

CENTRAL ARIZONA PROJECT

2018 | 2019 BIENNIAL

Budget

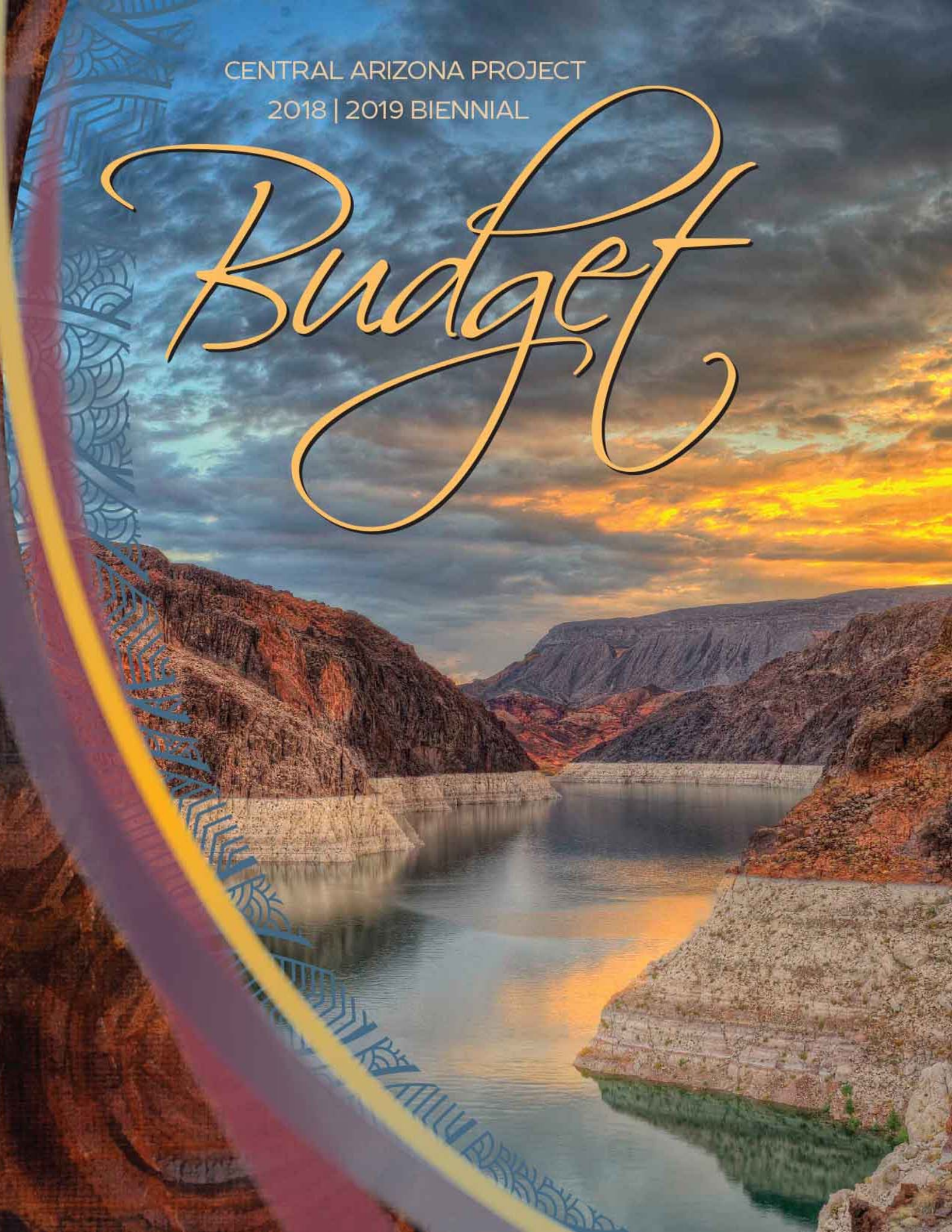


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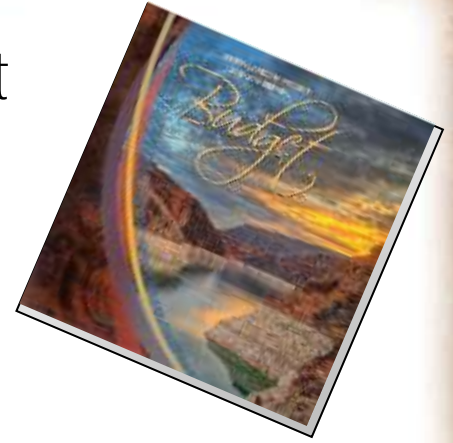
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How to Use the Biennial Budget

The Central Arizona Water Conservation District (CAWCD or District), also known as the Central Arizona Project (CAP), presents the 2018 / 2019 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 CAP Profile.

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

Strategic Plan provides the District's strategic framework and plan, as well as performance measures.

Financial Planning reviews the overall process, planning and controls of the budget and other planning processes. Also explains the District's debt authorities, obligations and fund reserves in more detail.

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

Capital Budget provides an overview of the capital project process and controls, a high-level summary and Capital Improvement Program detail.

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

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





TO OUR BOARD, CUSTOMERS AND CONSTITUENTS



The 2018 / 2019 Biennial Budget is the seventh budget we have prepared since the Central Arizona Water Conservation District (CAWCD or District) Board of Directors adopted a two-year financial planning cycle in 2005. 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 and vice-versa. 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 updated the CAP Strategic Plan in 2016, just after the completion of the 2016 / 2017 Biennial Budget. As with previous CAP budgets, the CAP Strategic Plan is the basis for the 2018 / 2019 Biennial Budget. The Plan identifies the strategic issues, objectives and associated action plans that will carry us into the future. These action plans are organized under six Key Result Areas (KRAs):

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

While all of the KRAs are critical for CAP, **Water Supply** has moved to the forefront. Since 100% of CAP's water supply comes from the Colorado River, a significant emphasis is placed on working closely with our water users, along with other parties in Arizona, the seven Colorado River Basin States, the U.S. Bureau of Reclamation (Bureau, Reclamation or BOR) and the Republic of Mexico, to better manage the Colorado River, to address the risks posed by climate change, to control salinity, to further efforts to augment river supplies and to prepare for an eventual shortage on the Colorado River. Currently, the Colorado River Basin is in its 18th year of drought. Even without a drought, the Lower Basin (Arizona, California and Nevada) must deal with the "Structural Deficit," a term that describes the situation that these states and Mexico are entitled to take about 1.2 million acre-feet more water from the river each year than it can reliably produce, depleting levels in the major Colorado River reservoirs, Lake Powell and Lake Mead. When we were preparing our last Biennial Budget in 2015, the Bureau was projecting that a first-ever shortage declaration was likely in 2016. However, there was no shortage in 2016 or 2017, and the recent August 2017 24-month study by Reclamation determined that there would be no declared shortage in 2018 as well. This incredible outcome is the result of a combination of slightly better than average

hydrology, even in the midst of a drought, and, most importantly, very careful management of conservation efforts to support Lake Mead by CAP and its partners in Arizona and elsewhere in the Basin. The hydrology has temporarily put Lake Powell in a higher release tier relative to Lake Mead, which means up to 770,000 acre-feet more water can be released annually into Lake Mead. When combined with the managed conservation in Lake Mead of about 300,000-



400,000 acre-feet per year, the Structural Deficit can be offset and Lake Mead can remain in equilibrium at an elevation above that which will trigger a shortage declaration. This situation may last for two or three more years if it is diligently watched and managed. This extra time is needed, since efforts to implement a Drought Contingency Plan (DCP) for the Lower Basin has become bogged down by politics within Arizona. In the meantime, CAP has taken the initiative, with the help of key partners, to conserve what would be required under DCP and to coordinate with others to carefully target the precise conservation amounts needed in Lake Mead to avoid unintended consequences. Protecting Lake Mead is a delicate task, and we need to be cautious not to inadvertently upset the balance between Lake Mead and Lake Powell, push the reservoir system into a lower release tier and wipe out the painstaking work that has occurred so far, or, worse yet, drive the Lower Basin into a shortage. If a shortage is declared, CAP would initially see reduced diversions of 320,000 acre-feet, which is approximately 20% of its current supply. Deliveries to CAP Indian and municipal and industrial contractors would not be impacted by such a shortage, but there would be less water available for CAP's non-Indian agricultural (NIA) pool, the Central Arizona Groundwater Replenishment District (CAGRD), the Arizona Water Banking Authority (AWBA) and other excess water users. Shortage could also drive CAP's fixed-cost rates up as deliveries are reduced. If shortage persists, deeper reductions to CAP's diversions could occur. If and when the drought ends and normal hydrology returns there will still be the Structural Deficit to address on a long-term basis.

Power has also consumed much of our attention over the last several years and will continue to do so. For many years, the Navajo Generating Station (NGS) has been an extremely reliable and cost-effective source of electricity, supplying more than 90% of the energy needed to run the CAP

system. In the earlier part of this decade, CAP worked closely with a diverse group of NGS stakeholders (The Working Group "TWG") and the U.S. Environmental Protection Agency (EPA) to successfully finalize the EPA's regional haze (NOx) rulemaking for NGS - often referred to as a "Best Available Retrofit Technology" (BART) rule. These rules and anticipated renegotiations of the land lease and coal supply agreements (which expire in 2019) were expected to provide more certainty that NGS would be able to continue as a source of reliable, low-cost energy through its design lifetime (2044). However, low natural gas prices due to fracking and other production technologies and the proliferation of renewable generation have introduced significant and lasting changes in the electricity market. As a result, due to economics, the owners of NGS decided early in 2017 that they would not continue to operate NGS beyond 2019, when the current contracts expire. CAP plans to issue an RFP for replacement power resources in late 2017, in order to develop a post-NGS portfolio for

deliveries beginning in 2020. The Board has set an expectation for a cost-effective and diversified portfolio that can include both traditional and renewable resources. CAP is also taking steps to enhance the reliability of its transmission network and to improve its access to the electricity market to better manage its power resources, including two transmission lines currently being constructed and a third project under development.

In an earlier CAP Strategic Plan, a major water supply initiative was established under the **Replenishment** KRA for CAGRD to identify, evaluate and acquire the supplies necessary to continue to provide sustainable replenishment services into the future. The goal was to acquire sufficient supplies to meet the current replenishment obligation by 2015 and then to acquire



additional supplies necessary to keep up as the replenishment obligation grows over time. This initiative was dubbed “catch up and keep up.” CAGRD has successfully acquired a sufficient quantity of annualized long-term supplies to meet the current replenishment obligation for many years to come, and the “catch up” portion of the initiative has been

completed. The primary focus of the current CAGRD 10-year Plan of Operation, which took effect in 2016, is to identify and acquire additional supplies to support the projected growth in the Plan.

In 2018, we will celebrate the 50th anniversary of the Colorado River Basin Project Act, the federal legislation passed in 1968 that authorized the construction of the Central Arizona Project. 2018 will also mark 25 years since CAWCD began repaying the federal government for **Arizona’s share of the reimbursable costs of CAP**. Just two years ago, we recognized the 30th anniversary of the first CAP water deliveries. We are justifiably proud of the enormous economic benefit to the state of Arizona and the excellent and reliable service CAP has provided over the years, and we recognize that our ability to continue to do so depends on the readiness of our people and our infrastructure. This is what the **Project Reliability** KRA is all about. Maintaining reliable deliveries and avoiding and minimizing the consequences of unplanned outages depend on cradle-to-grave asset management, including reliability-centered maintenance, condition-based monitoring, expanded predictive maintenance programs and innovative approaches to the replacement of aging system-wide assets. Our readiness also depends on effectively managing the knowledge and skills of our workforce. CAP’s award-winning Apprenticeship Program continues to produce highly-qualified craftsmen to maintain and repair our critical infrastructure. In 2017, we began the third year of our Supervisor Academy, a comprehensive training program for new supervisors, and launched our Manager University. We will see the implementation of our Leadership Institute for executives as part of this Biennial Budget. These initiatives are key pieces of CAP’s Personal and Organizational Development (POD) program.



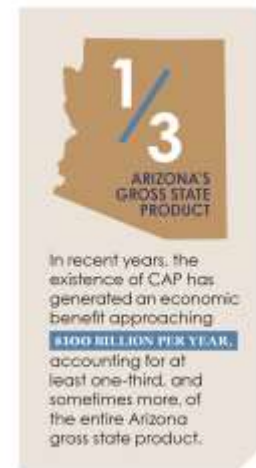
In 2015 we received recertification as a Voluntary Protection Program (VPP) STAR workplace, as an occupational safety and health designee. Safety will remain one of our core initiatives.

The **Finance** KRA encompasses maintaining CAP’s financial health, managing CAP’s assets and financing major expenditures. Managing challenges in these areas go hand in hand with the initiatives in the other KRAs, including planning for capital expenditures related to our aging

infrastructure, water supply acquisition, replacement of our power portfolio and programs to respond to drought and mitigate shortage. We have developed innovative approaches with our water users to protect Lake Mead while offering financial incentives that help alleviate increasing costs. Flexible rate-setting policies and rate-stabilization mechanisms have been put into place to help soften the impacts of cost increases to water users when shortage occurs. In 2013, we raised property taxes for the first time in over 25 years as a hedge against future exposures. However, new challenges continue to put pressure on water rates and CAP's Strategic Reserves. The same economics in the electricity market that precipitated the closure of NGS have also reduced the value to CAP of the sale of Navajo Surplus power, a major source of revenue used for our repayment to the federal government. Delays in the reallocation of a portion of the NIA pool water have also delayed the receipt of over \$50 million in associated revenues. While anticipated future costs for the renewal of the NGS lease and coal contract in 2020 and the implementation of the TWG agreement have been eliminated, the costs of decommissioning NGS have been accelerated by 25 years. Our Board has taken steps and is considering other actions to redeploy tax revenues and restructure rates to responsibly recover the cost of service and maintain healthy reserve levels. Our 2018 / 2019 budget reflects our commitment to keep controllable costs as low as possible while responsibly meeting our obligations to deliver water, maintain our critical infrastructure and a reliable water supply and remain prepared for the future. CAP will continue to closely manage financial programs and resources to deal with the challenges that face us and complete the important entrusted to CAP.



Everything we do at CAP is wrapped under the final KRA of **Leadership and Public Trust**. We have an extraordinary responsibility in this area, since we operate and maintain a critical infrastructure project that generates about \$100 billion of economic benefit to Arizona every year, which is a significant portion of the state's Gross Domestic Product (GDP). In the midst of the many pressing challenges facing CAP, ongoing transparency and communications with our Board, customers, constituents and other stakeholders is paramount. As an organization that serves the regions where more than 80% of the state's population lives, CAP places great value in building and maintaining public trust in our leadership and management decisions. CAP informs and educates its customers and stakeholders to ensure reliable water supplies for future generations and sustain Arizona's economy. During this biennial budget, we will continue to identify and communicate specific information regarding CAP's priorities and increasing opportunities for our Board and staff to convey focused messages to the communities we serve.

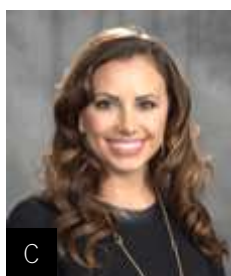


Our strategies and action plans are described in greater detail in the following pages, along with the accomplishments we have already seen to date. We believe this document will not only communicate our fiscal and operational health to you, but it will also serve as our financial plan, our policy guide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

We take pride in our budget and business plan publication, as we have throughout the years, and we are pleased to share this latest edition with all of you. Our ability to excel in this area 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 as well as into the future.

Theodore C. Cooke
General Manager

THE CAWCD BOARD OF DIRECTORS



Lisa Atkins
President



Jim Holway, Ph.D.
Vice President



Sharon Megdal, Ph.D.
Secretary

Maricopa County

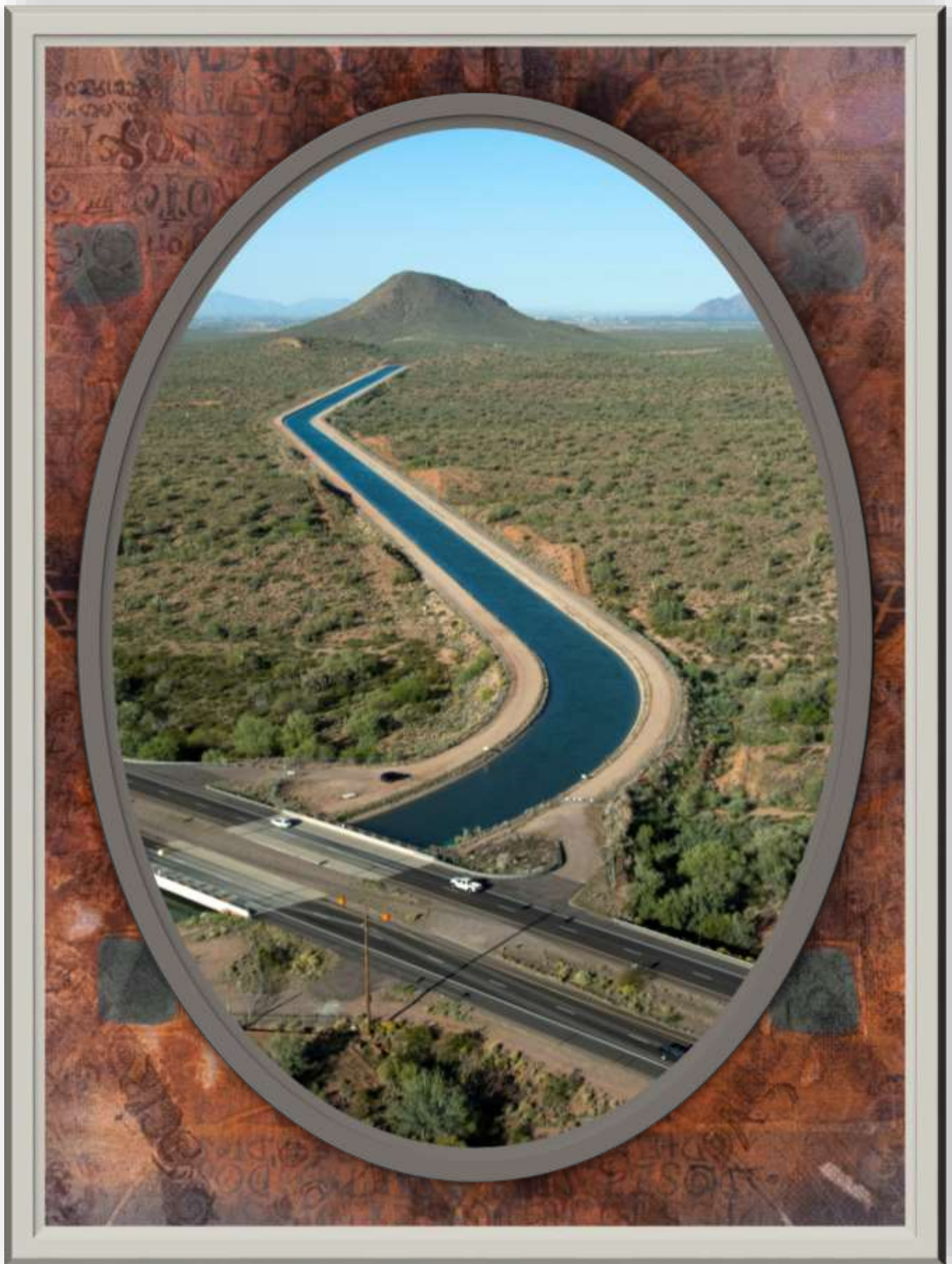
A. Alexandra Arboleda	Term Ending 2022
B. Lisa Atkins	Term ending 2018
C. Jennifer Brown	Term ending 2022
D. Terry Goddard	Term ending 2018
E. Benjamin Graff	Term ending 2022
F. Jim Holway, Ph.D.	Term ending 2022
G. Mark Lewis	Term ending 2022
H. Rod Lewis	Term ending 2018
I. Heather Macre	Term ending 2018
J. Pam Pickard	Term ending 2018

Pima County

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

Pinal County

O. Jim Hartdegen	Term ending 2020
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Canal at AZ Route 87

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, 2016. 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

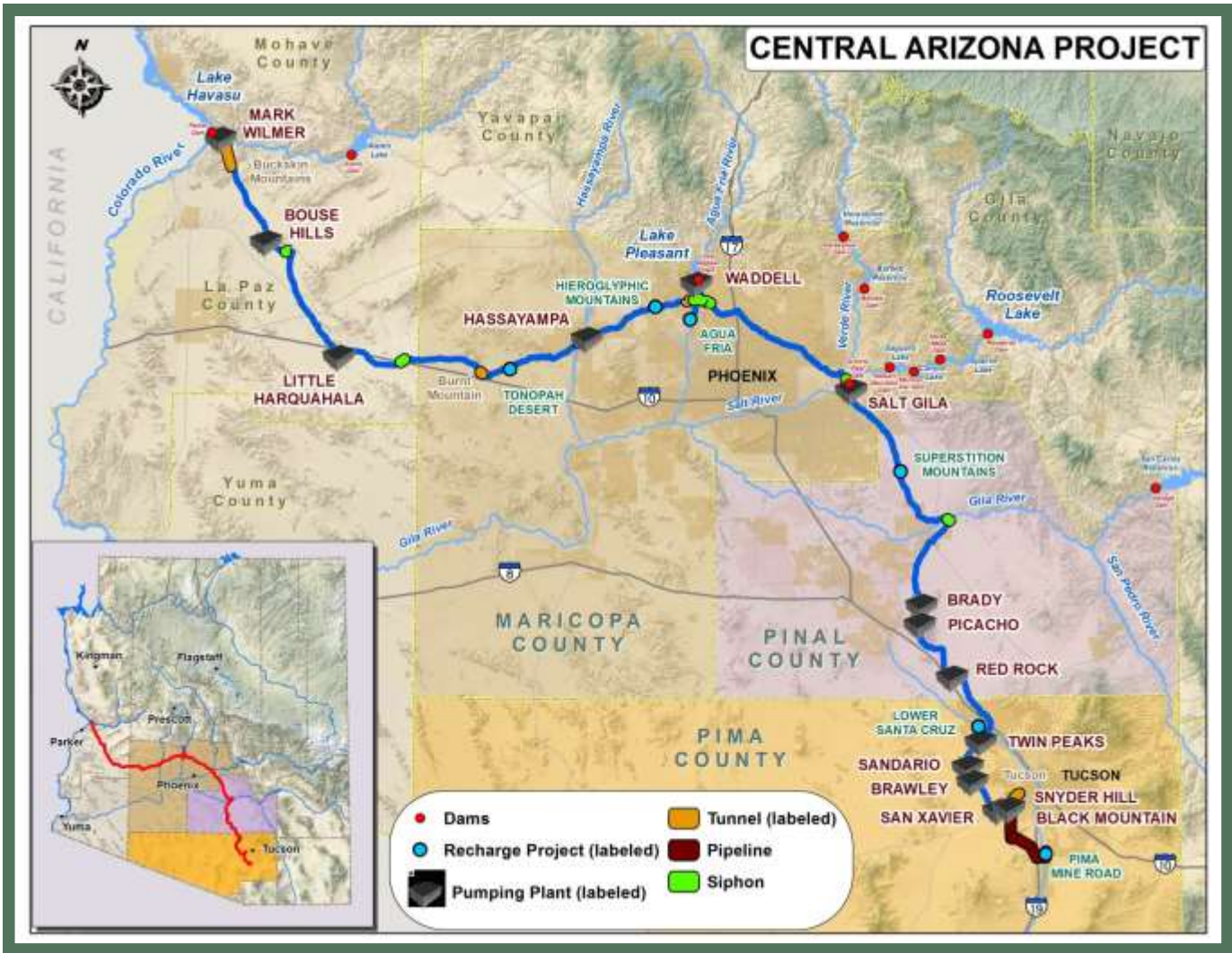
The Environment: We will operate in an environmentally responsible manner

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 top notch 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	18
Fannin-McFarland	63	1	86	1	16
Tucson	83	9	1,569	1	12
Totals	336	15	2,906	12	46

CAP PROFILE

Central Arizona Project was created in 1971 as the Central Arizona Water Conservation District, 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.

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.

Secondly, 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 46 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 the 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 Central Arizona Groundwater Replenishment District, and to build, operate and maintain underground storage projects.



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 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.

Arizona was in dispute over its share of the 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 CAP. The bill provided for the U.S. Bureau of Reclamation 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.



GOVERNANCE AND CAWCD

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 and meet monthly. Members serve staggered six-year terms and are not compensated for their time.

CAP's daily operations are managed by approximately 500 people who are responsible for system maintenance and operations, repayment obligations, public education and policy, and creating water resource management programs for Arizona. Approximately two-thirds of the employees work at CAP Headquarters located in north Phoenix, while the remainder work on the system and at facilities located throughout the system.

