saw expansion of mining and ranching in Pima County and an increase in population, despite the threat of attack from Apaches.



The Royal Presidio de San Augustín del Tucson was completed by 1781, and it remained the northern-most outpost of Mexico until the Gadsden Purchase transferred the land to the United States in 1854. Soldiers later arrived in 1856 and the population began to rise. From a population of 395 in 1820, Tucson has grown to be the second largest city in Arizona. It has always served as the Pima County seat and was the Arizona Territorial capital from 1867 to 1877. Tucson is home to the University of Arizona and offers many historical and cultural attractions.

Just south of Tucson is the Mission San Xavier del Bac, founded in 1697 by Father Kino and still in use today. Within Pima County are two cactus forests – Saguaro National Park to the northeast and Organ Pipe Cactus National Monument in the southwestern portion.

Although greatly reduced from its original size, Pima County still covers 9,184 square miles. It ranges in elevation from 1,200 feet to the 9,185-foot peak of Mount Lemmon. The San Xavier, Pascua Yaqui and Tohono O'odham reservations together account for ownership of 42 percent of land located in Pima County. The state of Arizona owns 15 percent; the U.S. Forest Service and Bureau of Land Management, 12 percent; other public lands, 17 percent; and individual or corporate ownership, 14 percent.

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County Profile for

Pima County, Arizona

ARIZONA COMMERCE AUTHORITY

POPULATION

	2000	2010	2017
Arizona	5,130,632	6,401,569	6,965,897
Pima County	843,746	981,168	1,026,099
Incorporated Cities & Towns			
Tucson	486,699	520,795	537,634
Marana	13,556	35,051	45,378
Oro Valley	29,700	40,984	44,517
Sahuarita	3,242	25,347	29,049
South Tucson	5,490	5,672	5,664

Office of Economic Opportunity

AGE DISTRIBUTION

0-14	18.1 %
15-24	15.8 %
25-44	23.7 %
45-64	24.6 %
65+	17.8 %

American Community Survey

DISTANCE TO MAJOR CITIES (FROM TUCSON)

Phoenix	111 miles
Los Angeles	488 miles
San Diego	410 miles
Las Vegas	409 miles

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,312,720	4.9 %
Pima County	475,622	4.5 %
Incorporated Cities & Towns		
Tucson	254,150	4.7 %
Marana	22,163	3.6 %
Oro Valley	19,182	4.3 %
Sahuarita	12,242	3.9 %
South Tucson	2,225	10.9 %

Office of Economic Opportunity

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	108.1	25.2 %
Professional, scientific, & administrative services	52.7	12.3 %
Retail trade	49.9	11.7 %
Arts, entertainment, food & recreation services	49.6	11.6 %
Manufacturing	28.7	6.7 %
Public administration	27.7	6.5 %
Construction	26.9	6.3 %
Finance, insurance & real estate	24.6	5.7 %
Other services, except public administration	22.8	5.3 %
Transportation, warehousing, & utilities	17.6	4.1 %
Wholesale trade	7.5	1.8 %
Information	6.8	1.6 %
Agriculture, forestry, fishing, hunting, & mining	5.2	1.2 %

American Community Survey

PROPERTY TAX

	Schools	City/Fire	County	Total
Marana (Pima County)	6.44	0.00	7.90	14.34
Oro Valley	5.54	0.00	7.90	13.44
Sahuarita	7.42	2.10	7.90	17.42
South Tucson	7.18	0.25	7.90	15.33
Tucson	7.18	1.60	7.90	16.67

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Marana (Pima County)	2.50%	0.50%	5.60%	8.60%
Oro Valley	2.50%	0.50%	5.60%	8.60%
Sahuarita	2.00%	0.50%	5.60%	8.10%
South Tucson	4.50%	0.50%	5.60%	10.60%
Tucson	2.60%	0.50%	5.60%	8.70%