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 across 24,000 square miles of land, which is 20% of the state. CAP's Headquarters are located along their aqueduct in north central Phoenix, the capital of Arizona.



Scottsdale Housing Near Canal

CAP delivers water pursuant to delivery agreements between the federal government, and Municipal and Industrial (M&I) and tribal stakeholders. Long-term contracts total 1.415 million acre-feet of water. When available, short-term excess CAP water is delivered to several users via year-to-year contracts. Historically, the combined deliveries totaled about 1.5 million acre-feet of water annually.



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. CAP reserves and makes available a volume of excess water (currently 300,000 acre-feet) for specific agricultural

	Maricopa	Pima	Pinal	Arizona
1990 Population	2,130,400	668,500	116,800	3,665,228
2000 Population	3,072,149	843,746	179,727	5,130,632
2014 Population	4,008,651	1,007,162	389,192	6,498,569
2045 Projected Population	6,371,650	1,323,208	913,287	10,265,015
Percent change projected between 2014 and 2045	58.9%	31.3%	134.7%	57.9%
2014 Labor Force (<i>non-farm</i>)	1,956,284	461,806	151,645	3,105,000
2014 Land Area (<i>square miles</i>)	9,222	9,184	5,374	113,635
2014 Unemployment Rate	5.9%	6.2%	7.2%	7.0%

Based on latest information available from the 2016 Arizona Commerce Authority (Last Updated 9/14/2015) and 2045 data based on information from Office of Economic Opportunity (<https://population.az.gov/population-projections>)

customers. As part of an overall agreement, 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

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 CAP water.



Downtown Phoenix

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 to keep them apprised of issues affecting CAP and their water.

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. CAP also sponsors a tribal internship program, maintains a tribal web page and publishes a newsletter that features articles of interest to Indian communities. 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

CAGRDR has a statutory obligation to replenish groundwater used by members in CAP's three-county service area. Created in 1993, CAGRDR must replenish groundwater withdrawals made by new developments enrolled in the CAGRDR, and water providers and homeowners agree to pay the cost to replenish any amount of groundwater pumped beyond limitations set by the state. CAGRDR currently replenishes groundwater on behalf of 25 member service areas (MSA) and 1,120 member land (ML) subdivisions representing approximately 268,000 homes.



Superstition Mountain Recharge Site



Agua Fria Recharge Site

More information visit:
CAGRDR.com

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).

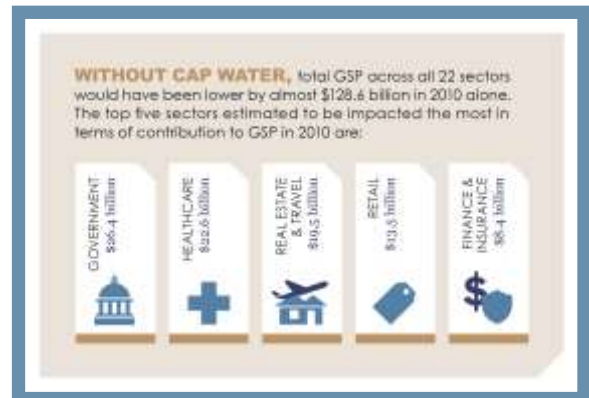
The GSP represents the dollar values of all goods and services produced in the region and are a measurement of the economic output of a state, a counterpart to the gross domestic product (GDP) for the nation. In recent years, the existence of CAP has generated an economic benefit approaching \$100 billion 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 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.



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; they're working in collaboration with the Colorado River Basin states, federal government, Mexico and local and regional partners, which includes 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 demands on the Colorado River system, known as the structural deficit.

In 2007, to prepare for 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 identifies 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 now 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.

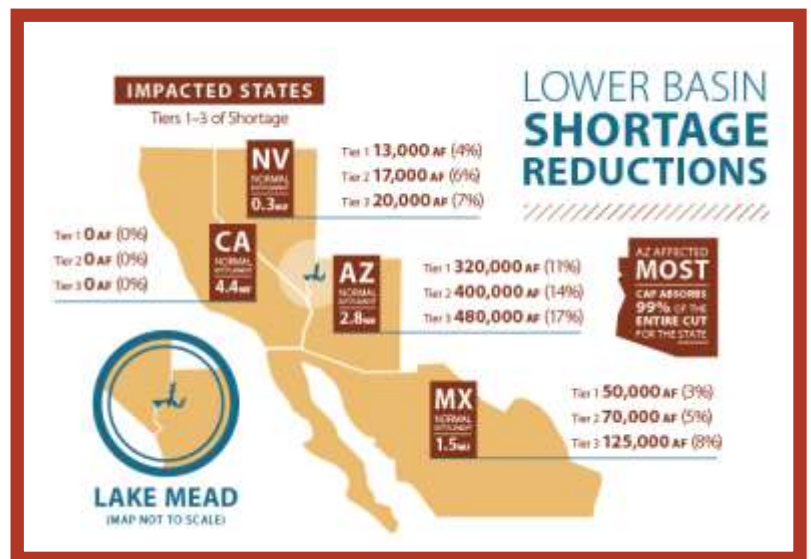
Frequently Asked Questions:

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 volume 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 1075', a shortage would be declared for the following year (e.g., a shortage would be declared for 2019 if the August 2018 prediction of January 2019 is below 1075'). A shortage has not been declared on the Colorado River since 1964.

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. It would also reduce a portion of the CAP water supply identified for groundwater replenishment, impact 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.



Central Arizona Project has 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. A Colorado River shortage would reduce CAP supplies by up to 120,000 acre-feet.

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 1050' and 1025'. The 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

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 - 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 averted a shortage for 2017

To date, CAP’s collaborative efforts have been successful in avoiding a shortage in 2016 and 2017, and CAP is committed to continuing those conservation programs that are protecting the levels of Lake Mead and keeping the system out of shortage. In addition, CAP, following the leadership of 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 power 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.





A FISH WITH A PURPOSE

By Scott Bryan, CAP Senior Biologist

Aquatic weeds and water delivery are typically not a good combination. When **weeds are growing in CAP's** 336-mile closed system, they tend to slow water flow by causing excess friction.

When the vegetation dies, it floats to the surface and eventually restricts water flow to the pumps by clogging the trash racks. If the rake **systems can't keep up, the** pumps will shut down due to vibration, cavitation, or just a lack of water. In many water conveyance systems, drying out the canal or a good dose of aquatic herbicide are used to control or eliminate weed growth. However, CAP delivers water to municipal and agricultural customers 365 days a year, so drying out **the canal isn't possible and chemical treatment can't be** used. So at CAP, we invite a special guest to the salad bar!

That guest is the grass carp, or white amur. Grass carp are a non-native fish species included in the Asian carp family. Although other members of the Asian carp family (including silver carp and bighead carp) have wreaked havoc in rivers of the Midwestern United States, fish managers have figured out how to take advantage of **the grass carps' voracious** appetite. When stocked in the proper densities, they are very

effective at controlling or eliminating aquatic vegetation from a body of water.

However, they can very easily over-populate and create an imbalance in an aquatic ecosystem. Because of this, most states, including Arizona, require that only triploid grass carp are stocked. Triploid means that they have an extra set of chromosomes which prevents these fish from reproducing in the wild (sterile). The process of sterilizing the fish starts early in the life of the fish, when either heat or pressure is applied to the fertilized egg. Fish are intensively tested by the U.S. Fish and Wildlife Service prior to being sold for stocking to ensure that each individual is triploid.

CAP has been stocking triploid grass carp in the canal since 1990 to control vegetation. Grass carp live about 10 years before dying off naturally, but are only effective at vegetation control until about age 7, so they must be re-stocked to maintain an effective population. The stocking rates are based on historical weed surface area, and estimates of mortality and effectiveness. Because of this **"complex" equation, stocking** numbers will vary from year to year, but are usually between 2,500 and 3,000 fish

per year. In March, fish are trucked in from Arkansas, which is about a 14 hour trip, and distributed throughout the canal based on areas of need.



Scott Bryan, CAP Senior Biologist

All stocked fish have a head width equal to or greater than the space between the grates on the trash racks, which is about 2.5 inches. That means that the grass carp stocked into the canal average about 18 inches in length and weigh about two pounds. They grow fast and they grow large, consuming almost 20 percent of their body weight each day. **Fishing isn't allowed in the** canal (it is fenced to provide security for people and wildlife) and the system is closed so they cannot escape. They are definitely doing their job. In recent years, we have perfected our stocking quantities, virtually eliminating weeds throughout the closed system.

CAP SYSTEM USE AGREEMENT

Wheeling, firming and exchanges aren't words CAP throws around lightly, but those three words are the basis of an historic agreement recently signed by CAP and the Bureau in February 2017. The Central Arizona Project System Use Agreement 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.

Collaboration between CAWCD, the Bureau, the ADWR and the AWBA, has created an agreement that provides the flexibility for cost-effective recovery of stored water, including more than four million acre-feet of CAP water stored in the aquifers of Central and Southern Arizona.

CAWCD is fortunate to benefit from the solid backing of the entire Arizona Congressional delegation, particularly Senator Flake, who took the lead on this issue. Significant collaboration with the Governor, as well as Arizona's agricultural organizations, municipalities and tribes were also critical elements to this achievement.

Reaching agreement with the Bureau was necessary because the CAP is a federal project that is subject to a complex set of existing agreements and laws. The System Use Agreement unifies



CAWCD Board of Directors & BOR

provisions of multiple agreements and resolves many long-standing issues related to CAP's operation of the system. By establishing an overall framework, the 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.

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



Colorado River in Arizona



Colorado River in Arizona

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.

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.

REVENUE COLLECTION

CAWCD collects revenues primarily through the sale of water and power, through collection of property taxes and through interest on investments held at the Arizona State Treasurer's office. The District sets water delivery charges for all customers to operate, maintain, repair and replace CAWCD infrastructure. CAWCD also collects assessments from CAGR customers. The District has a right to capacity in the Navajo Generating Station (NGS) located in northeastern Arizona. To the extent that the CAWCD power demands are less than the resources available, the Western Area Power Administration (WAPA) sells the excess power to others and the revenue is available for repayment of CAP construction costs.

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 all property 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
2013	\$32,229	-6.3%	\$2,005	-7.9%	\$7,624	-5.7%	\$41,858	-6.5%
2014	\$35,080	8.8%	\$2,041	1.8%	\$7,580	-0.6%	\$44,700	6.8%
Prop 117 Limitation Begins								
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	\$40,174	5.0%	\$2,359	5.3%	\$8,419	4.3%	\$50,952	4.9%
2019	\$42,102	4.8%	\$2,479	5.1%	\$8,717	3.5%	\$53,298	4.6%
2020	\$44,256	5.1%	\$2,603	5.0%	\$9,047	3.8%	\$55,907	4.9%
2021	\$46,407	4.9%	\$2,725	4.7%	\$9,408	4.0%	\$58,541	4.7%

Sources: CAP; Maricopa County; Pinal County; Pima County; Elliott D. Pollack & Company April 2017

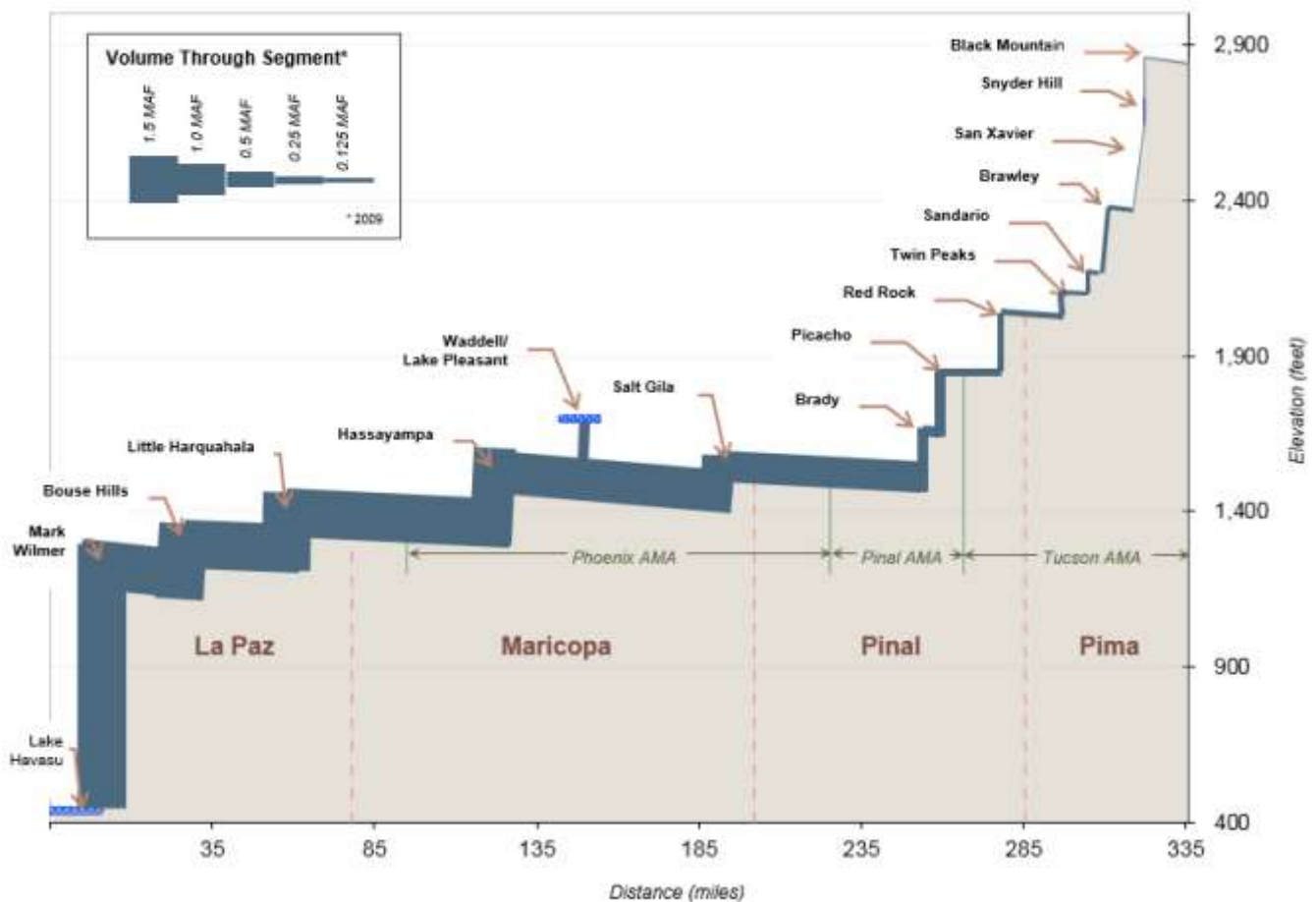
Footnote: Tax years 2013-2014 display Net Assessed Value (NAV), Tax years 2015-2021 show Primary Limited Property Value (LPV)

PUMPING POWER

CAP requires about 2.7 million megawatt hours (MWh) of electricity per year to move water 336 miles across the Arizona desert. Power is used at the pumping plants to lift water so it can continue to flow through the system by gravity to the next pumping plant. In an average year CAP uses more electricity than over 185,000 average Arizona residential homes combined. Currently, most energy is obtained from the NGS, with market purchases, energy from Hoover Dam, and the hydroelectric energy resulting from releasing water from Lake Pleasant providing the remainder of the energy.

CAP schedules power 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 power schedule to maximize pumping during off-peak times when power is less in demand and less expensive. Using more off-peak energy for pumping provides more on-peak energy to WAPA, in the form of Navajo Surplus Power, which is sold into the market at a more lucrative price. Any surplus power profits are used to assist CAWCD with the annual CAP federal repayment.

CAP ELEVATION PROFILE



NAVAJO GENERATING STATION

Four of the Navajo Generating Station owners, Salt River Project (SRP), Arizona Public Service (APS), Nevada Energy (NVE) and Tucson Electric Power (TEP) along with the Navajo Nation have executed the lease agreement for NGS to continue to operate through 2019. The Los Angeles Department of Water and Power (LADWP) and the U.S. have not yet completed their approval processes. LADWP's approval system is a several month-long process involving their City Council, and the U.S. needs to comply with National Environmental Policy Act (NEPA) before the BOR can approve SRP signing on its behalf. Both the LADWP and U.S. approval processes are underway and are expected to be completed before the December 1, 2017 deadline. **Without LADWP's and the U.S. government's approval of the lease agreement, decommissioning of NGS would need to commence by the end of 2017.**

The NGS participants also have indicated that they will consider offers to purchase NGS from a buyer acceptable to the Navajo Nation through October 1, 2017. If an offer were to come through that meets the necessary requirements, there would be a period of time extending through mid-2018, for negotiation of all final agreements. Any buyer would have to assume operation of the plant consistent with the Federal Implementation Plan (FIP) approved by EPA. In light of the non-U.S. owners' decision not to operate NGS beyond 2019, the federal agencies have paused the larger Environmental Impact Statement (EIS) process, which would need to be reinitiated should an agreement be reached with a potential buyer.

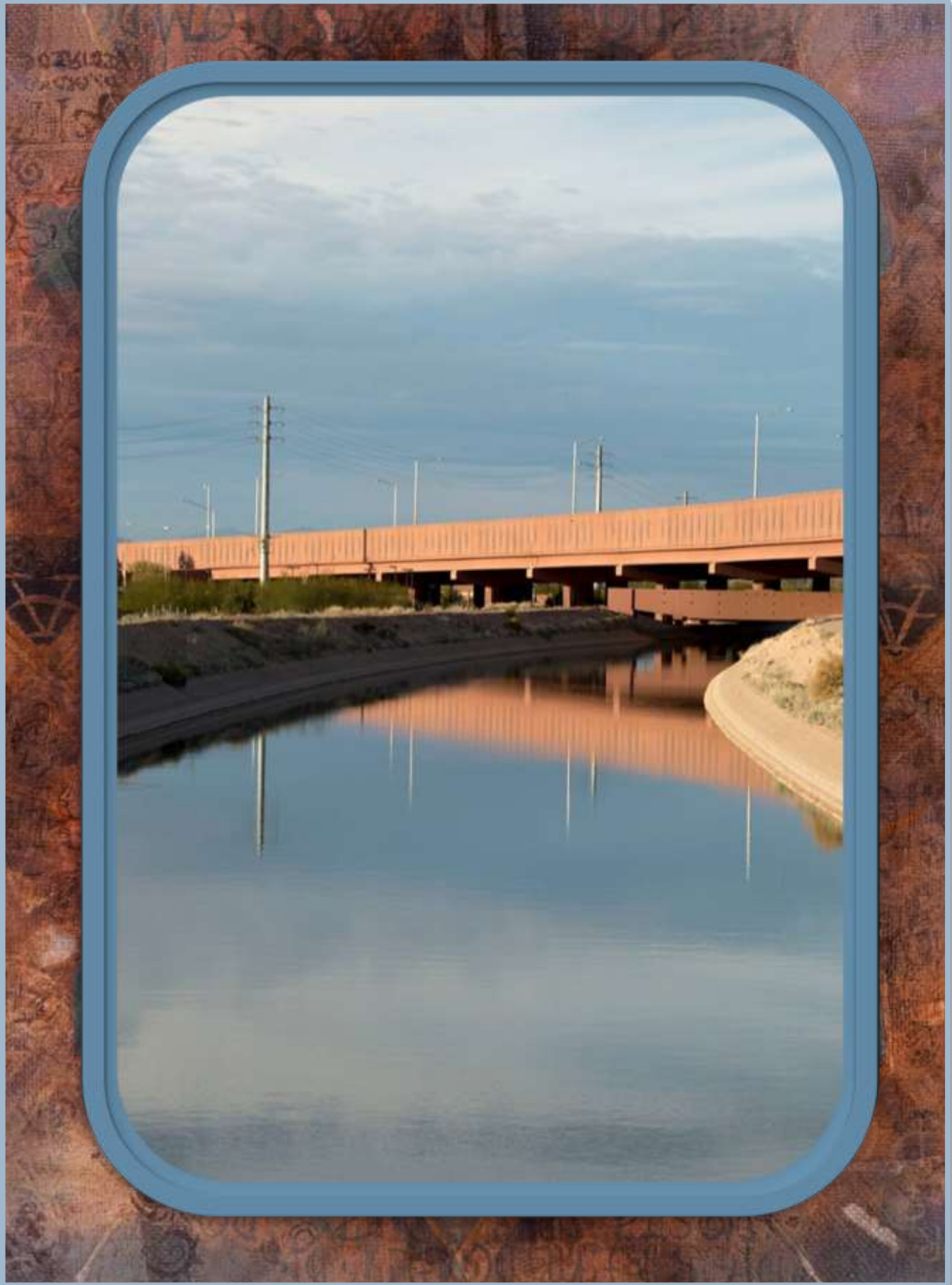


Navajo Generating Station

If no offer is made to purchase NGS, the owners will continue to operate the plant safely until it closes down no later than December 22, 2019 at which time decommissioning would commence.

FUTURE POWER RESOURCES

After December 22, 2019, CAWCD will no longer receive power from NGS and will need to replace the vast majority of energy required for the CAP pumping load from new resources. Late in 2017, CAWCD will initiate a Request for Proposal (RFP) to secure a portion of future power resources required after NGS closure. The remainder of CAP power requirements will be acquired closer to the time of delivery through a combination of short-term energy purchases and daily energy markets. **It is the company's goal to serve the CAP pumping plants from a diversified portfolio of power resources including multiple generation sources and a mixture of long-term resources and short-term and daily energy purchases.**



Canal at Rt. 202 Bridget in Mesa—Mile Post 193

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 5. The following key assumptions provide the framework and guidance for development of the 2018 / 2019 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 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
- 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.
- Non-Indian Agriculture allocation is not anticipated during the budget period

CAGR D Account

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

Assumptions

- CAGR D rates include components for the cost of replenishment water, replenishment reserve, water rights, infrastructure and administration
- Membership dues will be collected each year

Supplemental Water Account

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

Assumption

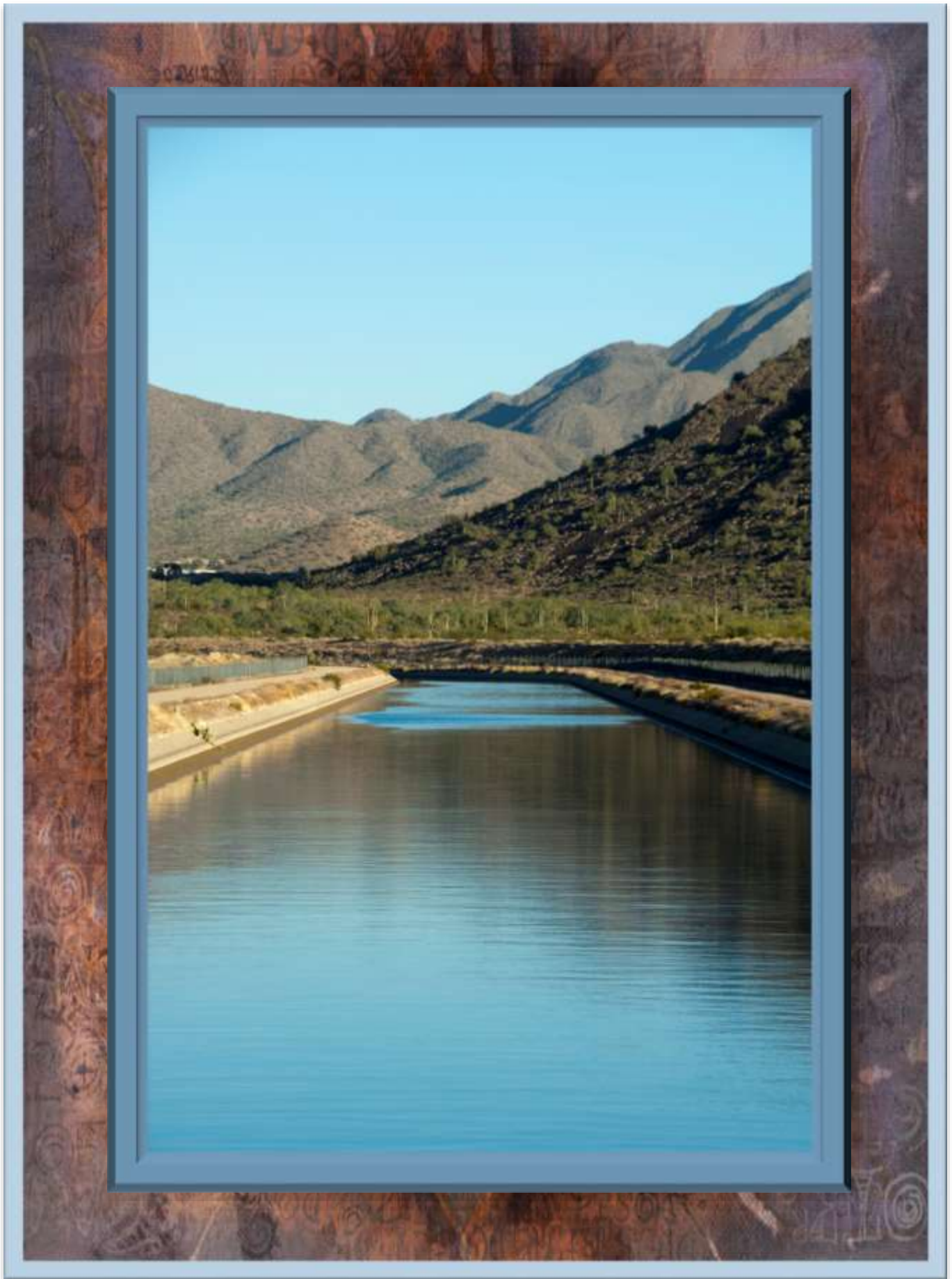
- Interest accrues on balance and there are no anticipated expenditures for the account during the budget period

Captive Insurance Fund

Fund contains 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 actuarially
- 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 power charges

Power and Basin Development Fund (BDF) revenues

Property taxes

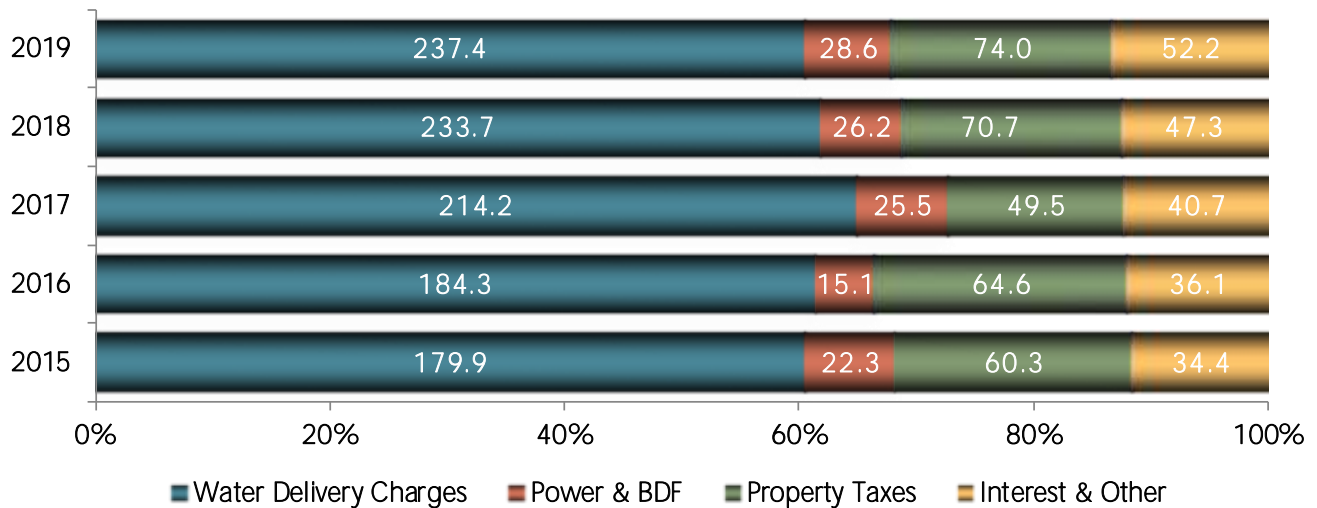
Interest income, reimbursement and other revenues, which includes CAGRDR revenues

Water delivery charges are the District's most significant revenue source, accounting for over 60% of the 2018 / 2019 Budget. Property taxes comprise approximately 18% of revenues, Power and Basin Development Fund (BDF) revenues represent over 6%, with the balance comprised of CAGRDR charges, interest income, 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, CAGRDR 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 CAGRDR 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 2018 budget is \$48 million higher than 2017 projected revenues and 2019 is \$14.3 million higher than 2018. The major changes are discussed in the relevant revenue sections that follow.

(Millions)	2017 Projection	2018 Budget	2019 Budget	18 vs 17 Incr/(Decr)	19 vs 18 Incr/(Decr)
Water O&M Charges	\$ 194.0	\$ 204.3	\$ 206.7	\$ 10.3	\$ 2.4
Capital Charges	20.2	29.4	30.7	9.2	1.3
Power & Other BDF	25.5	26.2	28.6	0.7	2.4
Property Taxes	49.5	70.7	74.0	21.2	3.3
Interest Income	6.5	7.3	9.1	0.8	1.8
Other Revenues	34.2	40.0	43.1	5.8	3.1
Total Revenues	\$ 329.9	\$ 377.9	\$ 392.2	\$ 48.0	\$ 14.3

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 four major classes: Municipal and Industrial (M&I), agriculture (Ag), federal (Indian) and underground storage. Within these categories are deliveries under 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.

CAWCD has an "Access to Excess" policy for the allocation of excess water. Available excess water, after satisfaction of the Agricultural Settlement Pool, is made available annually as follows:

- Up to 35,000 AF to meet CAGRDR annual replenishment obligations
- All remaining excess water to the Statutory Firming Pool

For CAGRDR replenishment obligations, the excess water pool will be a secondary alternative - that is, CAGRDR will first use resources in its water supply portfolio (other than long-term storage credits (LTSC)) to meet annual replenishment obligations; if those resources are insufficient, then CAGRDR may access the excess water pool, up to the 35,000 AF limit.

The Statutory Firming Pool will be apportioned among the Arizona Water Banking Authority (AWBA), CAGRDR (for replenishment reserve use) and Reclamation (for Indian firming) based on an annual coordination meeting among the three organizations. State law, ARS 48-3772(E)(8), provides that the CAGRDR replenishment reserve shall have access to excess CAP water equivalent to that of the AWBA for firming CAP M&I subcontracts.

The Arizona Water Settlement Act established a pool for agricultural 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-foot 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 8-3). 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, agricultural customers do not pay Fixed Operations, Maintenance and Replacement (OM&R) as part of the agreement, which is referred to as the Ag Consideration.

Historically, the volatility of water delivery volumes has been influenced primarily by weather conditions, underground water storage capacity and the availability of surplus water on the Colorado River in any given year. As M&I and federal water usage has grown, the availability of excess water (water that has not been ordered by long-term customers) has decreased.

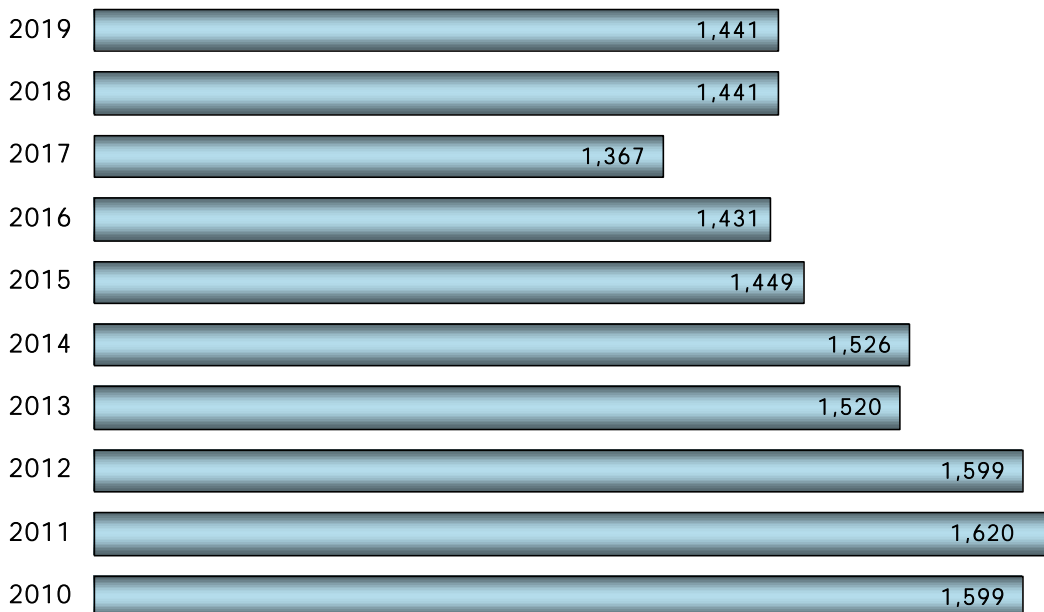
Although the nominal CAP supply in a normal year is 1.5 million acre-feet, additional water (up to 1.9 million acre-feet or more) can be delivered in years when there is a declared surplus on the Colorado River. Conversely, less than 1.5 million acre-feet may be delivered if less water is available or there is a shortage declaration. There is adequate underground storage capacity, which is accomplished in coordination with AWBA utilizing excess water.

Due to concerns about shortage and to improve the elevations of Lake Mead, CAWCD through partnership with its stakeholders and the state and in coordination with the Bureau of Reclamation (Bureau, BOR or Reclamation), have entered into agreements to not take their full entitlements and to forbear water deliveries, which in turn is left in Lake Mead. These turn-backs of water will assist in increasing the lake level or slowing its decline. The Bureau has also been entering into agreements to decrease deliveries to various tribal communities.

Water Deliveries 2010 to 2019

Acre-Feet (000)

Excludes credits



Although there is a potential for a shortage in 2019, one would not be declared until August 2018 when the Bureau releases it's 24-month study. In the event one is declared, staff will review the impacts on the budget. From a revenue impact, water delivery revenue would increase as the initial decreases would be to the agricultural districts, who do not pay Fixed OM&R as stated above, and the Fixed OM&R rate would increase to the remaining customers.

Major Assumptions

- The CAWCD planned deliveries include a reduction of approximately 200,000 acre-feet of deliveries in 2017, 2018 and 2019 for CAWCD sponsored programs and about 90,000 acre-feet reduction for Bureau of Reclamation programs in 2017.
- The Ag Settlement Pool is 300,000 acre-feet during the budget period.

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 serve and have served 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 a means to replenish water for CAGR obligations.



CAWCD Underground Storage Operational Capacity

307,000 Total

Acre-Feet

Pima Mine Road	30,000
Lower Santa Cruz	42,000
Agua Fria	25,000
Hieroglyphic Mountains	35,000
Tonopah Desert	150,000
Superstition Mountains	25,000

CAP Underground Storage Facilities

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 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 of Directors (Board) takes additional action. In 2016, CAP set the provisional rates for 2018. Due to significant changes with NGS, transmission costs and water volumes, the Board revised the 2018 rates as well as the advisory rates. It is these most recent rates that were utilized to develop the 2018 / 2019 budget.

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 2015 and 2016 and water delivery volume assumptions and related revenues for 2017 through 2019.

Water Operation & Maintenance (O&M) rates have three major components: Fixed OM&R, pumping power and capital charges. Each of these components is discussed in the following sections.

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Volume <i>(Acre-feet in Thousands)</i>					
Municipal & Industrial	539.3	540.7	603.8	599.4	602.7
Agricultural	318.3	280.8	258.2	250.4	250.4
Federal	507.4	530.1	486.2	573.0	573.0
Underground Storage	84.2	79.3	18.7	17.8	14.5
Total Water Deliveries	1,449.2	1,430.9	1,366.9	1,440.6	1,440.6
CAGR Credit Transfer	8.8	5.0	19.2	14.8	17.1
	1,458.0	1,435.9	1,386.1	1,455.4	1,457.7
Revenues <i>(Net Elims / Millions)</i>					
Water O&M Charges	\$ 164.3	\$ 168.4	\$ 194.0	\$ 204.3	\$ 206.7
Capital Charges	15.6	15.9	20.2	29.4	30.7
Total Water Delivery Revenues	\$ 179.9	\$ 184.3	\$ 214.2	\$ 233.7	\$ 237.4

Fixed OM&R Rate Component

The Fixed OM&R component of the rate is comprised of three parts: O&M costs, a capital replacement component ("Big R") and a rate stabilization component. 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 and 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 incorporated into the Fixed OM&R rate in 2012 and is deposited into a separate rate stabilization reserve. It has a target of \$30 million and is projected to reach the target by the end of 2018.

The rate stabilization component is 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 this fund can be used to “fine tune” the preset rate to the actual year-end rate and eliminate the need to bill additional charges to customers. This component allows customers to have predictability in their rates for budgetary planning.

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 committed secondary rate stabilization fund. CAWCD agreed to match a portion of the amounts that were contributed to the fund. This fund will allow participants to further decrease the initial rate impacts resulting from a shortage. If a shortage does not occur, 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.

M&I, federal and underground storage stakeholders pay the full Fixed OM&R rate. In consideration of giving up their subcontract water rights, agricultural settlement pool stakeholders’ Fixed OM&R is paid from ad valorem taxes.

Pumping Power Rate Component

The pumping power rate component relates to the energy costs associated with delivering water and includes a cost for the decommissioning of the Navajo Generating Station (NGS). Through agreements with BOR, CAP can operationally take advantage of two types of energy-saving activities if the market warrants it:

Shaping (Energy) – the process of shifting CAP pumping activity in time to allow for the sale of energy when prices are higher and the purchase of replacement energy when prices are lower, resulting in a net revenue gain while still meeting CAP water deliveries.

Displacement (Energy) – the process whereby energy available for CAP pumping is sold at a location with a higher market price (e.g., McCullough) and replacement energy is purchased at a location with a lower market price (e.g., Westwing or Palo Verde), resulting in a net revenue gain while still meeting CAP water deliveries.

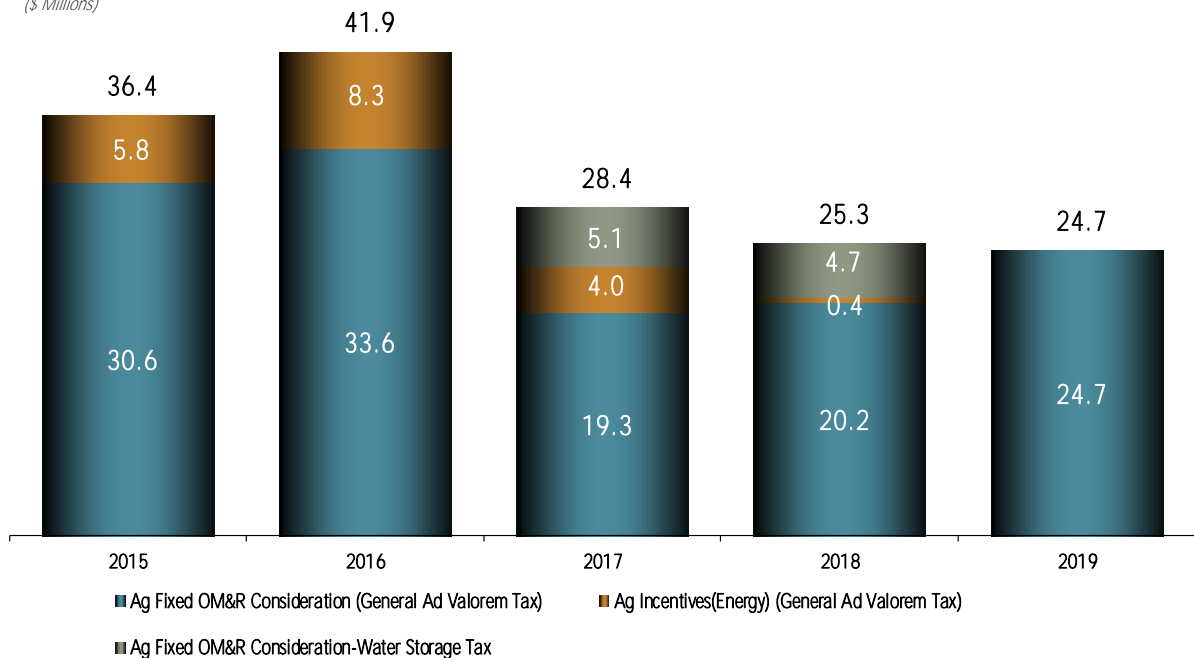
All customers pay pumping power, including agricultural customers. CAP offers incentives for agricultural customers (Ag incentives) if they meet specific delivery goals:

- meeting agricultural settlement pool delivery schedule (eliminated in 2017)
- partnering with AWBA or CAGR D as a groundwater savings facility (GSF)
- meeting recovery goals

Ag incentives earned can only be applied to the pumping power rate component on settlement pool deliveries.

Agricultural customers that had met some minimum requirements were offered a forbearance program that included an additional discount on their energy charge in the budget period. These additional discounts have been incorporated into the 2018 / 2019 budget.

Utilization of Taxes for Agricultural Programs
(\$ Millions)



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; federal customers do not pay a capital charge. Any repayment obligation amount not covered by capital charges are made up from property taxes.

Several underground storage facilities (USF) were constructed using State Demonstration Project funds and General Fund reserves. When these facilities are used to store water for entities other than municipal, AWBA and CAGR D (e.g., federal, industrial, etc.), an underground water storage capital charge is assessed to recover the costs of constructing these facilities.

Major Assumptions

- Water O&M revenues are projected at the projected volumes and either reconciled rates or current firm and advisory OM&R rates based on contracts, net of the rate stabilization component.
- M&I capital charge and facility use rates will be \$45/acre-foot for 2018 and \$47/acre-foot for 2019.
- The Ag Incentives will be continued in 2018 but not 2019, as indicated in the rate schedule on page 8-3.
- Revenues from non-Indian Ag (NIA) will not be received during the budget period.
- Delivery levels will be at the levels indicated on page 8-1.
- NGS will be operational through 2019.



CAP Canal near Mile Post 13

POWER AND BASIN DEVELOPMENT FUND (BDF) REVENUES

CAP is a multi-purpose water resource project authorized by the Colorado River Basin Project Act and constructed by the BOR. 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 revenues are earned from two sources: (1) the sale of excess energy associated with the Bureau's share of the NGS not needed for CAP pumping needs and (2) a surcharge on energy sold in Arizona from the Hoover Power Plant and the Parker-Davis Project. Other BDF activity includes: net transmission revenues, revenues associated with land-use agreements, sale of excess lands, energy shaping and displacement, other miscellaneous revenue, and the net revenues and expenses related to the operation and maintenance of the NGS.

Major Assumptions

- CAP has access to power from NGS that meets its operational needs and the remainder becomes part of net power revenues.
- Salt River Project (SRP) is under contract to purchase certain surplus power through 2031, though with the closure of NGS, the contract will now go through 2019.
- Other surplus power sales will be at the market price for energy and may result in a loss; generation of surplus power may be curtailed if the market price is less than the variable cost of generation.
- Net power revenues are after covering net NGS operating expenses and capital costs on a cash basis.
- Land sales and land use fees will occur as indicated below.

(Millions)	2017 Projection	2018 Budget	2019 Budget	18 vs 17 Incr/(Decr)	19 vs 18 Incr/(Decr)
SRP consideration fee	\$ 28.4	\$ 29.3	\$ 30.1	\$ 0.9	\$ 0.8
Net surplus power/ net NGS operations	(8.4)	(6.7)	(6.8)	1.7	(0.1)
Hoover 4.5 Mil Revenue	3.1	3.1	3.1	-	-
Parker-Davis 4.5 Mil Revenue	2.7	2.7	2.7	-	-
Net CAP Transmission Revenues	(1.5)	(3.2)	(2.8)	(1.7)	0.4
Land-Related Revenue	1.1	0.8	2.1	(0.3)	1.3
Misc NGS Revenues	0.1	0.2	0.2	0.1	0
	\$ 25.5	\$ 26.2	\$ 28.6	\$ 0.7	\$ 2.4

REIMBURSEMENT AND OTHER REVENUES

Reimbursements and other revenues account for various miscellaneous items, such as CAGR D charges, recharge 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:

<i>(Thousands)</i>	2017 Projection	2018 Budget	2019 Budget	18 vs 17 Incr/ (Decr)	19 vs 18 Incr/ (Decr)
CAGR D Assessments	\$ 33,388	\$ 39,130	\$ 42,187	\$ 5,742	\$3,057
O&M of Underground Storage Facilities	1,326	1,247	1,331	(79)	84
Land Use Charges	149	118	124	(31)	6
Property Disposal (Non-Capital)	8	14	12	6	(2)
Captive Insurance Premiums	8,841	9,248	9,734	407	486
Other	361	476	473	115	(3)
Eliminations	(9,898)	(10,270)	(10,756)	(372)	(486)
Total Reimbursements and Other Revenues	\$ 34,175	\$ 39,963	\$ 43,105	\$ 5,788	\$3,142

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 them to levy 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). These taxes are used for CAP federal debt repayment, agricultural Fixed OM&R, Board-approved subsidies, recharge capital, smoothing project O&M expenditures and other purposes. This general ad valorem property tax was first levied beginning in the 1974 / 1975 tax year. Historical tax rates for each year are shown on page 2-14.

Beginning in the 2013 / 2014 tax year, the Board increased the General Ad Valorem tax rate to \$0.10 and designated that \$0.04 of this tax be set aside in a separate committed Extraordinary Cost reserve until such time that the Board authorizes its use. This amount was reduced to \$.025 in the 2016 / 2017 tax year. This reserve will be utilized to help address the many significant cost expenditures looming, including potentially the NGS decommissioning costs as well as a variety of

other unknowns, especially related to the energy market. The Extraordinary cost reserve is not part of strategic reserves and requires Board approval prior to use.

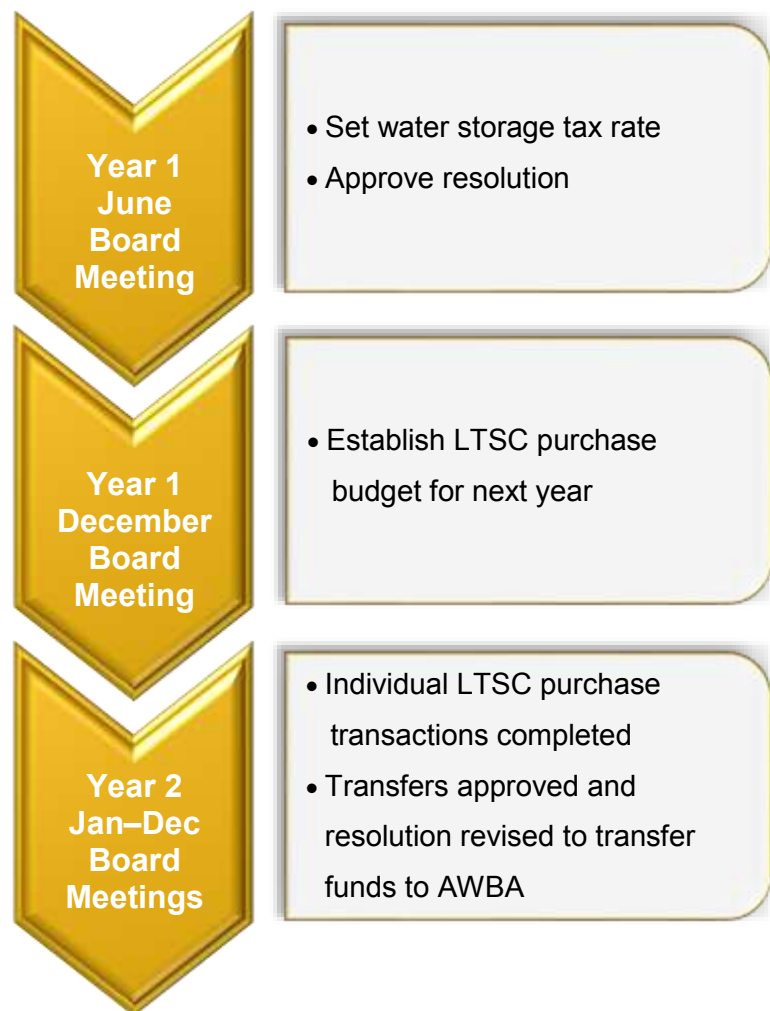
The General Ad Valorem tax, net of the amount designated for the Extraordinary Cost Reserve, is deposited in the District's working capital reserves and utilized for operating needs, including covering the Ag Consideration and Incentive programs.

Water Storage Tax

In 1996, the Arizona state legislature created the AWBA for purposes of increasing Arizona's use of its Colorado River entitlement and created the Arizona Water Banking Fund. 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.

AWBA LONG-TERM STORAGE CREDIT (LTSC) PURCHASE PROCESS

In 2014, ARS § 45-2423 was revised, allowing the AWBA to purchase Long Term Storage Credits. The CAWCD Board subsequently approved an amendment to the 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. Under this amendment, the CAWCD Board will continue to establish the Water Storage Tax rate and use each June under the existing statutes. Later in the year, as part of preparing its operating plan, AWBA may make a request for some amount of the Water Storage tax levied for the current tax year for the purpose of purchasing long-term storage credits. Once a purchase is finalized, the CAWCD Board will amend its resolution to transfer the funds to the AWBA to make payment on the LTSC purchase.



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 payment and CAWCD OM&R costs, which includes AWBA M&I firming.

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.