Arizona Dept. of Revenue & Arizona Tax Research Association

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County Profile for

Pima County, Arizona

ARIZONA COMMERCE AUTHORITY

CONTACT INFORMATION

Arizona Commerce Authority
Phone: 602-845-1200
Website: www.azcommerce.com

Local First Arizona
Phone: 602-956-0909
Website: www.localfirstaz.com

Town of Marana
Phone: 520-382-1938
Website: www.marana.com

Pima County Economic Development
Phone: 520-724-8126
Website: www.webcms.pima.gov

Marana Chamber of Commerce
Phone: 520-682-4314
Website: www.maranachamber.com

Town of Oro Valley
Phone: 520-229-4714
Website: www.orovalleyaz.gov

Town of Sahuarita
Phone: 520-822-8818
Website: www.ci.sahuarita.az.us

City of South Tucson
Phone: 520-792-2424
Website: www.southtucson.org

City of Tucson
Phone: 520-791-4204
Website: http://cms3.tucsonaz.gov

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Now
Leaving
Arizona

Glossary

9(d) Debt
A debt owed to the federal government related to agriculture irrigation systems

A2x
Access to Excess policy

ACC
Arizona Corporation Commission

Accrual Basis of Accounting
Revenue is recorded when earned and expenses recognized in the period incurred, without regard to the time of receipt or payment of cash (e.g., accrue if work is done but invoice not received)

Acre-Foot (A/F)
A unit of water volume which covers an area of one acre to a depth of one foot and equals 43,560 cubic feet, 1,233 cubic meters or 325,851 gallons

Active Management Area (AMA)
An Arizona geographical region subject to regulation under the Groundwater Management Act

Ad Valorem Tax
A levy upon the assessed valuation of property within the District's service area (Maricopa, Pima and Pinal counties)

ADA
Americans with Disabilities Act

ADEQ
Arizona Department of Environmental Quality

ADWR
Arizona Department of Water Resources

A/F
Acre-feet

AFRP
Aqua Fria Recharge Project

Ag Consideration
The Fixed OM&R portion of the CAWCD water delivery rate that must be paid for by CAWCD for Ag Settlement Pool participants as part of the AWSA

Ag Settlement
Set amount of excess water for Agricultural use through 2030 as part of the AWSA

AMA
Active Management Area

Amortization
The repayment of loan principal by installment payments.

AMWUA
Arizona Municipal Water Users Association

APA
Arizona Power Authority

Aqueduct
A pipe or channel for transporting water from a remote source, usually by gravity

Aquifer
A body of rock or sediments that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs

Arizona Department of Environmental Quality (ADEQ)
A department of state government responsible for groundwater quality protection, water quality standards, and wastewater reclamation and reuse permits

Arizona Department of Water Resources (ADWR)
A department of state government responsible for water management and administration of water-related programs within the State

Arizona Water Banking Authority (AWBA)
A specially created state agency that stores unused Arizona apportionment of Colorado River water in recharge sites around the state to help meet future needs

ARS
Arizona Revised Statute

ASRS
Arizona State Retirement System

Assessed Valuation
The dollar value assigned to a property for purposes of measuring applicable taxes

AWBA
Arizona Water Banking Authority

AWSA
Arizona Water Settlements Act

Balanced Budget
A budget in which estimated revenues equal estimated expenditures

BDF
Basin Development Fund

BIA
Bureau of Indian Affairs

"Big R"
A CAWCD rate component for major repairs and replacements of capital equipment.

Bureau of Reclamation (BOR, USBR, Bureau or Reclamation)
A branch of the Department of the Interior responsible for the construction of the CAP

CAGRD
Central Arizona Groundwater Replenishment District

CAP
Central Arizona Project

Capital Budget
Fixed assets and capital projects to be acquired or constructed during the budget period

Capital Charges
A charge assessed to M&I subcontractors to assist with the District's annual repayment obligation to the federal government for the reimbursable construction costs of the CAP

Capital Expenditure
Expenditures that result in the acquisition of, or addition to, fixed assets including land, buildings, improvements, machinery and equipment