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.
- In 2018 and 2019, no transfers are planned in the budget to the AWBA for LTSC credit purchases. All water storage tax proceeds will be retained to be applied to CAP OM&R costs and repayment.

Tax Years (collected October- September)	General Ad Valorem Tax	Water Storage Ad Valorem Tax
1974-83	\$ 0.03	N/A
1983-84	0.05	N/A
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

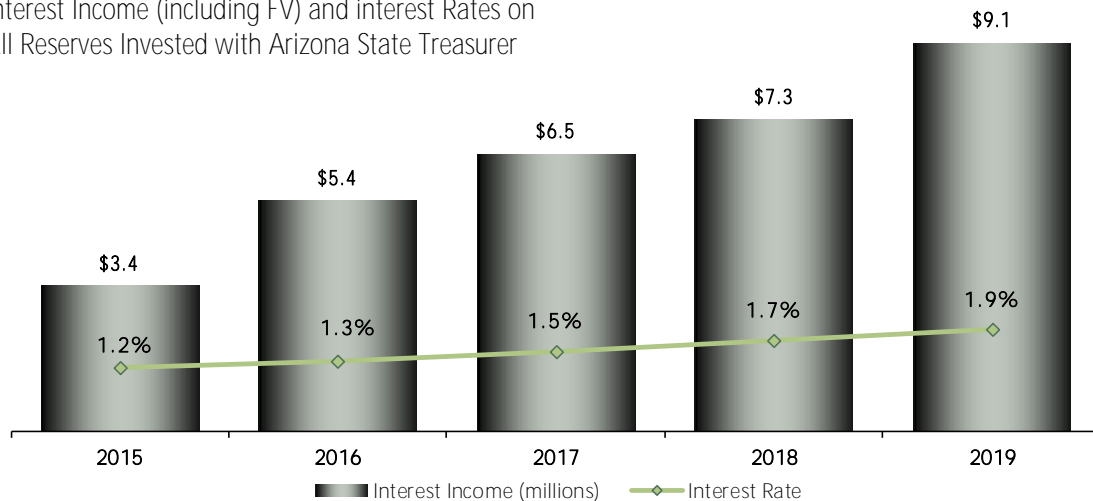
Calendar Year	General Ad Valorem Tax (Millions)	Water Storage Ad Valorem Tax (Millions)	Total (Millions)
2015	45.3	15.1	60.3
2016	46.1	18.5	64.6
2017	47.9	1.6	49.5
2018	50.5	20.2	70.7
2019	52.9	21.1	74.0

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 the Bank of Hawaii. CAWCD also receives interest on funds that are held in the Basin fund, which varies between \$700,000-\$900,000 per year, depending on the timing of a variety of factors.

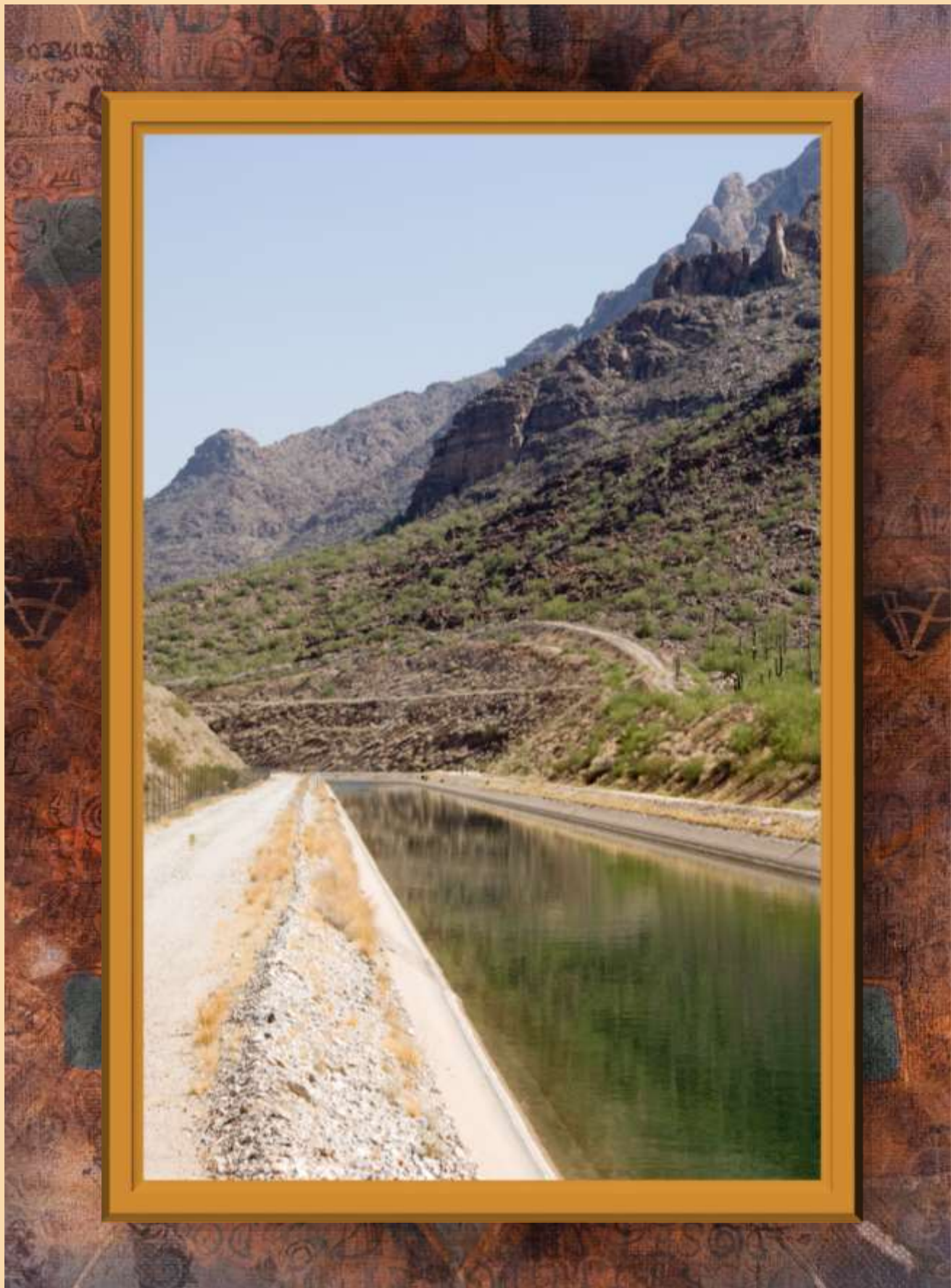
The following graph shows the historical Interest and fair value (FV) adjustments as well as the average annual interest rate on investments at the State Treasurer.

Interest Income (including FV) and interest Rates on
All Reserves Invested with Arizona State Treasurer



Major Assumption

- Interest rates for funds invested with the Arizona State Treasurer will be an average of 2.3% in 2016 and 2017 based on approximately 15% short-term investments (under 1 year) and 85% longer term investments (2-5 years).



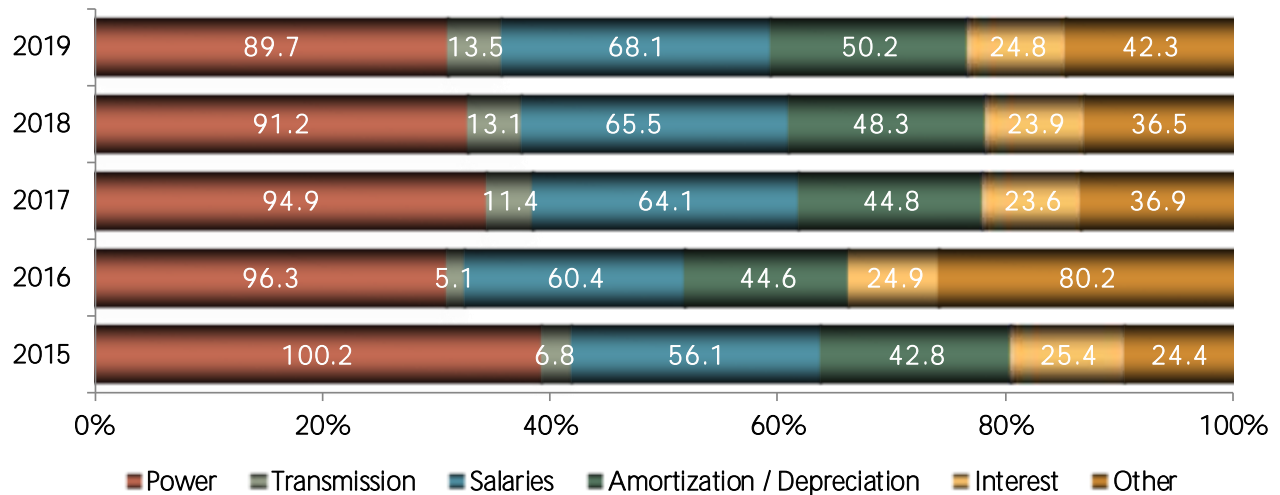
CAP Canal near check structure 34

DISTRICT EXPENSES

District expenses are categorized as either operating or non-operating expenses. Operating expenses include pumping power, salaries and related costs, amortization and depreciation, and other operating costs. Non-operating expenses are associated with interest expense on the federal repayment obligation. Pumping power is the District's most significant expense, accounting for approximately 32% of the 2018 / 2019 budget. The second largest expense is salaries and related costs, followed by amortization and depreciation, other operating costs, interest expense and transmission expenses.

Total Expenses

(Millions) - 100% scale



The 2018 expense budget is \$2.8 million higher than the 2017 projected expenses and the 2019 budget increases \$10.1 million over the 2018 budget. The major variances are shown below and will be discussed in the relevant expense sections that follow.

(Millions)	2017 Projection	2018 Budget	2019 Budget	18 vs 17 Incr/(Decr)	19 vs 18 Incr/(Decr)
Pumping Power	\$ 94.9	\$ 91.2	\$ 89.7	\$ (3.7)	\$ (1.5)
Transmission	11.4	13.1	13.5	1.7	0.4
Salaries & Related Costs	64.1	65.5	68.1	1.4	2.6
Amortization & Depreciation	44.8	48.3	50.2	3.5	1.9
Interest Expense	23.6	23.9	24.8	0.3	0.9
Other Costs	36.9	36.5	42.3	(0.4)	5.8
	\$ 275.7	\$ 278.5	\$ 288.6	\$ 2.8	\$ 10.1

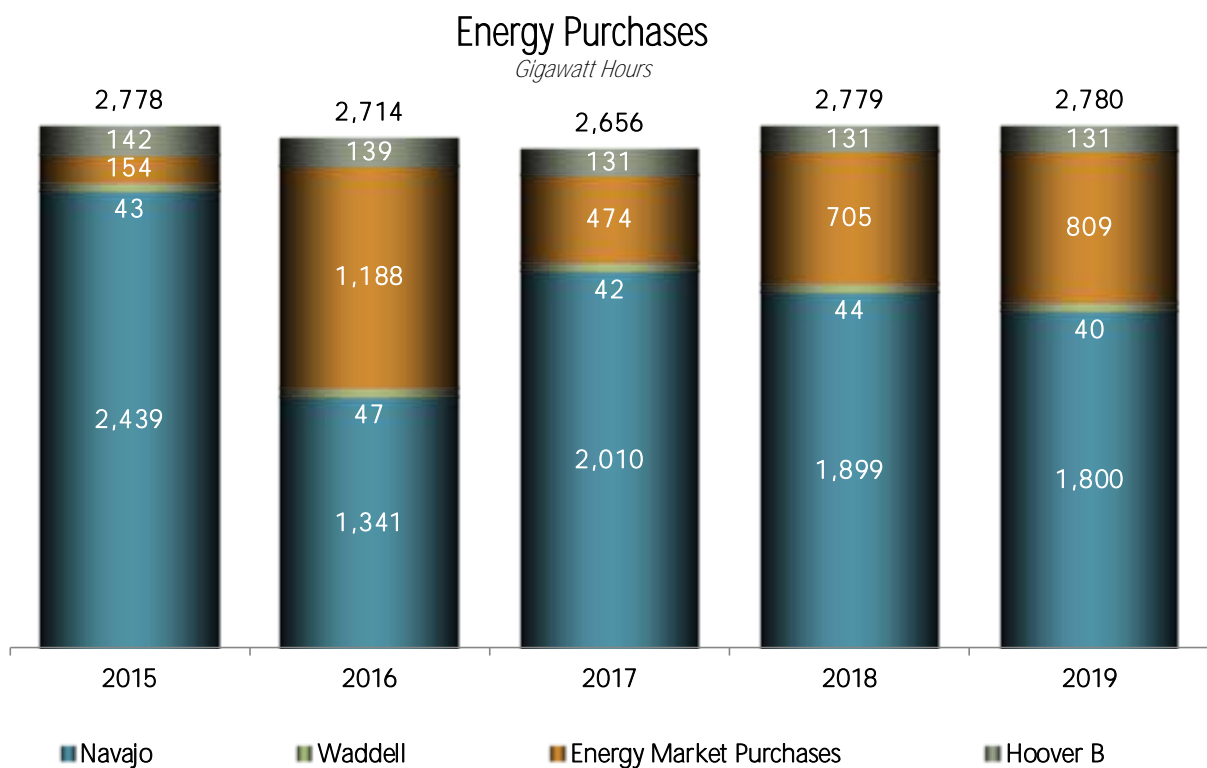
PUMPING POWER

The greatest variable affecting water delivery expenses is the cost of pumping power. 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 2,779 gigawatt hours (GWh) of energy in 2018 and 2,780 GWh in 2019 to meet the District's pumping needs.



Picacho Pumping Plant

The largest amount of the pumping energy will be purchased from NGS, followed by open market purchases and finally, a relatively small amount of Hoover B is available to CAP. CAP also receives about 1% to 2% of our energy as hydro electric power from Waddell Dam. Open market energy purchases have become a larger portion (25%-29%) of CAP's 2018 / 2019 energy budget, due to lower open market prices.



The District established an Energy Risk Oversight Committee (EROC) that acts as an advisory committee on a variety of power 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

Bringing energy products to market

Willingness to commit capital to secure new transmission

Major Assumptions

- NGS operating costs include fuel, maintenance costs, contractual inflation adjustments, regulatory requirements, a water supply contract and capital. Starting in 2017, the plant is being operated in anticipation of shutdown in 2019. Capital expenditures and major overhauls are being eliminated during the phase out period resulting in lower costs.
- 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 for inventory and reduces pumping power costs. Conversely, when water is released from the lake, water for inventory is decreased and pumping power costs are increased. A moderate downward Lake Pleasant adjustment is expected in 2018 / 2019.
- There will be \$500,000 of shaping or recovery revenues in the budget period.



Lake Pleasant — Waddell Dam — Visitor Center

TRANSMISSION

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

Major Assumptions

- CAP will secure firm transmission to insure reliability due to recent issues that have emerged.
- 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 487.3 full-time equivalent (FTE) positions. 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 2018 / 2019 budget from 2017 levels, though it is anticipated some vacant positions will be filled. Salaries and related costs are projected to increase slightly due to the filling of vacant positions, a shift of work from capital to operating projects and an average budgeted 3% salary increase, which has been estimated for each year 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 is evaluated on supporting the strategic objectives of CAP.

Although the departmental budgeted positions total more than this average, open positions and the lag time in filling those positions have created a vacancy savings equivalency of approximately 15 FTEs in recent years. Section 7, **Organizational Summary**, 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 salary and related 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.

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 2018 and 2019.
- Include depreciation of \$25.3 million for 2018 and \$27.2 million for 2019.

INTEREST EXPENSE

CAWCD pays interest on the federal repayment obligation. Debt service requirement on the federal repayment obligation is known and the amount required to pay interest expense will decline as the debt is reduced each year.

CAWCD issued Series 2016 bonds relating to transmission projects that have interest expense during 2018 and 2019. In addition, CAWCD anticipates issuing \$50 million of debt in June 2018 for CAGR water project acquisitions; interest on this debt begins in 2018. As the bonds were sold at a premium, there is also an annual amortization of the premium that decreases interest expense. In addition, accounting standards require that interest expense be capitalized as part of new projects, which reduces interest expense.

Major Assumptions

- Federal debt interest expense is \$22.3 million for 2018 and \$21.2 million for 2019.
- CAWCD bond interest expense is \$2.1 million for 2018 and \$2.1 million for 2019.
- CAGR bond interest expense is \$1.7 million for 2018 and \$2.6 million for 2019.
- CAWCD bond amortization is \$0.8 million for 2018 and \$0.8 million for 2019.
- Capitalized interest expense reduction is \$1.3 million for 2018 and \$0.1 million for 2019.

OTHER EXPENSES

This category represents the remainder of the District's operating expenses. Operating expenses include outside services, materials and supplies, CAGR water purchases and other business-related expenses (e.g., travel, training, medical, property and casualty insurance, rentals, overhead).

The main changes to Other Expenses include the non-recurring key initiatives such as the items below. Internal transactions from internal sales and expenses such as water that CAGR purchases and self-insurance expenses that the General Fund reimburses to the Captive Insurance Fund are eliminated at the consolidated level. Overall, recurring non-labor expenses are fairly consistent from year-to-year.

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

(Thousands)	2017 Projected	2018 Budget	2019 Budget
Colorado River programs-including pilot system conservation, weather modification & climate change research	\$ 669	\$ 1,558	\$ 1,558
Resource Planning- including recovery feasibility and demand	\$ 183	\$ 323	\$ 413
Pumping Plant Arc Flash Studies	\$ -	\$ 368	\$ 320
Board elections	\$ -	\$ 1,200	\$ -
Multi-Species Conservation Program (MSCP)	\$ 3,079	\$ 4,158	\$ 4,967

PUMPING PLANT ARC FLASH STUDIES

CAP completed its first full Arc Flash Study approximately 8 years ago. This work is dictated by OSHA and NFPA 70E, which requires employers to specifically define the electrical hazards that employees will encounter when engaged in electrical work in, or around, electrical panels and equipment. Recent changes in the OSHA regulations require that CAP extend this study to lower levels of the CAP electrical system within all facilities and modify the safety labels / information on the exterior of each electrical panel / equipment. In order to expedite this effort, we are outsourcing the data collection and some analysis to external consultants.

Associated with this effort, CAP will need to print, or have printed by an external provider, labels that comply with the standard and then have these labels applied to all equipment. In addition, CAP needs to provide Fire Resistant Clothing as part of the Arc Flash compliance effort.



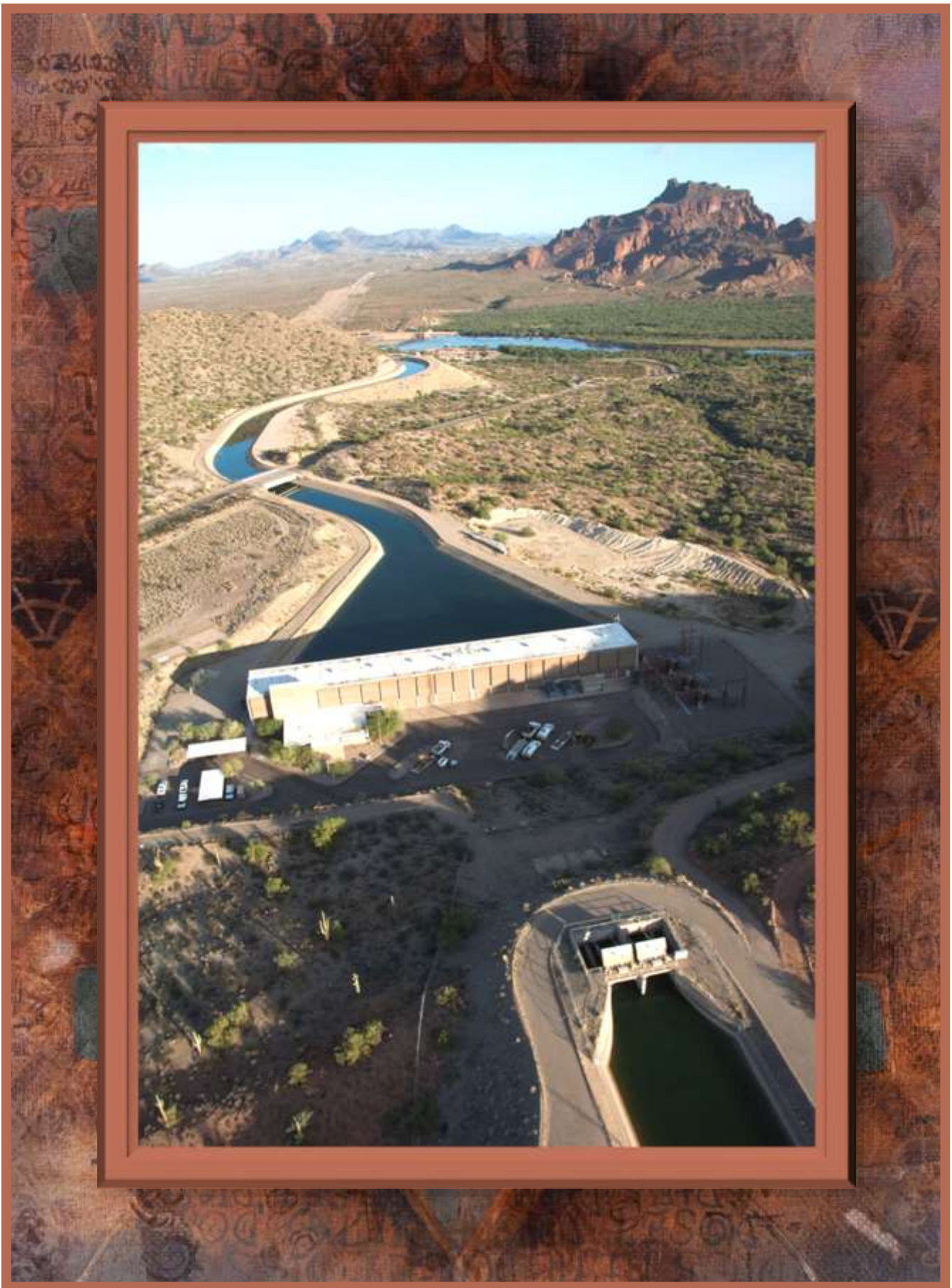
EXTRAORDINARY MAINTENANCE PROJECTS

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, which is “Big R”.

(Thousands)	2017 Projected	2018 Budget	2019 Budget
Manifold Relining at LHO & Hassayampa	\$ -	\$ 996	\$ 1,148
Siphon Repairs at Salt River	\$ -	\$ 324	\$ 6,844
Discharge Lines & Manifolds Recoat at Waddell	\$ -	\$ -	\$ 228
Steel Discharge Line Recoat—Mark Wilmer	\$ 5,371	\$ -	\$ -
Total	\$ 5,371	\$ 1,320	\$ 8,220

Major Assumptions

- Include key initiatives and items as indicated.
- Include the Extraordinary Maintenance Projects indicated.
- The General Fund’s budget will include amounts to fund activities that support the Integrated Strategic Plan.
- The General Fund’s budget will include amounts for proper maintenance of facilities and equipment.
- The CAGRD fund 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.



Salt Gila Pumping Plant

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 CIP 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 that is used to determine whether major maintenance efforts should be capitalized as additions or improvements, or expensed as repairs. Depreciation on capital assets is included in the General Fund.

Due to a decision to shift some resources from capital projects to needed maintenance activities, CAWCD is experiencing a decrease in overall capital expenditures. Expenditures for capital equipment have increased as major pieces of 25 plus year-old equipment are in need of replacement, while expenditures related to the CIP are decreasing as shown in the following table:

(Millions)	Equipment	Capital Projects	Total
2015	\$3.5	\$46.2	\$49.7
2016	5.7	32.9	38.6
2017	2.5	38.7	41.2
2018	4.3	33.3	37.6
2019	4.1	19.0	23.1

New projects scheduled to start during the 2018 / 2019 budget period include:

- Fire Protection CO2 Modification at Waddell
- Elevator System Replacement Phase 2
- Unit Breaker Replacement at Picacho & Red Rock

Major ongoing projects include:

- Transmission Line Hassayampa Tap and Transmission Line ED2-Saguaro
- Condition-Based Monitoring
- Discharge Valve Replacements
- Electromechanical Relay Replacement Phase 1

Major projects that are scheduled to be completed in the 2018 / 2019 budget period include:

- Transmission Line APS
- Bus Disconnect Switch Replacement at Bouse, Little Harquahala & Hassayampa
- Industrial Water Treatment at Brady, Picacho & Red Rock

Major Assumptions

- Projects must be approved by the Project Steering Committee (PSC).
- Projects must support CAP's strategic plan.
- 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.



Transmission Lines

SELECTED FINANCIAL DATA

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION All Funds

(Millions)

	2015	2016	2017	2018	2019
	Actual	Actual	Projection	Budget	Budget
Operating Revenues	\$ 233.0	\$ 230.1	\$ 273.9	\$ 299.9	\$ 309.1
Operating Expenses	(230.3)	(286.6)	(252.1)	(254.6)	(263.8)
Operating Income/(loss)	2.7	(56.5)	21.8	45.3	45.3
Non-Operating Revenues	63.9	70.0	56.0	77.9	83.1
Non-Operating Expenses	(25.4)	(24.9)	(23.6)	(23.9)	(24.8)
Total Non-operating Revenues/(Losses)	38.5	45.1	32.4	54.0	58.3
Change in Net Position	41.2	(11.4)	54.2	99.3	103.6
Net Position at Beginning of Period	566.7	607.9	596.5	650.7	750.0
Net Position at End of Period	\$ 607.9	\$ 596.5	\$ 650.7	\$ 750.0	\$ 853.6



NET POSITION

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. Other significant assets include CAWCD's restricted and unrestricted reserves and investments; other significant liabilities include agricultural debt and accrued interest payable.

In connection with the Arizona Water Settlements Act (AWSA), CAWCD is liable for \$88.7 million in non-interest bearing agricultural debt and have an Ag water allocation right for 96,295 acre-feet of NIA water. This water will be reassigned by the ADWR to M&I users, beginning in 2017 and will include a 9(d) repayment commitment that will be deposited into a reserve for the payment.

	2015	2016	2017	2018	2019
	Actual	Actual	Projection	Budget	Budget
Assets					
Cash and investments	\$ 341.4	\$ 372.0	\$ 392.0	\$ 399.4	\$ 462.7
Receivables	47.8	53.7	52.7	58.1	53.8
Water inventory	83.7	96.2	112.9	117.7	124.7
Capital assets					
Operating assets, Net	249.9	267.7	287.0	335.8	340.0
Permanent service right, net	1,158.3	1,135.3	1,112.3	1,089.3	1,066.3
Agricultural water allocation	88.7	88.7	88.7	88.7	88.7
Inventory and other	114.3	140.4	127.1	183.1	180.6
Total Assets	2,084.1	2,154.0	2,172.7	2,272.1	2,316.8
Deferred Outflow of Resources					
Pension Valuation	6.0	12.2	13.2	12.2	12.2
Total Deferred Outflow of Resources	6.0	12.2	13.2	12.2	12.2
Total Assets & Deferred Outflow of Resources	\$ 2,090.1	\$ 2,166.2	\$ 2,185.9	\$ 2,284.3	\$ 2,329.0
Liabilities					
Repayment obligation	\$ 31.4	\$ 31.4	\$ 1.5	\$ 32.9	\$ 32.9
Bonds	-	53.5	82.7	103.1	100.7
Non-Indian agriculture 9(d) debt	88.7	88.7	88.7	88.7	88.7
Other liabilities	1,330.9	1,357.0	1,321.8	1,269.5	1,213.0
Total Liabilities	1,451.0	1,530.6	1,494.7	1,494.2	1,435.3
Deferred Inflow					
Customer deposits	23.5	28.8	30.2	29.7	29.8
Pension Valuation	7.7	10.4	10.4	10.4	10.4
Total Deferred Inflow	31.2	39.2	40.6	40.1	40.2
Net Position					
Investment in Capital Assets, less related debt	235.8	231.4	238.3	299.3	315.8
Restricted	78.8	79.1	93.7	150.5	157.8
Unrestricted	293.3	285.9	318.6	300.2	379.9
Total Net Position	607.9	596.4	650.6	750.0	853.5
Total Liabilities, Def Inflows & Net Position	\$ 2,090.1	\$ 2,166.2	\$ 2,185.9	\$ 2,284.3	\$ 2,329.0

TOTAL REVENUES

(Millions)

	2015	2016	2017	2018	2019
	Actual	Actual	Projection	Budget	Budget
General Fund Operating					
Water O&M charges	\$ 171.1	\$ 175.9	\$ 198.7	\$ 208.1	\$ 210.7
Water service capital charges	16.6	17.0	21.2	30.5	31.8
Power & BDF revenues	22.3	15.1	25.5	26.2	28.6
Other revenue	1.8	1.7	1.9	1.8	1.9
Total General Fund Operating	211.8	209.7	247.3	266.6	273.0
General Fund Non-operating					
Property taxes	60.3	64.6	49.5	70.7	74.0
Interest and other	3.3	5.1	5.9	6.6	8.0
Total General Fund Non-operating	63.6	69.7	55.4	77.3	82.0
General Fund Total	275.4	279.4	302.7	343.9	355.0
Other Funds and Accounts					
CAGRD	29.9	30.4	33.9	39.7	43.1
Supplemental Water	0.1	0.1	0.1	0.1	0.2
Captive Insurance	8.2	8.4	8.8	9.3	9.7
Eliminations	(16.7)	(18.2)	(15.6)	(15.2)	(15.8)
Total Revenue	\$ 296.9	\$ 300.1	\$ 329.9	\$ 377.8	\$ 392.2

All Funds by Revenue Type (net of elims)

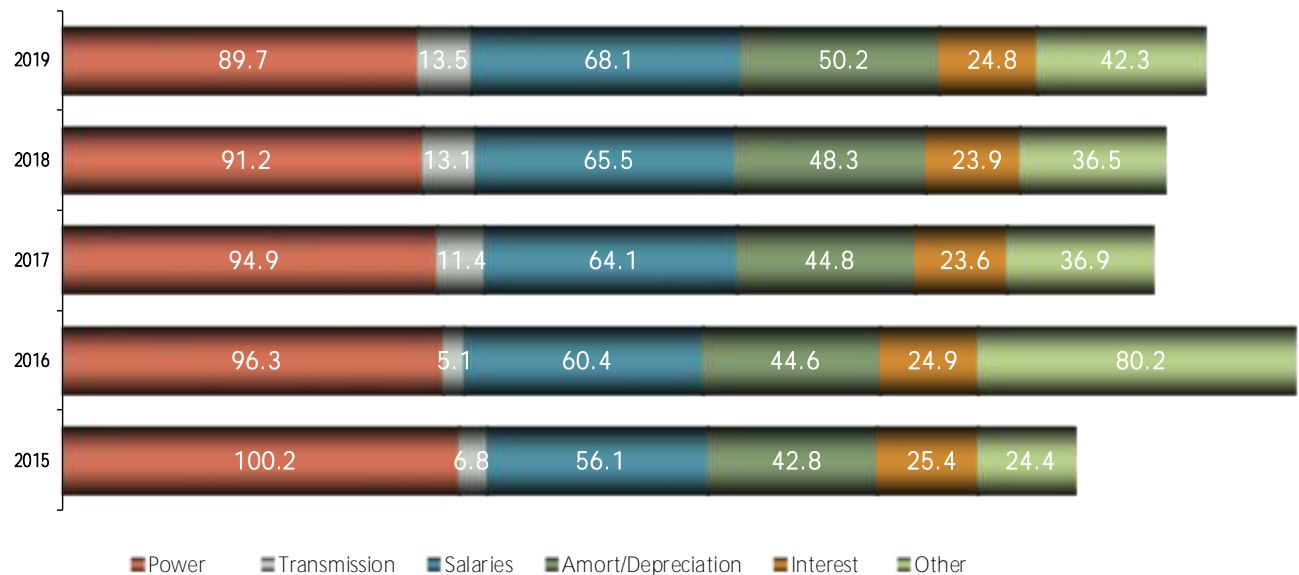


TOTAL EXPENSES

(Millions)

	2015	2016	2017	2018	2019
	Actual	Actual	Projection	Budget	Budget
General Fund Operating					
Pumping power	\$ 100.2	\$ 96.3	\$ 94.9	\$ 91.2	\$ 89.7
Transmission	6.8	5.1	11.4	13.1	13.5
Salaries and related costs	55.2	59.4	63.0	64.4	67.0
Amortization and depreciation	42.8	44.6	44.9	48.3	50.2
Other expenses	23.4	82.5	33.8	32.8	38.5
Total General Fund Operating	228.4	287.9	248.0	249.8	258.9
General Fund Non-operating					
Interest and other	25.5	24.9	23.6	22.2	22.3
Total General Fund Non-operating	25.5	24.9	23.6	22.2	22.3
General Fund Total	253.9	312.8	271.6	272.0	281.2
Other Funds and Accounts					
CAGRD	9.5	9.2	10.5	12.4	13.6
Supplemental Water	-	-	-	-	-
Captive Insurance	9.0	7.7	9.2	9.3	9.6
Eliminations	(16.7)	(18.2)	(15.6)	(15.2)	(15.8)
Total Expenses	\$ 255.7	\$ 311.5	\$ 275.7	\$ 278.5	\$ 288.6

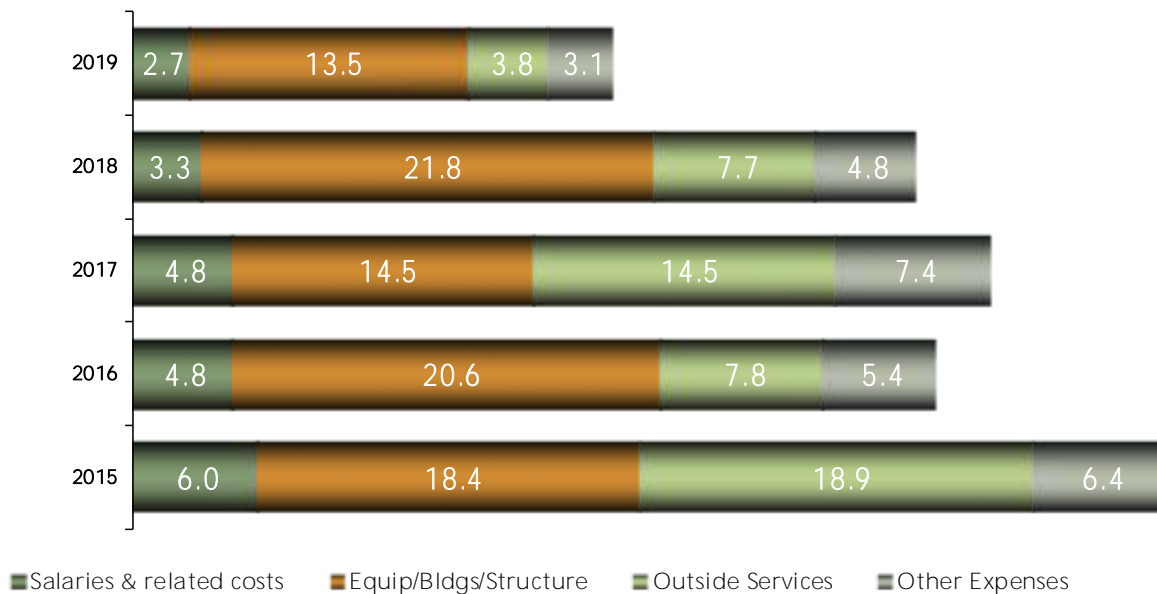
All Funds by Expense Type (net of elims)



CAPITAL EXPENDITURES

(Millions)

	2015	2016	2017	2018	2019
	Actual	Actual	Projection	Budget	Budget
Salaries and related costs	\$ 6.0	\$ 4.8	\$ 4.8	\$ 3.3	\$ 2.7
Equipment, buildings, and structures	18.4	20.6	14.5	21.8	13.5
Outside services	18.9	7.8	14.5	7.7	3.8
Materials, supplies & other expenses	0.5	0.5	0.5	0.2	0.1
Capitalized Interest	-	-	2.0	1.3	0.2
Overhead expenses	5.9	4.9	4.9	3.3	2.8
Total Capital	<u>\$ 49.7</u>	<u>\$ 38.6</u>	<u>\$ 41.2</u>	<u>\$ 37.6</u>	<u>\$ 23.1</u>



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 4-15 through 4-18). 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 CAGRDR reserves, and consequently does not result in an associated increase in strategic reserves.

In 2016 as part of its biennial review of strategic targets, the Board revised its strategic reserve targets to \$222.0 million from the previous target of \$221 million. A review will be conducted in 2018 and the target may be adjusted as appropriate.

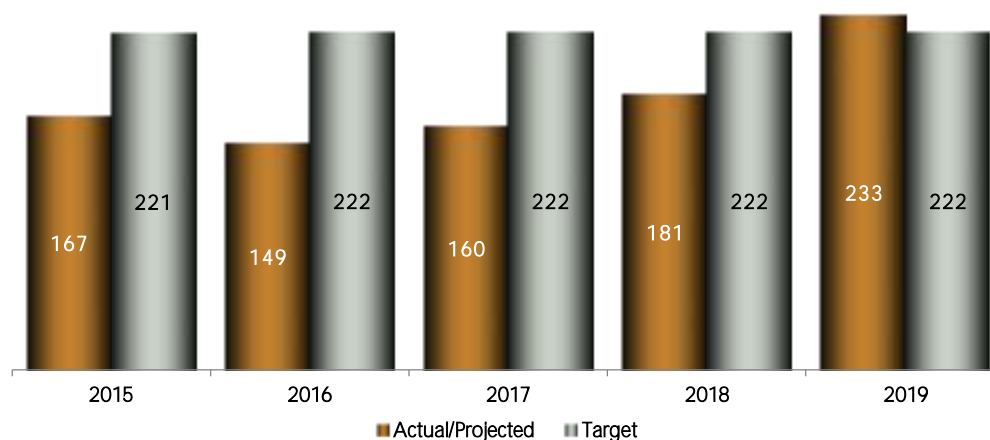
Water rates and other charges are set in such a way as to allow CAWCD to cover its costs and maintain adequate reserve level. As it is impossible to precisely break even every year due to the uncertainties associated with actual water deliveries and the fact that rates are set ahead of time, strategic 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 below target at \$181 million for 2018 and above target at \$233 million in 2019. Strategic reserves have been below target for two main reasons. The first was that the cost of the Ag Consideration and Ag Incentive programs was above the taxes collected, which are the funding source for the programs. The second was that the cash make-up on the federal debt repayment was more than the capital charges collected. In both of these cases, shortfalls are made up out of strategic reserves. Presently, both of these shortfalls have been addressed and the strain on strategic reserves has been eliminated. Following are the main drivers for the gradual increase in strategic reserves:

- Reduced tax proceeds dedicated to the Extraordinary Cost Reserve to \$.025 from \$.04 per assessed valuation
- Directing the \$.015 to strategic reserves starting in 2016
- Using \$.02 from the Water Storage tax for the Ag Consideration Program in tax year 2017 / 2018
- A reduction in capital expenditures compared to the "Big R" rate collected
- Elimination of advance energy payments in 2019

Strategic Reserves

(\$ Millions)



CAWCD STRATEGIC DEVELOPMENT TIMELINE

INTRODUCTION & HISTORY

1996 Published 1st Strategic Plan

1996

1999 Designed 1st Balanced Scorecard

1999

2002 Defined Strategic Framework Map

2002

2004 Adopted a 2-year Planning Cycle

2004

2006 Adopted 2006 Strategic Plan

2006

2010 Adopted 2010 Strategic Plan

2010

2011 Developed 2011 CAP Integrated Strategic Plan

2011

2012 Introduced "Big 5" Organization-wide Goals

2012

2013 Identified Guiding Principles

2013

2016 Adopted 2016 Strategic Plan

2016

2017 Developed Integrated Plan linking Board Strategic Plan to Internal Business Plan

2017

For more than two decades, the Central Arizona Water Conservation District (CAWCD or District) 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. One year later, Central Arizona Project (CAP) published its first Business Plan, which reported accomplishments against the Strategic Plan and identified additional objectives for the upcoming year. The Strategic Plan was updated in 1997 and by 1999, CAP had designed its first Balanced Scorecard, which provided a means to measure the degree to which the strategic objectives were being accomplished. Several designs were explored as the Strategic Plan was redeveloped.

By the turn of the decade, CAP's business planning, reporting and measurement were becoming more sophisticated. In 2000, CAP's Budget and Business Plan were integrated into a single document which allowed individual departments to begin incorporating performance goals, objectives and measures into their planning processes. In 2001 the Balanced

Scorecard began to coalesce around various "Key Result Areas" (KRAs). The KRAs were organized into a Strategic Framework Map, incorporating individual strategies beneath each KRA.

Although previous budgets had included reporting of accomplishments, strategic objectives and performance measures, the Balanced Scorecard first appeared in the 2003 budget. In late 2004, the Board adopted a 2-year planning cycle in order to allow more time for long-range and strategic planning. During odd years, 2-year budgets and business plans would be completed and, during even years, long-range financial plans (LRFP), water rates and strategic plans were to be addressed.

This Strategic Framework Map and the associated Balanced Scorecard, with certain improvements and revisions, remained in place through 2006, but the Board and

management had already started to feel a need to build a new Strategic Plan from the ground up. Consequently, following a series of retreats and work/study sessions, the Board updated CAWCD's Mission Statement and Values, and together with staff, developed a new Strategic Framework Map, which reflected many of the previous themes.

A new Balanced Scorecard to correspond to the 2006 Strategic Plan followed in 2007. The 2007 scorecard continued in use through 2010, with minor modifications. In 2009 and early 2010, the Board once again updated CAP's Strategic Plan. As in earlier incarnations, the Strategic Framework Map was modified to reflect the Board's priorities. This revision merged certain KRAs: Leadership and Public Trust, Finance, Project Reliability, Water Supply, Power and Replenishment. The 2010 CAWCD Board of Directors Strategic Plan was published in February 2010 with ninety-nine individual Action Plans. However, unlike previous updates of the Strategic Plan, this plan required significantly more work and became a much longer-lasting strategic guide.

Additionally, during 2010, CAP undertook two comprehensive studies, an Enterprise Management Assessment and a Maintenance Organization Assessment. It also hosted a series of management meetings, focus groups and employee workshops. The efforts from the two studies and the expanded strategic planning exercise were closely coordinated and cross-validated to produce the 2011 CAP Integrated Strategic Plan - a merger of the 2010 Strategic Plan and additional, tactical and strategic staff-driven efforts.

In 2011, the Balanced Scorecard was retired, and the Strategic Plan itself began to be used to track and manage strategic initiatives, objectives and accomplishments. Another significant measurement milestone evolved from the Strategic Plan in 2012: The "Big 5." The "Big 5" are organization-wide objectives which CAP introduced in conjunction with its modest but first organization-wide incentive compensation program tied to the accomplishment of these objectives.



In 2015, a Board Strategic Planning Task Force was formed to provide suggested updates to the 2010 Strategic Plan. The Board also held a Strategic Planning Retreat that year. In 2016, the Board completed and approved a comprehensive update of the 2010 Strategic Plan. The 2016 CAWCD Board of Directors Strategic Plan (2016 Strategic Plan) retained the same overall structure with Key Result Areas, supported by Strategic Issues, Strategic Objectives and Action Plans.

In 2017, as part of the two-year budget process, staff closed out the 2011 Integrated Strategic Plan and linked the 2016 Strategic Plan to the 2018 / 2019 Business Plan. This process allows staff to ensure that organizational goals and efforts are consistent with the strategic direction provided by the Board. Achievements and their connections to the Strategic Plan will be provided to the Board on a recurring basis.

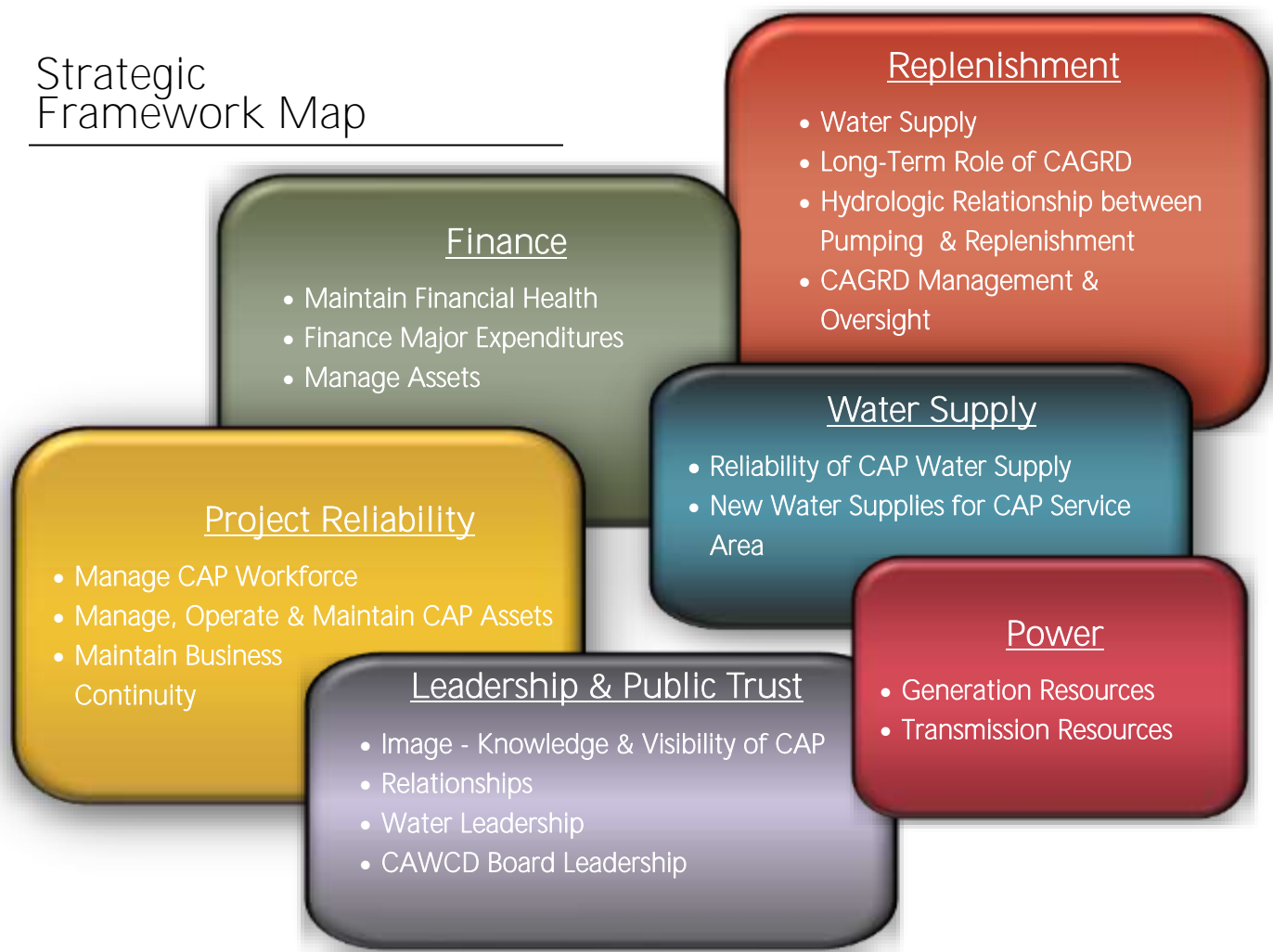
STRATEGIC FRAMEWORK

The 2016 Strategic Plan represents the fifth generation of the Strategic Plan. As with prior versions of the plan, the 2016 Strategic Plan is organized around several KRAs. Under each KRA, important strategic issues have been identified, along with strategic objectives associated with each strategic issue and the action plans necessary to achieve each result. This hierarchy of issues, objectives and action plans is referred to as the CAP Strategic Framework, and it serves as the context for many other planning activities at CAP, not the least of which are the Biennial Budget and the “Big 5” Organization-Wide Objectives.

The 2016 Strategic Plan includes the following KRAs:

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

Strategic Framework Map



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. The plan includes a number of action plans that support these strategic issues.

Finance

Coordination of numerous and complex financial strategies, programs and 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 Water Supply, Replenishment, Power and Project Reliability, 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 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, and exploring alternatives to protect and enhance the existing Colorado River supply and mitigate regulatory and environmental threats to the supply.

A prolonged drought in the Colorado River basin persists, and the most recent forecasts by the Bureau of Reclamation (BOR) indicate that a shortage may be declared as early as 2019. Arizona

has joined with other lower basin states and water users in the upper basin in an effort to forestall a shortage declaration through voluntary efforts to conserve water for the benefit of the entire river system.

The 2016 Strategic Plan also includes actions that advance the use of the CAP system for purposes other than delivery of project water. The development and implementation of the System Use Agreement provides the legal framework to transfer, wheel and recover water supplies using the CAP infrastructure. This agreement also allows for bringing new water supplies into the CAP service area.

While the initial anticipated shortage will not impact municipal and industrial (M&I) or Indian long-term contract deliveries, staff continues work to prepare for implementing CAP's recovery plan in cooperation with the Arizona Water Banking Authority (AWBA) and other stakeholders in order to respond to deeper shortages that will likely occur in the future.

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.

It takes over 2.9 million megawatt hours (MWh) of energy each year to pump CAP's Colorado River apportionment into its service area. Currently, more than 90% of this energy comes from the Navajo Generating Station (NGS), a coal-fired power plant on the Navajo Nation. The remainder of energy comes from the Hoover and New Waddell dams and market purchases.