Capital Project
Projects meeting a minimum threshold that: (a) increase the useful life of the asset by three years or more; (b) constitute replacement of the majority of the asset; or (c) enhance or upgrade the asset

Captive Insurance Company (Captive)
A closely held insurance company whose insurance business is primarily supplied by and controlled by its owner(s)

CAWCD
Central Arizona Water Conservation District

Central Arizona Groundwater Replenishment District (CAGRD)
Created by the State Legislature as part of CAWCD in 1993 to replenish groundwater in Pima, Pinal and Maricopa counties in order to provide a mechanism for water providers and landowners to demonstrate an Assured Water Supply

Central Arizona Project (CAP)
A 336-mile long water conveyance system built to carry water from the Colorado River to central and southern Arizona; also the term "CAP" is also used to refer to the CAWCD

Central Arizona Water Conservation District (CAWCD or District)
The multi-county water conservation district established as a special taxing district for the purpose of contracting with the United States for the delivery of CAP water and the repayment of the reimbursable share of construction costs

CIP
Capital Improvement Program

Conjunctive Use
The planned and coordinated use of surface water and groundwater supplies to improve water supply reliability

Control Center
Manned 24 hours per day, the Control Center controls the entire CAP system using the SCADA computer system

DCP
Drought Contingency Plan

Debt Service
Principal and interest payments on outstanding bonds

Decommission
Planned shut-down or removal of a building, equipment, plant, etc., from operation or usage

Depreciate
To allocate the cost of an asset over its service, or useful life

Desalination
Specific treatment process to demineralize sea water or brackish (saline) water for use

Displacement (Energy)
The process whereby energy available is sold at a location with a higher market price and replacement energy is purchased at a location with a lower market price

Effluent
Water that has been collected in a sanitation sewer for subsequent treatment in a facility that is regulated as a sewage system, disposal plant or wastewater treatment facility

EIS
Environmental Impact Statement

Elimination
An accounting method used to simplify the consolidated financial statement of affiliated companies though removing any sales and expenses between affiliated entities

Enterprise Fund
A fund established to account for operations financed and operated in a manner similar to private business enterprises, wherein the stated intent is that the costs of providing goods and services be financed from revenues recovered primarily through user fees

Environmental Protection Agency (EPA)
A federal agency formed by Congress in 1970 in response to growing public demand for cleaner water, air and soil

EPA
Environmental Protection Agency

EROC
Energy Risk Oversight Committee

Excess Water
All Project Water that in excess of the amounts used, resold, or exchanged pursuant to long-term contracts and subcontracts for Project Water service

Expenditure
The outflow of funds paid or to be paid for an asset obtained or goods and services obtained regardless of when the expense is actually paid

Extraordinary Maintenance Project
Repair or maintenance to an existing facility that has a cost of $2 million or more and maintains the original condition or level of utility

Facility Use Charges
A charge assessed to non-subcontractors to assist with the District's annual repayment obligation to the federal government for the reimbursable construction costs of the CAP

FERC
Federal Energy Regulatory Commission

Federal Water
Water used for federal purposes (e.g., Tribal, construction water, etc.)

Firming
The act of securing Colorado River water supplies by recharging and storing available excess supply in order to meet anticipated future declared shortages on the Colorado River

Fixed Assets
Assets that are used in a productive capacity, have physical substance, are relatively long-lived, and provide future benefit, which is readily measurable, such as land, buildings, machinery, furniture, vehicles, other equipment and capital projects

Full-Time Equivalent (FTE)
The conversion of a position to a decimal based on the number of hours worked per year - For example, a full-time position is based on 2,080 hours per year and would be equivalent to 1.0 FTE. A part-time position working 20 hours per week would be equivalent to 0.5 of a full-time position.

Fund
A fiscal and accounting entity created by a government for the purpose of tracking the finances of a particular activity, group of activities or revenue source

GAAP
Generally Accepted Accounting Principles

GASB
Governmental Accounting Standards Board

General Obligation Debt
Bonds that are secured by the full faith and credit of the issuer and secured by a pledge of the issuer's ad valorem taxing power

GIS
Geographic Information System

Groundwater
Water that has seeped beneath the earth's surface is stored in aquifers and is drawn to the surface through pumping.

Groundwater Savings Facility (GSF)
Water exchange program where surface water is delivered to a water user traditionally reliant upon groundwater; through replacing the use of groundwater, the groundwater is saved and thereby counted as recharge

GSF
Groundwater Savings Facility

GSP
Gross State Product

GWh
Gigawatt hour

HMRP
Hieroglyphic Mountains Recharge Project

Hoover Capacity Charge
A charge assessed to assist in the repayment of upgrading the Hoover power plant to increase generating capacity at the plant

Hoover 4.5 Mil Surcharge
A surcharge established by the 1984 Hoover Power Plant Act on energy from Hoover power plant that is sold in Arizona, of which the revenues generated from this surcharge are credited to the Lower Colorado River Basin Development Fund and used to offset the District's annual federal repayment obligation

HVAC
Heating, Ventilation and Air Conditioning

I & WR
Infrastructure & Water Rights

ICS
Intentionally Created Surplus

ICMA
Intentionally Created Mexican Apportionment (ICS credits for benefit of Mexico)

ICUA
Intentionally Created Unused Apportionment

IGA
Inter-Governmental Agreement

Infrastructure
Long-lasting capital assets that are stationary, can be preserved for significantly greater periods than most capital assets, and typically are part of a large system of capital assets; examples include bridges, tunnels, roads, water mains and sewers

KRA
Key Result Area

Line Item
A specific detailed item of revenue or expense

Lower Colorado River Basin Development Fund (LCRBDF or BDF)
A special fund established within the United States Treasury to account for all revenues and expenses associated with CAP

Limited Property Value (LPV)
A value calculated according to a statutory formula, designed to reduce the effect of inflation on property taxes

LRFP
LongRange Financial Plan

LSCRP
Lower Santa Cruz Recharge Project

M&I
Municipal and Industrial

Master Repayment Contract
A contract entered into between the Bureau and the CAWCD for the delivery of water and repayment of costs of the CAP

MATS
Mercury Air Toxic Standard

Member Land (ML)
An individual subdivision that has met the qualifications for membership in the CAGRD

Member Service Area (MSA)
The service area of a municipal water provider that has met the qualifications for membership in the CAGRD

MOU
Memorandum of Understanding

MSCP
Multi-Species Conservation Program

MWh
Megawatt hour

Net Assessed Value (NAV)
The dollar value assigned to a property to measure applicable taxes that takes comparable home sales and inspections into consideration

NEPA
National Environmental Protection Act

Net Position
The difference between assets and liabilities

NGS
Navajo Generating Station

NIA
Non-Indian Agriculture priority water entitlements relinquished by the irrigation districts, a significant portion of which was reserved by the United States for Indian settlement purposes with up to 96,295 acre-feet to be reallocated for non-Indian M&I purposes

Non-subcontract
A short-term contract between CAWCD and a water customer for the delivery of CAP water

O&M
Operations and Maintenance

OM&R
Operations, Maintenance and Replacement

OM&R Reconciliation
An analysis performed to determine the actual cost to deliver CAP water on a per acre-foot basis (reconciled rate) compared to the water rate set by the Board in advance of delivery

Operating Budget
That portion of the budget that pertains to daily operations that provides basic services (e.g., salaries, materials, travel, services, etc.)