With the acceptance of the Best Available Retrofit Technology (BART) Rule for the NGS and the completion of the associated litigation, the primary threat to the continued operation of the power plant seemed to be successfully abated. However, a significant upheaval in the power pricing arena made the production of coal-based power more expensive than other fossil fuel alternatives. This development has led the private owners of NGS to institute a plan to shut down and decommission the power plant by the end of 2019.

The 2016 Strategic Plan identified the need to prepare for eventual replacement of the NGS through implementation of the post-NGS power strategy and the Board empaneled a Power Task Force to monitor current energy issues, review alternative power sources and develop power strategies for CAP's future needs. The Board continues to actively monitor and promote CAP's interests related to securing reliable power resources.

Replenishment

In accordance with legislation passed in 1993, Central Arizona Groundwater Replenishment District (CAGRD), which is 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. In August 2015, the Arizona Department of Water Resources (ADWR) approved the 2015 CAGRD Plan of Operation. The plan identifies approximately 37,000 acre-feet annually of current CAGRD water supplies, slightly more than CAGRD's current annual obligation. However, some of these water supplies are subject to curtailment during Colorado River shortage. In addition, CAGRD membership is expected to continue to grow, with the annual replenishment obligation reaching approximately 87,000 acre-feet by 2034. For these reasons CAGRD must continue to acquire new water supplies to meet its future replenishment obligation.

STRATEGIC PLAN KEY RESULT AREAS

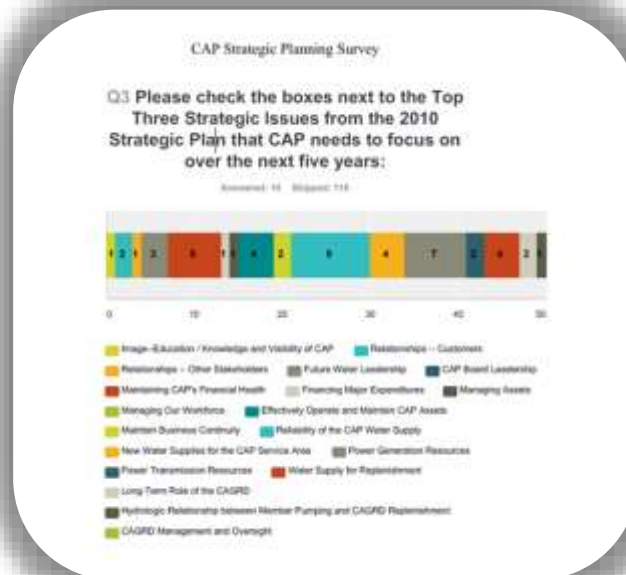


STRATEGIC PLAN

As part of the regular Strategic Plan review and updating process, the Board of Directors approved a revised Strategic Plan in 2016.

The inception of the 2016 Strategic Plan was in the Board's Strategic Plan published in February 2010, which was the result of updating the 2006 Board Plan.

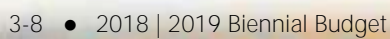
In 2015, the Board created a Strategic Planning Task Force and held a strategic planning retreat to develop a road map and recommendations for updating the 2010 Board Plan. A stakeholder survey was conducted to collect the observations and opinions of the Board, staff, subcontractors and other significant stakeholders. The results of the survey helped define the areas in which CAP would achieve its strategic planning goals and where additional efforts were needed.



More specifically, the 2016 Strategic Plan modified, deleted and added new strategic objectives, strategic issues and action plans in response to the progress made, new issues or concerns since the last plan update, and changes in external factors impacting CAP.

The 2016 Strategic Plan provides a comprehensive document for ensuring that CAP priorities, processes and activities within the six Key Result Areas are informed and guided by the strategic objectives of the Board of Directors. The CAP Business Plan (included in the 2018 / 2019 Budget) illustrates how CAP's activities reflect items within the 2016 Strategic Plan.

A tabular presentation of the 2016 Strategic Plan follows.



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
F I N A N C E	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	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
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
W A T E R S U P P L Y	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
W A T E R S U P P L Y	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
P O W E R	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 will 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
R E P L E N I S H M E N T	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

PERFORMANCE MEASURES

“BIG 5”

ORGANIZATION-WIDE GOALS

One of the Action Plans in the 2011 Integrated Strategic Plan 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.

As the Strategic Plan itself began to be used 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 ownership for their accomplishment.

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.

Highlighting the 2016 “Big 5” success was achievement of one of the most important goals set for CAP: Meet the Protection Volume goal, which conserved a predetermined volume of water in Lake Mead to help defer a potential shortage declaration. In 2016 a goal was set at 180,000, but this was exceeded by a conserved 193,875 acre-feet. The 2016 budget compliance goal was also met by not



only successfully meeting the financial target, but by completing planned work. Additionally, CAP met the Project Reliability objectives of managing overtime hours and minimizing forced outages. Once again, results showed that CAP employees have been good stewards of their own personal health and safety as evidenced by more than 92% participation in health and safety classes and training during CAP's Safety Week. CAP's recycling program also did well with a 93% compliance result.

The full year 2016 edition of the "Big 5" Organization-Wide Goals is shown on the following diagram.



For 2017, while many of CAP’s goals remained the same, there are a few that changed, plus a new goal for management. CAP will continue with “Big 5” goals related to water delivery and protecting Lake Mead; the targets for 2017 are 1,452,031 acre-feet for water deliveries and 185,000 acre-feet for protection volume.

CAP’s financial goal for 2017 remains the same, completing planned work within 95-102% of budget.

In regards to Project Reliability goals, minimizing forced outages (FOX) continues, but the overtime management goal has been replaced with compliance of outage work plans and schedules.

Although the DART statistic (a safety metric for lost time) to Arizona Division of Occupational Safety and Health (ADOSH) continues to be tracked and reported internally, it has been replaced with a goal to complete 90% of required safety and health training during the year.

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 emphasize this, a goal has been set to challenge all managers and directors to complete two in-field visits to departments in an area that is not under their area of management to share information about new developments or ongoing projects.

The 2017 edition of the “Big 5” Organization-Wide Goals is shown below, and the midyear 2017 “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 RELIABILITY 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



2017 DIVERSIONS

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 "Protection Volume" is the acre-feet to be left in Lake Mead during 2017.

For 2017 the Customer Delivery Target is 1,452,031 acre-feet, with a Protection Volume target of 185,000 acre-feet.

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: 1,452,031 in Water Management System (WMS) based on 2017 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.

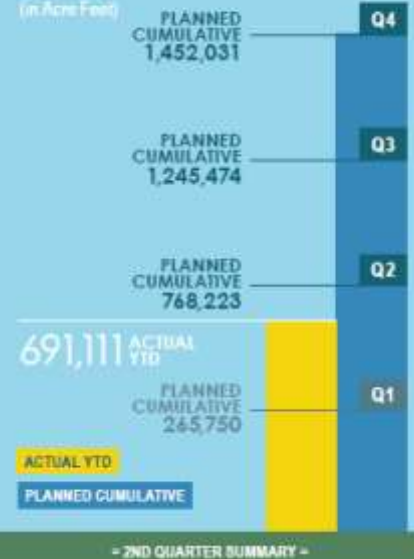
The "Protection Volume" is measured at year end.

Final Protection Volume of 185,000 represents all of CAP Forbearance requirements for the Pilot System Conservation Program, and the United States Bureau of Reclamation efforts. Plan by quarter will be updated prior to distribution of first quarter results.

OPTIMIZE:

WATER DELIVERIES

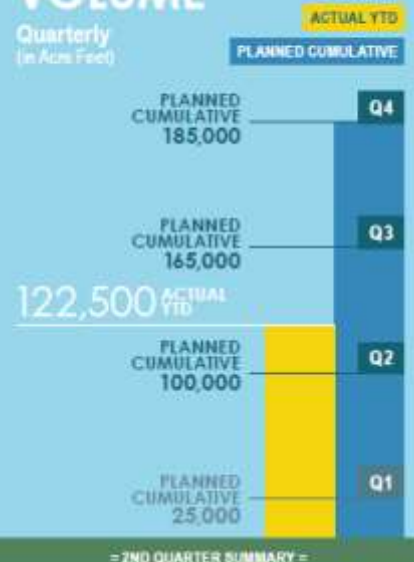
Quarterly
(in Acre Feet)



OPTIMIZE:

PROTECTION VOLUME

Quarterly
(in Acre Feet)





2017 INFRASTRUCTURE

MAINTAIN

AND IMPROVE THE LONG-TERM RELIABILITY 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 a measure of the reliability of CAP's 109 main unit pumps. This goal is also 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 2017 the Outage Compliance goal is to meet or exceed 85% 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 Preventative Maintenance (PM's), etc. Finished work must be moved to the completed status within 30 days following the outage.

MAINTAIN:

MAINTAIN & IMPROVE RELIABILITY

Meet or exceed completion rate for seasonal outage work orders.

85%*
COMPLETION
GOAL

ACTUAL YTD

YTD GOAL

*no scheduled outages for Q1 and Q2; results will not be shown until Q3 and Q4.

= 2ND QUARTER SUMMARY =

MAINTAIN:

FORCED OUTAGES (FOX) RATIO

0.5%
YTD AVERAGE

Maintain average annual forced outage ratio at 2.0% or less.

ACTUAL YTD

PLANNED CUMULATIVE

0.5% QTR 2 AVERAGE YTD

= 2ND QUARTER SUMMARY =



2017 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 2017 the goal for Required Safety and Health Training is 90% 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.

INCREASE SAFETY:

PREVENTABLE VEHICLE & EQUIPMENT ACCIDENTS (PVA)

Not to exceed 8 PVA annually



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.

INCREASE SAFETY:

REQUIRED SAFETY TRAINING

1,642
COURSES
ACTUAL YTD

90% of required safety and health training is completed by the end of the year.





2017 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 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.



CONTROL:

COST CONTROL

Both annual operating expenses and capital expenditures no more than 2% over or less than 5% under budget.
(\$ in thousands)

-2%
UNDER PLANNED
BUDGET YTD

	ACTUAL YTD	PLANNED CUMULATIVE	VARIABLE %
Q1	\$25,138	\$27,400	-8%
Q2	\$56,713	\$58,101	-2%
Q3		\$91,993	
Q4		\$121,772	

• 2ND QUARTER SUMMARY •

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



2017 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 2017 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

*program initiated in Q2; results expected in Q3 and Q4.

3%
PARTICIPATION
YTD

	ACTUAL YTD	PLANNED CUMULATIVE
Q1	0%	95%
Q2	3%	95%
Q3		95%
Q4		95%

• 2ND QUARTER SUMMARY •



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 PROCESS

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.

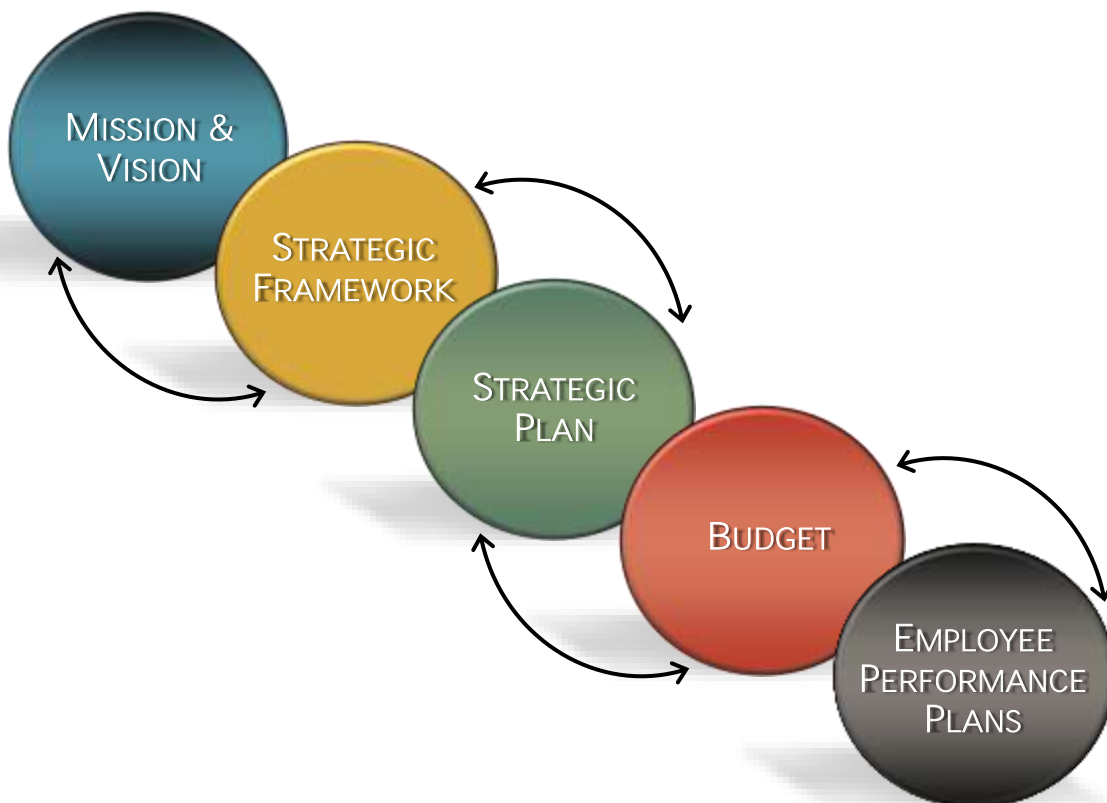
PROCESS, PROCEDURES AND CONTROLS

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.

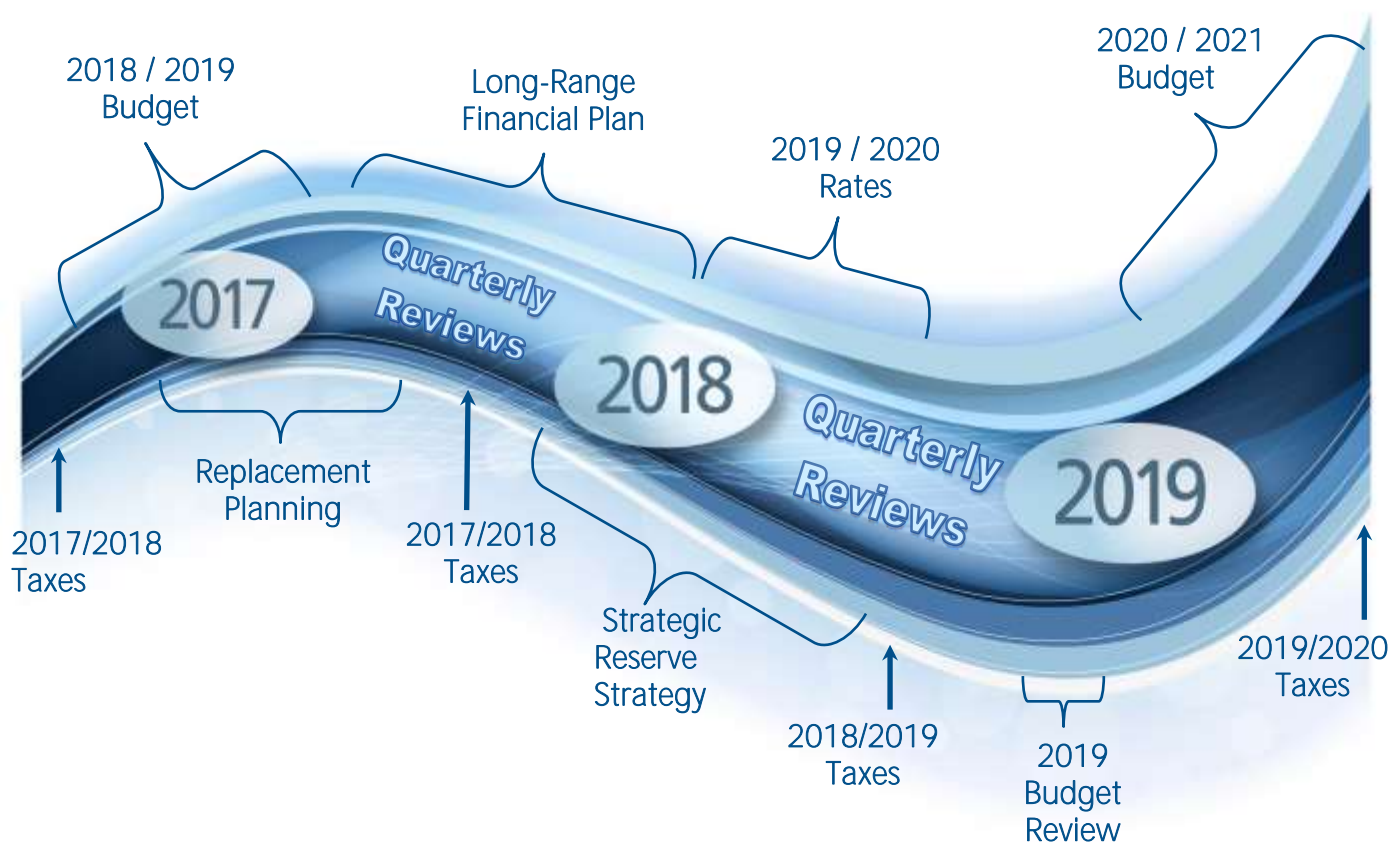
The budget document includes both the business plans for the budget period as well as the financial and human resources necessary to achieve the goals and objectives identified in the business plans.

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



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 (see page 4-7). The financial planning process is illustrated on the following diagram:



The 2018 / 2019 biennial budget covers two one-year periods. As the first year (2018) draws to a close, the second year (2019) 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 4-6.

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. The basis of budgeting and accounting are discussed in more detail on page 8-30.

All financial statements contained in the budget are presented on a comparative basis, including two years of actual activity for 2015 and 2016, quarterly financial projection for 2017 and two years of budget activity for 2018 and 2019. 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, if any. The Statements 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 2018 / 2019 budget process began in March 2017 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, cost centers develop a six-year capital budget, two budget years and four advisory years, that includes capital projects and a forecast of capital equipment needs.

Cost centers develop their operating and capital budgets 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 of Directors (Board) occurs in October and November.

Following approval of the 2018 / 2019 budget, staff will begin work on the next LRFP, incorporating any new strategies, objectives and trends identified during the budget process. Staff will evaluate longer-term issues and 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

2018 / 2019 BUDGET CYCLE	REQUESTED BUDGET	April-May 2017	Departments develop and submit Strategic Plans
		June-August 2017	Cost centers develop budget and submit to Finance for review & consolidation
		August 16-September 15, 2017	General Manager review & changes CAWCD Board Officers’ review
	STAFF PROPOSED BUDGET	October 2, 2017	Consolidate & mail budget
		October 12, 2017	Stakeholder workshop to review budget
	COMMITTEE RECOMMENDED BUDGET	October 24, 2017	Finance, Audit & Power committee meeting Review budget & make recommendation to Board
	BOARD APPROVED BUDGET	November 2, 2017	Board of Directors review & approval of budget
LONG-RANGE PLANNING CYCLE	LONG-RANGE FINANCIAL PLAN	December 2017	Identify strategic issues
		January-March 2018	Analyze strategic issues, develop LRFP, Reserve Plan & Preliminary 2019 / 2020 rate schedule
		April 12, 2018	Customer workshop to review Preliminary 2019 / 2020 rates
	RATE-SETTING RESERVE PLANNING	April 19, 2018	Finance, Audit & Power Committee review of Preliminary 2019 / 2020 rates & reserve strategy
		May 3, 2018	Board of Directors adopt Preliminary 2019 / 2020 rates & reserve strategy
		June 7, 2018	Board of Directors approve Final 2019 / 2020 rates & reserve strategy
2019 BUDGET AMENDMENT		August 2018	Finance develops 2019 budget review and amendment (as necessary)
		October 2018	Finance, Audit & Power Committee review 2019 budget amendment and recommend update (as necessary)
		November 2018	Board of Directors review & approval of 2019 budget amendment (as necessary)
		November 2018	Distribution of 2019 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 communicated to cost centers to develop the 2018 / 2019 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, power and transmission are excluded from this process and administered by an Energy Risk Oversight Committee.
- Central Arizona Groundwater Replenishment District (CAGR) 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 a 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 2019), 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.

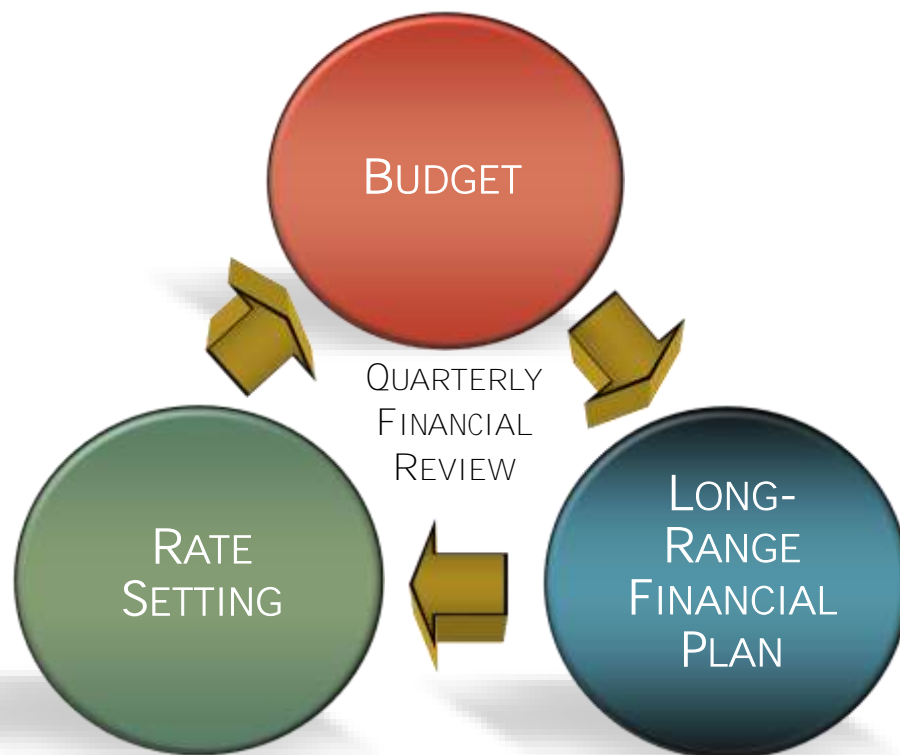
During each budget year, if the GM's budget authority is exceeded, the Board may be asked to either approve additional spending authority or to waive the variance authority on a particular budget line item. Such items do not constitute amendments to the budget, but authorization to exceed the budget. 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 incorporate and refine 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.

The LRFP is updated every other year in even years, incorporating 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, electricity 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., 2019), provisional rates for the next year (i.e., 2020) and advisory rates for the subsequent four years (i.e., 2021-2024). CAP communicates preliminary firm, provisional and advisory rates through customer workshops, 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 2018 rates were reviewed and revised in 2017.

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	CAP seeks to maximize the economic benefit from the use of water it supplies by making excess water available for direct uses and storage activities within its service area
	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 power 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 power. 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 and in more recent years, conserved in programs. If actual deliveries fluctuate from the estimate used to set rates, water delivery revenues and pumping power 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 4-10 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 will allow the accumulation of approximately \$30 million in a rate stabilization reserve by the end of 2018. 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 three years, rather than all at once. The rate stabilization fund can also serve as a method to reconcile rates annually.

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 subcontract and federal customers. Shortage mitigation and forbearance programs decrease the water delivery volumes and causes the Fixed OM&R rate to increase.

CAPITAL CHARGES

Long-term 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, CAGR 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 is combined with other revenue sources, as described in Repayment Obligation on page 4-14, 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, 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 federal 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 CAGR that are not included in the Strategic Reserve planning. See Fund Reserves beginning on page 4-15 for a more detailed description.

The Board reviewed and updated the Reserve Strategy in March 2016.





CAP Canal near Picacho Peak

DEBT AUTHORITIES & OBLIGATIONS

BONDING AUTHORITY

Provisions of Arizona Revised Statutes (ARS) authorize CAP, its legal name being Central Arizona Water Conservation District (CAWCD), 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 is anticipating issuing \$51.7 million in bonds for CAGRD water supply capital projects in 2018.

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 2017.

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 2017.

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. Department of the Interior Bureau of Reclamation (Bureau, BOR or 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 \$1.077 billion at the end of 2018 and \$1.044 billion at the end of 2019.

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 sale of surplus power from the Navajo Generating Station (NGS), the surcharge on energy sold in Arizona from the Hoover Power Plant and the Parker-Davis Project, net NGS O&M revenues and expenses, 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.

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 2019 for delivery in 2020. 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 the uncertainty surrounding the reallocation, no revenue or cash impacts have been included in the 2018 / 2019 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.

CAGRDR 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.