Operating Project
A routine project that maintains or restores the original condition or level of utility and is expensed as it is completed

Operation, Maintenance, and Replacement (OM&R)
Costs incurred for the operation, maintenance, and replacement of the CAP system

OSHA
Occupational Safety and Health Administration

Other Excess
CAP Excess water after the Ag Settlement Pool has been satisfied

Permanent Service Right (PSR)
Represents the District's right to operate and maintain the CAP, though title to the Project remains with the federal government

PM
Preventative Maintenance

PMRRP
Pima Mine Road Recharge Project

Potable water
Water having no impurities present in amounts sufficient to cause disease or harmful physiologic effects; also conforms in its bacteriological and chemical quality to the requirements of the U.S. Environmental Protection Agency's Safe Drinking Water Act or meets the regulations of other agencies having jurisdiction

PSC
Project Steering Committee, which is comprised of a cross-functional management team that has been established to evaluate, prioritize and oversee large projects

Rate
A charge or payment calculated in relation to a particular sum or quantity (e.g., water rates)

Recharge
The process of replenishing underground aquifers with water by putting water in basins so it can percolate through the soil

Renewable Groundwater
The amount of groundwater naturally replenished that could be annually withdrawn without causing significant water-level declines

Repayment Stipulation (or Stipulation)
The 2003 agreement between the United States and CAWCD, approved by the U.S. District Court, that resolved litigation regarding CAWCD's repayment obligation for the CAP and other matters

Replenishment
Replacement of groundwater supplies that have been pumped

Reserve
An account established with the Arizona State Treasurer to invest funds, which can be categorized as designated, assigned, restricted or unrestricted

Reservoir
A body of water collected and stored for future use in a natural or artificial lake

Revenue Bond
A type of bond that is backed solely by the revenues from a specific source

Riparian Right
A water right based on the ownership of land adjacent to a river or waterway

Shaping (Energy)
The process of shifting pumping activity times to allow for the sale of energy when prices are higher and the purchase of replacement energy when prices are lower

Shortage
A situation that would occur if, or when, Lake Mead falls below specified elevations and results in reduced deliveries

SMRP
Superstition Mountains Recharge Project

Standard Operating Procedures (SOP)
A comprehensive single-source document covering all aspects of operation and maintenance and emergency procedures

SRP
Salt River Project

Storage Capacity
The maximum volume of water that can be impounded by a reservoir when there is no discharge of water

Storage Facility
Refers to either a groundwater savings facility or an underground storage facility

Stored water
Water that is stored underground for subsequent recovery pursuant to an underground water storage, savings, and replenishment permit

State Demonstration Project
A project for the storage of Excess CAP water at an underground storage facility

Structural Deficit
Commitments to the Lower Basin states and Mexico for more water from the Colorado River each year than the River can reliably produce, depleting levels in Lake Powell and Lake Mead, and increasing the likelihood of a declared shortage

Subcontract
Long-term contract among the CAWCD, Bureau and a water customer for the delivery of CAP water

Subsidence
Sinking elevation of the ground surface; the process may occur over an aquifer that is over drafted

Supervisory Control and Data Acquisition (SCADA)
Computer system used by Water Operations to operate the CAP

Surcharge
An additional levy added to a charge

Surplus Water
Colorado River water declared as surplus by the Secretary of the Interior

Surface Water
Water located on the earth's surface, in rivers, streams, lakes, and reservoirs

TDRP
Tonopah Desert Recharge Project

Turnout
A structure used to divert water from the CAP system to a smaller channel

Underground Storage Facility (USF)
There are two types of underground storage facilities: constructed and managed. A constructed facility requires the construction of infiltration structures (basins, furrows, ditches, etc.), while a managed facility uses preexisting natural channels for recharge

USBR
U.S. Bureau of Reclamation

USGS
United States Geological Survey

VPP
Voluntary Protection Program is a workplace Occupational Safety and Health Administration (OSHA) designation

WAPA
Western Area Power Administration

Water O&M Charges
Revenues collected from customers that offset the specifically identified expenses associated with the delivery of water

Water Rights
A property right to designate specific beneficial use of a particular amount of water with a specified priority date

Water Storage Tax
Tax levied under ARS § 48-3715 which authorizes CAP to levy a Water Storage tax , currently up to $0.04 cents per $100 of net assessed valuation

Water Table
The top of the water surface in the saturated area of an unconfined aquifer

Watershed
The region or land area drained by a river; also called a drainage basin

Wheeled Water or Wheeling
Water transferred between two agencies whereby one agency uses its system infrastructure to convey water owned by another agency

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