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

COMMITTED RESERVES

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

Extraordinary Cost Reserve – Established in 2013, this fund has been committed to address unpredictable cost concerns due to the uncertainty in the power and related markets as well as the impact of Proposition 117 that has placed a cap on property taxes. In June 2013, the Board increased ad valorem taxes by \$0.04 (increased to \$0.10 per \$100 assessed valuation) and directed the funds to be held in a separate account that is not included in strategic reserves. The

amount was reduced to \$0.025 in 2016 and held at that level for 2017. It is anticipated that these funds will be utilized for NGS decommissioning costs though the Board will ultimately direct the purposes for which these funds can 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 (SO₂) Credit Reserves – Established in 2005, the SO₂ 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 SO₂ 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 is voluntary and only certain customers elected to participate in this program using 2014 rate reconciliation refunds that otherwise would have been reimbursed to them.

Navajo Decommissioning Reserves – Established in 2005, this fund was established to collect funds for CAP’s share of future costs associated with decommissioning of the NGS.

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 reserves for potential future needs. These reserves are described below:

Capital Reserve – Established in 1990 for the purpose of funding future capital projects.

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.

STRATEGIC RESERVES

The District maintains several reserves as indicated on the following chart. Many of these reserves are strategic reserves to meet unknown or unplanned events. The restricted reserves are required by the repayment stipulation as part of the capital reserve. The exception is the working capital reserve, which is self-replenishing and is used to meet daily cash requirements. Strategic reserves are comprised of restricted, assigned and unassigned reserves. Restricted are those funds that have an externally enforceable legal restriction placed on the use of the funds. Assigned are those funds the Board has directed staff to maintain. Unassigned funds are CAP's working capital operating funds.

In March 2016, the Board revised its strategic reserve targets to \$222 million from a previous target of \$221 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 below target temporarily for 2018 and reach target during 2019 (see page 2-32 for additional information).

Strategic Reserve Targets (Millions)

Restricted Reserves:

Repayment Reserve	\$ 40.0
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Emergency OM&R Reserve (\$4.0 million plus accrued interest)	\$ 6.0
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Assigned Reserves:

Capital Reserve	\$ 65.0
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Operating Reserve	\$ 66.0
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Contingency Reserve	\$ 10.0
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Unassigned Reserves:

Working Capital Reserve	\$ 35.0
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TOTAL	\$222.0
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FUND RESERVES

UNASSIGNED / UNRESTRICTED	ASSIGNED	RESTRICTED	COMMITTED
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Working Capital Reserve	Operating Reserve	Repayment Reserve
	Contingency Reserve	Emergency O&M Reserve
These two reserves are managed together	Capital Reserve	Major Repair/Replacement Reserve

Supplemental Water Reserve	Extraordinary Cost Reserve
CAGRD Replenishment Reserves	Water Storage Reserves
CAGRD I&WR Reserves	Rate Stabilization / SO ₂ Reserves
Captive Insurance Reserves	Navajo Decommissioning Reserve
	CAGRD 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. <u>None of these reserves are part of strategic reserves.</u>

COMBINED FINANCIAL STATEMENTS

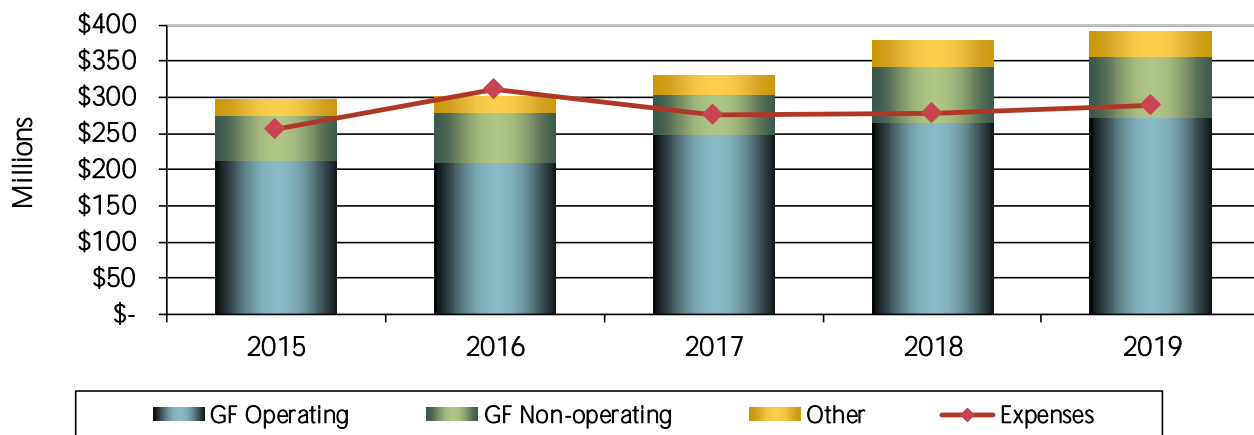
Central Arizona Water Conservation District (CAWCD or District) accounts for its financial activities in conformance with Generally Accepted Accounting Principles (GAAP) as applicable to a government "enterprise fund." Activity is accounted for using the accrual method and incorporates the requirements 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.

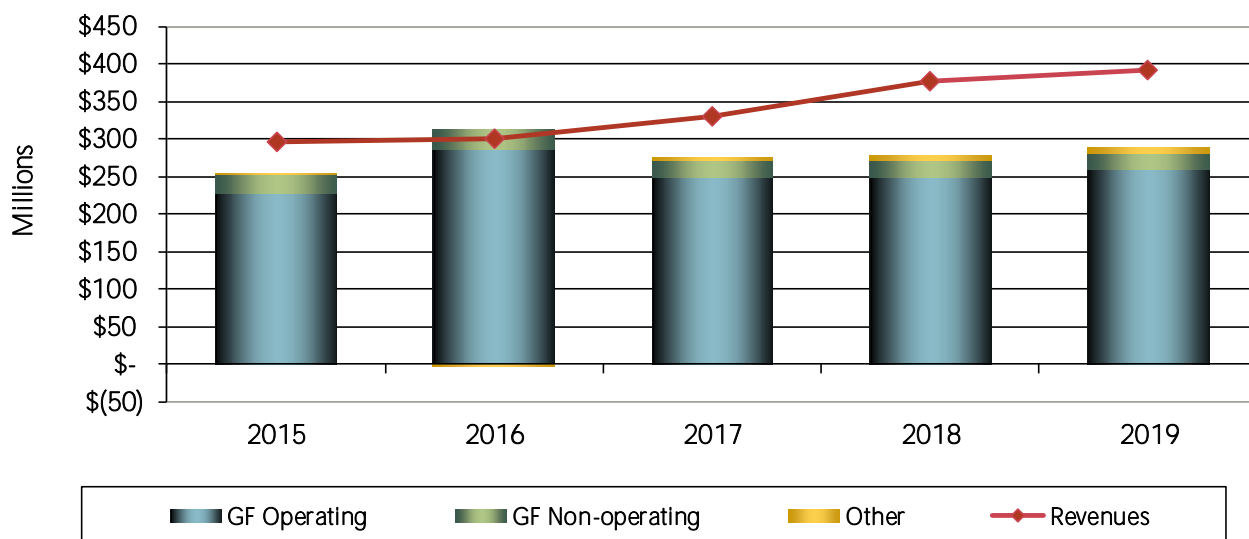
FUND	DESCRIPTION
General Fund	Represents CAWCD's core business, the delivery of Colorado River water to central Arizona through the Central Arizona Project (CAP) and repayment of reimbursable construction costs and is, by an order of magnitude, the largest fund within the District.
Central Arizona Groundwater Replenishment District Account (CAGRDR)	Represents the activities of the CAGRDR 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

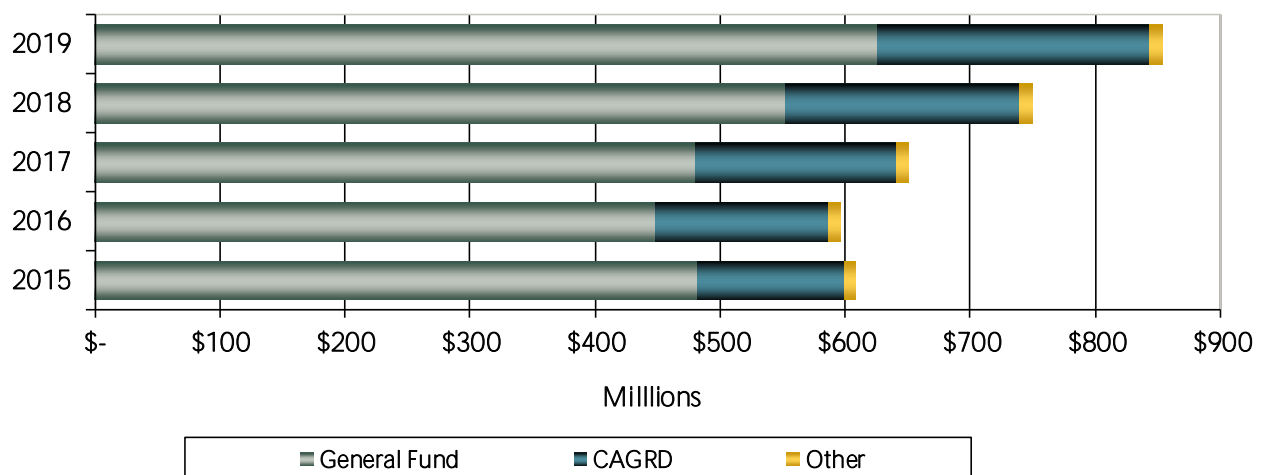
Revenues Compared to Expenses



Expenses Compared to Revenues



Net Position



STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION
ALL FUNDS
(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Operating Revenues					
Water operations & maintenance charges	\$ 164,298	\$ 168,412	\$ 194,039	\$ 204,330	\$ 206,746
Water service capital charges	15,573	15,861	20,172	29,398	30,689
Power and Basin Development Fund revenues	22,288	15,097	25,505	26,190	28,596
Reimbursements and other operating revenues	30,949	30,708	34,175	39,963	43,105
Total Operating Revenues	233,108	230,078	273,891	299,881	309,136
Operating Expenses					
Salaries and related costs	(56,133)	(60,396)	(64,081)	(65,467)	(68,090)
Pumping Power and Capacity Charges	(100,245)	(96,332)	(94,928)	(91,229)	(89,727)
Transmission	(6,833)	(5,104)	(11,357)	(13,137)	(13,451)
Amortization of permanent service right	(23,018)	(23,018)	(23,001)	(23,001)	(23,001)
Depreciation	(19,756)	(21,597)	(21,858)	(25,336)	(27,227)
Other operating expenses					
Outside services	(17,712)	(24,890)	(20,657)	(20,949)	(25,144)
Materials and supplies	(6,824)	(7,262)	(6,966)	(7,948)	(7,586)
Water for recharge	2,315	3,467	(1,407)	(2,239)	(3,065)
Other expenses	(2,126)	(51,531)	(7,854)	(5,310)	(6,547)
Subtotal	(24,347)	(80,216)	(36,884)	(36,446)	(42,342)
Total Operating Expenses	(230,332)	(286,663)	(252,109)	(254,616)	(263,838)
Operating Income/(Loss)	2,776	(56,585)	21,782	45,265	45,298
Non-operating Revenues/(Expenses)					
Property taxes	60,335	64,571	49,518	70,680	74,033
Interest income & other non-operating revenues	3,417	5,420	6,481	7,318	9,053
Interest expense & other non-operating expenses	(25,385)	(24,855)	(23,574)	(23,896)	(24,833)
Non-operating Income/(Loss)	38,367	45,136	32,425	54,102	58,253
Change in Net Position	41,143	(11,449)	54,207	99,367	103,551
Cumulative-effect of change in accounting principles	(78,968)	-	-	-	-
Net Position at beginning of year	645,665	607,840	596,391	650,598	749,965
Net Position at end of year	<u>\$ 607,840</u>	<u>\$ 596,391</u>	<u>\$ 650,598</u>	<u>\$ 749,965</u>	<u>\$ 853,516</u>

COMBINING SCHEDULE OF REVENUES, EXPENSES & CHANGES IN NET POSITION BY FUND & ACCOUNT

(Thousands)

	2018 Budget	Elim	General Fund	Supp Water Account	CAGRD Account	Captive Insurance Fund
Operating Revenues						
Water operations & maintenance charges	\$ 204,330	\$ (3,745)	\$ 208,075	\$ -	\$ -	\$ -
Water service capital charges	29,398	(1,135)	30,533	-	-	-
Power & basin development fund revenues	26,190	-	26,190	-	-	-
Reimbursements & other revenues	39,963	(10,270)	1,855	-	39,130	9,248
Total Operating Revenues	299,881	(15,150)	266,653	-	39,130	9,248
Operating Expenses						
Salaries and related costs	(65,467)	-	(64,409)	-	(1,058)	-
Pumping power and Capacity charges	(91,229)	-	(91,229)	-	-	-
Transmission	(13,137)	-	(13,137)	-	-	-
Amortization of permanent service right	(23,001)	-	(23,001)	-	-	-
Depreciation	(25,336)	-	(25,275)	-	(61)	-
Other operating expenses	-	-	-	-	-	-
Outside services	(20,949)	-	(19,417)	-	(1,336)	(196)
Materials and supplies	(7,948)	-	(7,948)	-	-	-
Overhead	3,336	-	4,408	-	(1,072)	-
Water for recharge	(2,239)	4,902	-	-	(7,141)	-
Other expenses	(8,646)	10,248	(9,801)	-	(38)	(9,055)
Subtotal	(36,446)	15,150	(32,758)	-	(9,587)	(9,251)
Total Operating Expenses	(254,616)	15,150	(249,809)	-	(10,706)	(9,251)
Operating Income/(Loss)	45,265	-	16,844	-	28,424	(3)
Non-operating Revenues/(Expenses)						
Property taxes	70,680	-	70,680	-	-	-
Interest income & other non-operating revenues	7,318	-	6,574	146	591	7
Interest expense & other non-operating expenses	(23,896)	-	(22,199)	-	(1,697)	-
Non-operating Income/(Loss)	54,102	-	55,055	146	(1,106)	7
Change in Net Position	99,367	-	71,899	146	27,318	4
Net Position at beginning of year	650,598	(2,350)	479,763	8,369	161,026	3,790
Net Position at end of year	\$ 749,965	\$ (2,350)	\$ 551,662	\$ 8,515	\$ 188,344	\$ 3,794

COMBINING SCHEDULE OF REVENUES, EXPENSES & CHANGES IN NET POSITION BY FUND & ACCOUNT

(Thousands)

	2019 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
Operating Revenues						
Water operations & maintenance charges	\$ 206,746	\$ (3,920)	\$ 210,666	\$ -	\$ -	\$ -
Water service capital charges	30,689	(1,151)	31,840	-	-	-
Power & basin development fund revenues	28,596	-	28,596	-	-	-
Reimbursements & other revenues	43,105	(10,756)	1,940	-	42,187	9,734
Total Operating Revenues	309,136	(15,827)	273,042	-	42,187	9,734
Operating Expenses						
Salaries and related costs	(68,090)	-	(67,001)	-	(1,089)	-
Pumping power and Capacity charges	(89,727)	-	(89,727)	-	-	-
Transmission	(13,451)	-	(13,451)	-	-	-
Amortization of permanent service right	(23,001)	-	(23,001)	-	-	-
Depreciation	(27,227)	-	(27,166)	-	(61)	-
Other operating expenses	-	-	-	-	-	-
Outside services	(25,144)	-	(24,205)	-	(735)	(204)
Materials and supplies	(7,586)	-	(7,586)	-	-	-
Overhead	2,775	-	3,879	-	(1,104)	-
Water for recharge	(3,065)	5,093	-	-	(8,158)	-
Other expenses	(9,322)	10,734	(10,622)	-	(39)	(9,395)
Subtotal	(42,342)	15,827	(38,534)	-	(10,036)	(9,599)
Total Operating Expenses	(263,838)	15,827	(258,880)	-	(11,186)	(9,599)
Operating Income/(Loss)	45,298	-	14,162	-	31,001	135
Non-operating Revenues/(Expenses)						
Property taxes	74,033	-	74,033	-	-	-
Interest income & other non-operating revenues	9,053	-	8,008	165	873	7
Interest expense & other non-operating expenses	(24,833)	-	(22,271)	-	(2,562)	-
Non-operating Income/(Loss)	58,253	-	59,770	165	(1,689)	7
Change in Net Position	103,551	-	73,932	165	29,312	142
Net Position at beginning of year	749,965	(2,350)	551,662	8,515	188,344	3,794
Net Position at end of year	\$ 853,516	\$ (2,350)	\$ 625,594	\$ 8,680	\$ 217,656	\$ 3,936

STATEMENTS OF NET POSITION - COMBINED

(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
ASSETS					
Current Assets					
Cash and cash equivalents	\$ 110,140	\$ 87,137	\$ 68,789	\$ 75,344	\$ 99,811
Receivables	16,683	25,692	26,329	31,029	24,332
Water inventory	83,718	96,240	112,881	117,674	124,747
Other	10,068	10,386	9,848	9,328	611
Total Current Assets	220,609	219,455	217,847	233,375	249,501
Non-current Assets					
Funds held by the federal government	31,118	27,980	26,390	27,076	29,511
Investments	231,306	284,897	323,235	324,079	362,840
Restricted assets	104,152	129,980	117,239	173,749	179,995
Capital assets					
Operating assets, less acc depr	249,899	267,688	286,985	335,782	339,973
Permanent service right, less acc amort	1,158,339	1,135,321	1,112,303	1,089,285	1,066,267
Agriculture water allocation	88,719	88,719	88,719	88,719	88,719
Total Non-current Assets	1,863,533	1,934,585	1,954,871	2,038,690	2,067,305
Total Assets	2,084,142	2,154,040	2,172,718	2,272,065	2,316,806
DEFERRED OUTFLOWS OF RESOURCES					
Pension Valuation	5,996	12,150	13,150	12,150	12,150
Total Deferred Outflows of Resources	5,996	12,150	13,150	12,150	12,150
Total Assets and Deferred Outflows of Resources	\$ 2,090,138	\$ 2,166,190	\$ 2,185,868	\$ 2,284,215	\$ 2,328,956
LIABILITIES					
Current Liabilities					
Accounts payable	\$ 25,118	\$ 23,477	\$ 17,554	\$ 20,109	\$ 26,293
Accrued payroll, payroll taxes & other accrued exp.	7,015	7,723	7,423	7,854	8,088
Unearned revenue	37,360	42,024	46,328	49,163	54,445
Accrued interest payable	25,385	25,437	24,402	24,800	23,453
Repayment obligation, due within one year	31,362	31,361	1,505	32,929	32,929
Contract revenue bonds, due within one year	-	1,345	32,929	2,030	2,470
Total Current Liabilities	126,240	131,367	130,141	136,885	147,678
Non-current Liabilities					
Repayment obligation, due after one year	1,141,070	1,109,709	1,076,780	1,043,851	1,010,922
Contract revenue bonds, due after one year	-	52,154	49,781	101,058	98,190
Non-Indian agriculture 9(d) debt	88,719	88,719	88,719	88,719	88,719
Other non-current liabilities	94,981	148,649	149,237	123,685	89,750
Total Non-current Liabilities	1,324,770	1,399,231	1,364,517	1,357,313	1,287,581
Total Liabilities	1,451,010	1,530,598	1,494,658	1,494,198	1,435,259
DEFERRED INFLOWS OF RESOURCES					
Customer deposits	23,581	28,818	30,229	29,669	29,798
Pension Valuation	7,707	10,383	10,383	10,383	10,383
Total Deferred Inflows of Resources	31,288	39,201	40,612	40,052	40,181
NET POSITION					
Net investment in capital assets.	235,806	231,382	238,293	299,326	315,751
Restricted	78,767	79,092	93,718	150,457	157,823
Unrestricted	293,267	285,917	318,587	300,182	379,942
Total Net Position	607,840	596,391	650,598	749,965	853,516
Total Liabilities, Def Inflows & Net Position	\$ 2,090,138	\$ 2,166,190	\$ 2,185,868	\$ 2,284,215	\$ 2,328,956

COMBINING SCHEDULE OF NET POSITION - BY FUND & ACCOUNT

(Thousands)

	2018 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
ASSETS						
Current Assets						
Cash and cash equivalents	\$ 75,344	\$ -	\$ 53,901	\$ -	\$ 16,091	\$ 5,352
Receivables	31,029	(130)	20,279	-	10,880	-
Water inventory	117,674	-	32,396	-	85,278	-
Other	9,328	-	9,318	-	-	10
Total Current Assets	233,375	(130)	115,894	-	112,249	5,362
Non-current Assets						
Funds held by the federal government	27,076	-	27,076	-	-	-
Investments	324,079	(2,350)	326,034	-	-	395
Restricted assets	173,749	-	73,383	8,515	89,601	2,250
Capital assets						
Operating assets, less acc depr	335,782	-	289,877	-	45,905	-
Permanent service right, less acc amort	1,089,285	-	1,089,285	-	-	-
Agriculture water allocation	88,719	-	88,719	-	-	-
Total Non-current Assets	2,038,690	(2,350)	1,894,374	8,515	135,506	2,645
Total Assets	2,272,065	(2,480)	2,010,268	8,515	247,755	8,007
DEFERRED OUTFLOWS OF RESOURCES						
Pension valuation	12,150	-	12,150	-	-	-
Total Deferred Outflows of Resources	12,150	-	12,150	-	-	-
Total Assets and Deferred Outflows of Resources	\$ 2,284,215	\$ (2,480)	\$ 2,022,418	\$ 8,515	\$ 247,755	\$ 8,007
LIABILITIES						
Current Liabilities						
Accounts payable	\$ 20,109	\$ (130)	\$ 12,250	\$ -	\$ 3,776	\$ 4,213
Accrued payroll, payroll taxes & other	7,854	-	7,854	-	-	-
Unearned revenue	49,163	-	49,163	-	-	-
Accrued interest payable	24,800	-	23,292	-	1,508	-
Repayment obligation, due within one yr	32,929	-	32,929	-	-	-
Contract revenue bonds, due within one yr	2,030	-	1,565	-	465	-
Total Current Liabilities	136,885	(130)	127,053	-	5,749	4,213
Non-current Liabilities						
Repayment obligation, due after one year	1,043,851	-	1,043,851	-	-	-
Contact revenue bonds, due after one year	101,058	-	47,396	-	53,662	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Other liabilities	123,685	-	123,685	-	-	-
Total Non-current Liabilities	1,357,313	-	1,303,651	-	53,662	-
Total Liabilities	1,494,198	(130)	1,430,704	-	59,411	4,213
DEFERRED INFLOWS OF RESOURCES						
Customer deposits	29,669	-	29,669	-	-	-
Pension Valuation	10,383	-	10,383	-	-	-
Total Deferred Inflows of Resources	40,052	-	40,052	-	-	-
NET POSITION						
Net Investment in capital assets,	299,326	-	253,421	-	45,905	-
Restricted	150,457	-	50,091	8,515	89,601	2,250
Unrestricted	300,182	(2,350)	248,150	-	52,838	1,544
Total Net Position	749,965	(2,350)	551,662	8,515	188,344	3,794
Total Liabilities, Def Inflows & Net Position	\$ 2,284,215	\$ (2,480)	\$ 2,022,418	\$ 8,515	\$ 247,755	\$ 8,007

COMBINING SCHEDULE OF NET POSITION - BY FUND & ACCOUNT

(Thousands)

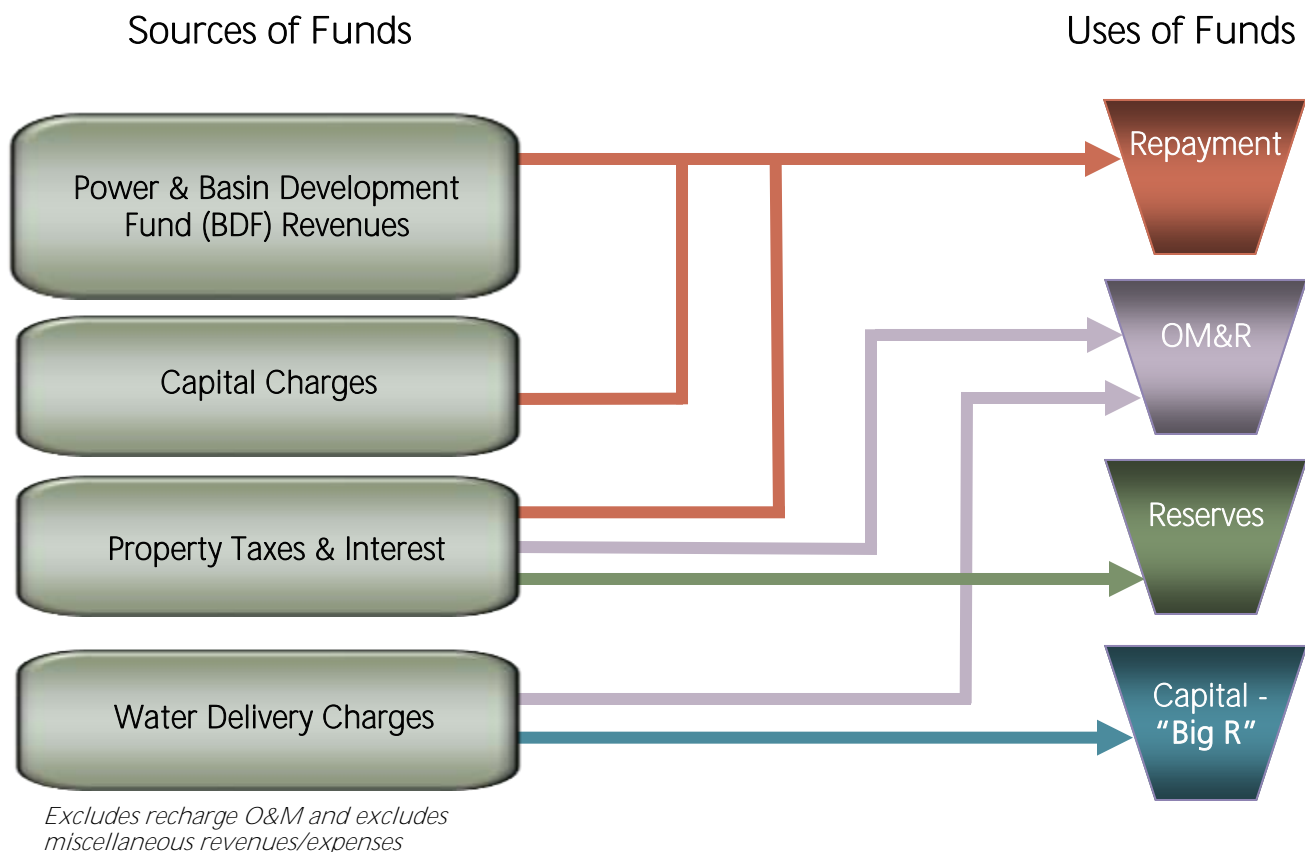
	2019 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
ASSETS:						
Current Assets:						
Cash and cash equivalents	\$ 99,811	\$ -	\$ 76,880	\$ -	\$ 17,536	\$ 5,395
Receivables	24,332	(130)	13,055	-	11,407	-
Water inventory	124,747	-	30,356	-	94,391	-
Other	611	-	601	-	-	10
Total Current Assets	249,501	(130)	120,892	-	123,334	5,405
Non-current Assets:						
Funds held by the federal government	29,511	-	29,511	-	-	-
Investments	362,840	(2,350)	364,795	-	-	395
Restricted assets	179,995	-	66,112	8,680	102,953	2,250
Capital assets						
Operating assets, less acc depr	339,973	-	286,281	-	53,692	-
Permanent service right, less acc amort	1,066,267	-	1,066,267	-	-	-
Agriculture water allocation	88,719	-	88,719	-	-	-
Total Non-current Assets	2,067,305	(2,350)	1,901,685	8,680	156,645	2,645
Total Assets	\$ 2,316,806	(2,480)	2,022,577	8,680	279,979	8,050
Deferred Outflows						
Pension valuation	12,150	-	12,150	-	-	-
Total Deferred Outflows	12,150	-	12,150	-	-	-
Total Assets and Deferred Outflows	\$ 2,328,956	\$ (2,480)	\$ 2,034,727	\$ 8,680	\$ 279,979	\$ 8,050
LIABILITIES:						
Current Liabilities:						
Accounts payable	\$ 26,293	\$ (130)	\$ 15,289	\$ -	\$ 7,020	\$ 4,114
Accrued payroll, payroll taxes & other	8,088	-	8,088	-	-	-
Unearned revenue	54,445	-	54,445	-	-	-
Accrued interest payable	23,453	-	22,172	-	1,281	-
Repayment obligation, due within one yr	32,929	-	32,929	-	-	-
Contract revenue bonds, due within one yr	2,470	-	1,645	-	825	-
Total Current Liabilities	147,678	(130)	134,568	-	9,126	4,114
Non-current Liabilities:						
Repayment obligation, due after one year	1,010,922	-	1,010,922	-	-	-
Contact revenue bonds, due after one year	98,190	-	44,993	-	53,197	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Other liabilities	89,750	-	89,750	-	-	-
Total Non-current Liabilities	1,287,581	-	1,234,384	-	53,197	-
Total Liabilities	1,435,259	(130)	1,368,952	-	62,323	4,114
DEFERRED INFLOWS:						
Customer deposits	29,798	-	29,798	-	-	-
Pension Valuation	10,383	-	10,383	-	-	-
Total Deferred Inflows	40,181	-	40,181	-	-	-
NET POSITION:						
Net Investment in capital assets,	315,751	-	262,059	-	53,692	-
Restricted	157,823	-	43,940	8,680	102,953	2,250
Unrestricted	379,942	(2,350)	319,595	-	61,011	1,686
Total Net Position	853,516	(2,350)	625,594	8,680	217,656	3,936
Total Liabilities, Def Inflows & Net Position	\$ 2,328,956	\$ (2,480)	\$ 2,034,727	\$ 8,680	\$ 279,979	\$ 8,050

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 power), recharge O&M and capital expenditures.

GENERAL FUND SOURCES AND USES OF FUNDS



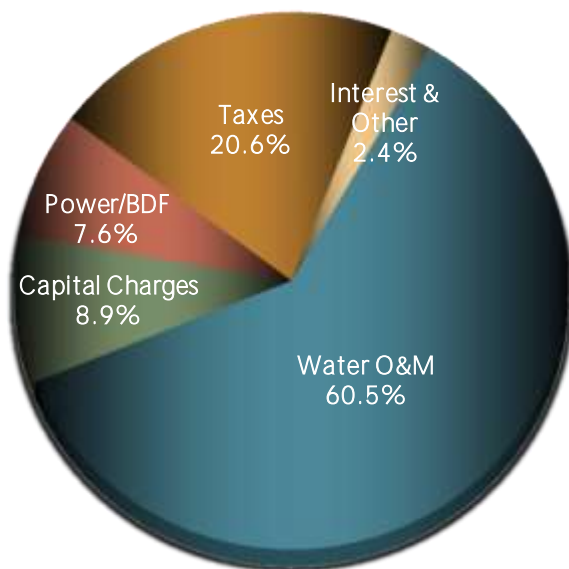
REVENUES

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 60% for 2018 and 2019. 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.

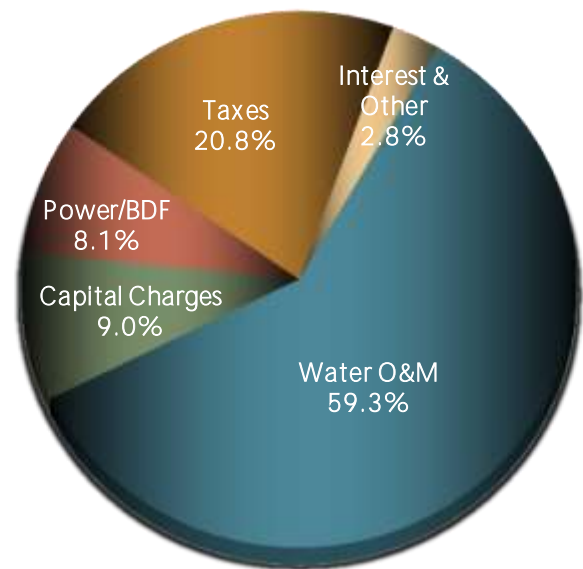
General Fund -2018 Revenues

(\$343.9 Million)



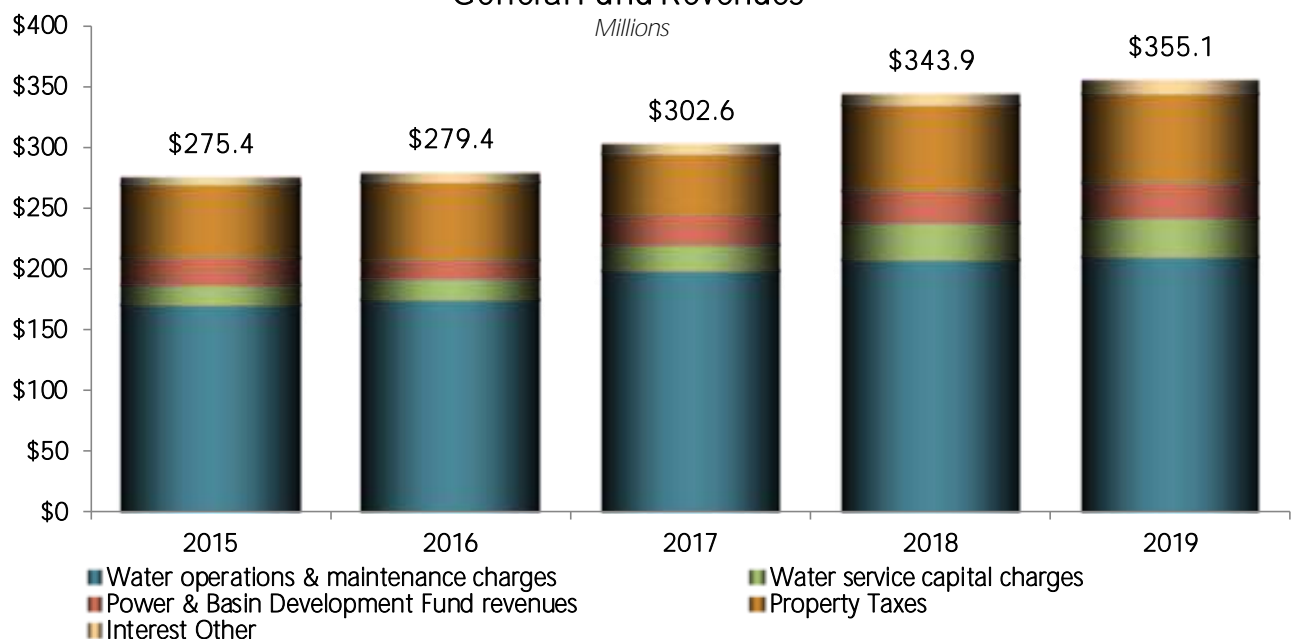
General Fund -2019 Revenues

(\$355.1 Million)



General Fund Revenues

Millions



EXPLANATION OF CHANGES

Total General Fund revenues are projected to increase \$41.3 million for 2018 and \$11.2 million in 2019. The following discussion further explains the changes in the 2018 / 2019 revenue budget.

(Millions)	2017 Projection	2018 Budget	2019 Budget	18 vs 17 Incr/(decr)	19 vs 18 Incr/(decr)
Water O&M charges	\$ 198.7	\$ 208.1	\$ 210.7	\$ 9.4	\$ 2.6
Capital charges	21.2	30.5	31.8	9.3	1.3
Power & BDF revenues	25.5	26.2	28.6	0.7	2.4
Property taxes	49.5	70.7	74.0	21.2	3.3
Interest income	7.7	8.4	10.0	0.7	1.6
Total	\$ 302.6	\$ 343.9	\$ 355.1	\$ 41.3	\$ 11.2

Water O&M Charges

As discussed in the Water Delivery Volumes and Water Delivery Charges on pages 2-4 through 2-9, water O&M revenue is directly linked to the amount of water that is delivered and the rates that are charged (see page 8-3). It is anticipated that both 2018 and 2019 will be normal delivery years with water deliveries (including credits) of 1.455 million acre-feet and 1.457 million acre-feet, respectively. Water deliveries for 2017 are projected to be 1.386 million acre-feet. CAGR D purchases long-term storage credits (LTSC) that CAWCD holds and are included in the calculation of rates. Deliveries are less than in prior years due to the shortage mitigation programs that leave water in Lake Mead. The decreased volumes are driving up the Fixed OM&R rate, which is offset by a lower pumping power rate. Most of the 2018 revenue increase is related to an increase in water volumes.

Water O&M revenue is also impacted by the amount of water storage tax that the Arizona Water Banking Authority (AWBA) 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. AWBA will use \$0.3 million in 2018 and 2019 compared to \$1.0 million in 2017. This amount is less than in prior years due to the decreased availability of excess water to AWBA.

Capital Charges

The capital charge revenue is based on \$31 per acre-foot for 2017, \$45 per acre-foot in 2018 and \$47 per acre-foot in 2019. Due to the decrease in revenues in the Basin Development Fund (BDF), capital charges have been raised to cover the annual Federal debt repayment.

All property is taxed based on the LPV, which limits the increase in property values to a maximum of 5% year-over-year. The Board establishes the tax rates each June for the following tax year and may change the rates as it deems appropriate.

The general ad valorem tax, while available for most District needs, has in recent years been used primarily to pay for the agricultural Fixed OM&R costs and agricultural incentive program.

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. 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 0 in 2031. The agricultural incentive program was designed to assist agricultural customers with energy costs and is evaluated as part of each rate cycle.

The water storage tax is planned in the budget to be held at \$0.04 and be retained by CAWCD for repayment or operating costs. In the 2017 / 2018 tax year (October 2017 through September 2018), \$.02 of the water storage tax will be utilized for the Ag Consideration program. This use is not anticipated to be continued in the 2018 / 2019 tax year.

It is anticipated that \$17.6 million will be transferred to the AWBA in 2017 for long-term storage credit (LTSC) purchase. Annually, the Board determines the amount to transfer based on the AWBA requested amounts for LTSC purchases; 2018 and 2019 do not include any tax transfers. When the transfers occur, property tax revenue is decreased by the amount of the transfer. The large 2017 transfer amount is the reason there is such a significant increase in 2018 as well as the decrease in 2015.

(Millions)

Calendar Year	General Ad Valorem Tax	Water Storage Ad Valorem Tax	Total Revenue	Year-over-Year incr/(decr)
2015	\$45.3	\$15.0	\$60.3	(0.7)
2016	46.1	18.5	64.6	4.3
2017	47.9	1.6	49.5	(15.1)
2018	50.5	20.2	70.7	21.2
2019	52.9	21.1	74.0	3.3

Interest Income

Interest income is projected to be at \$6.6 million in 2018 and \$8.0 million in 2019 for funds invested with the Arizona State Treasurer based on approximately 15% short-term investments (under 1 year) and 85% longer term investments (2-5 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 2018 through 2019.

Though it is anticipated that 46,629 acre-feet of non-Indian Agriculture (NIA) water will be allocated by the end of 2019, there is 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, neither the back capital charges or related interest have been included in the budget.

Power & BDF Revenues

Power and BDF revenues fluctuate each year for a variety of reasons, including:

- Timing of revenues and expenses for the Navajo Generating Station (NGS) activity
- Surplus NGS power sales and the variability of the power markets
- Transmission revenues and costs
- Land use charges and land sales

Each of these items influence the amount of funds in the BDF that are available toward the District's annual repayment obligation.

For 2018 and 2019, BDF revenues are expected to increase from 2017, mainly as a result of reduced O&M and capital expenditures related to the impending NGS shutdown by the end of 2019.

BDF revenue is shown on the following table:

<i>(Millions)</i>	2017 Projection	2018 Budget	2019 Budget	18 vs 17 incr/(decr)	19 vs 18 incr/(decr)
Power sales:					
SRP consideration fee	\$ 28.4	\$ 29.3	\$ 30.1	\$ 0.9	\$ 0.8
Net surplus power/ net NGS operations	(8.4)	(6.7)	(6.8)	1.7	(0.1)
Hoover 4.5 mil revenue	3.1	3.1	3.1	-	-
Parker-Davis 4.5 mil revenue	2.7	2.7	2.7	-	-
Net CAP transmission revenues	(2.0)	(3.7)	(3.3)	(1.7)	0.4
Transmission line loss revenues	0.5	0.5	0.5	-	-
Land related revenue	1.0	0.8	2.1	(0.2)	1.3
Misc NGS Revenues	0.2	0.2	0.2	-	-
Total	\$ 25.5	\$ 26.2	\$ 28.6	\$ 0.7	\$ 2.4

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. Beginning in 2015, CAP's property taxes are based on property's Primary (Limited) Assessed Value (LPV). In June 2017, the Board set the general ad valorem tax rate at \$0.10 per \$100 of LPV for the tax year 2017 / 2018 and the water storage tax at \$0.04 per \$100 of LPV. 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. These rates and direction have been maintained in the 2018 / 2019 budget.

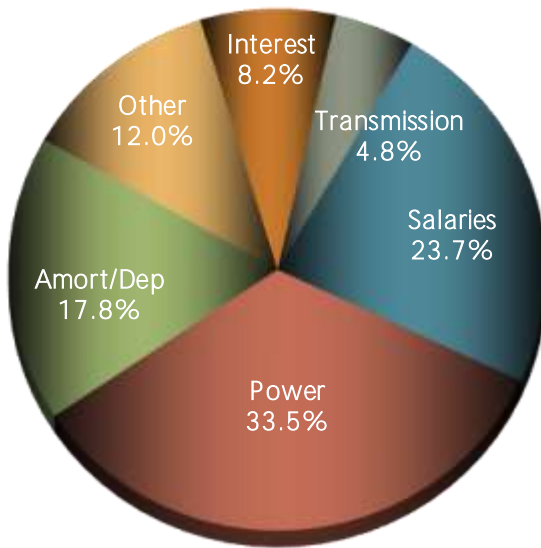


EXPENSES

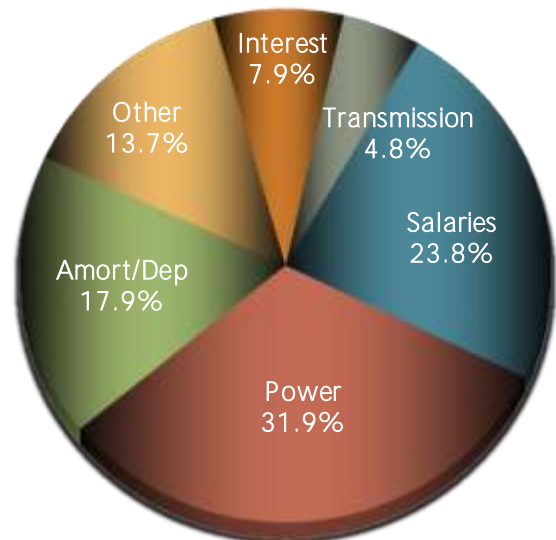
Expenses consist of pumping power, salaries and related costs, amortization and depreciation, interest and other operating costs.

Pumping power is the District's most significant expense, accounting for 33.5% of the 2018 expenses and 31.9% of the 2019 expenses. Salaries and related costs represent the second largest category, followed by amortization and depreciation, interest expense, transmission costs and other costs.

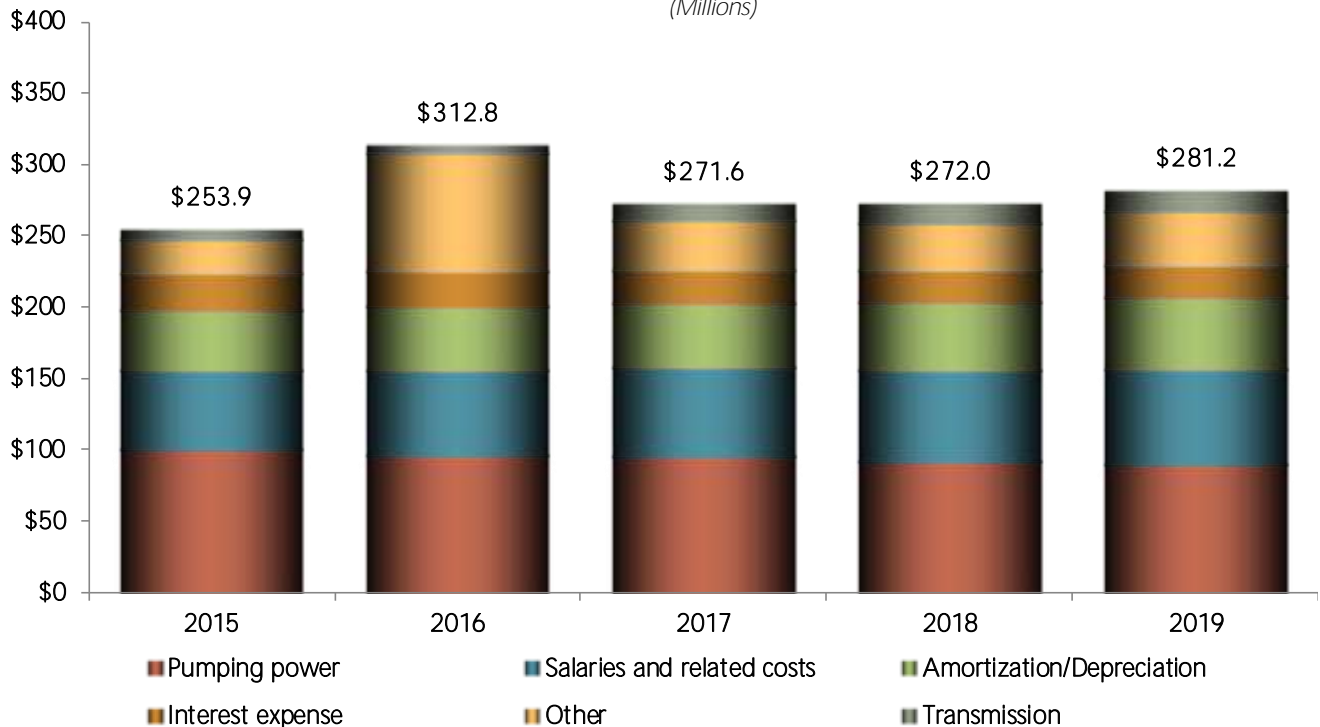
General Fund -2018 Expenses
(\$272.0 Million)



General Fund -2019 Expenses
(\$281.2 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) decrease in power costs due to decrease in the operating and capital costs of NGS as a result of the impending shutdown; 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 2018 / 2019 expense budget.

(Millions)	2017 Projection	2018 Budget	2019 Budget	18 vs 17 incr/(decr)	19 vs 18 incr/(decr)
Salaries and related costs	\$ 63.0	\$ 64.4	\$ 67.0	\$ 1.4	\$ 2.6
Pumping power (Pumping Power Only)	94.9	91.2	89.7	(3.7)	(1.5)
Transmission	11.4	13.1	13.5	1.7	0.4
Amortization/Depreciation	44.9	48.3	50.2	3.4	1.9
Other expenses	33.8	32.8	38.5	(1.0)	5.7
Interest expense	23.6	22.2	22.3	(1.4)	0.1
Total expenses	\$ 271.6	\$ 272.0	\$ 281.2	\$ 0.4	\$ 9.2

Salaries and Related Costs

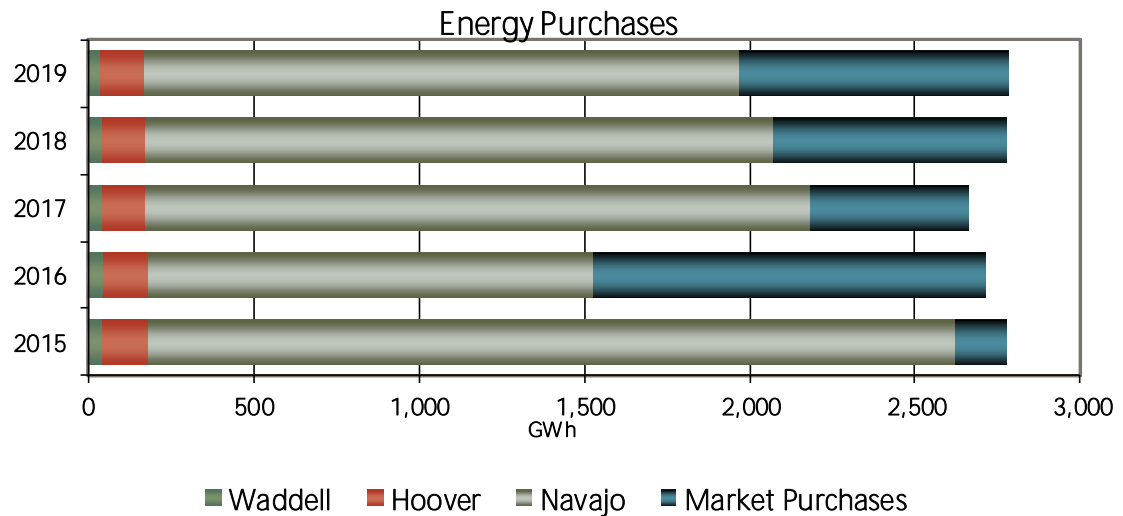
CAP is seeing a significant number of retirements and prior to replacement, each position is reviewed to determine the most effective and efficient manner to fill the needs of that position, whether it be through replacement, consolidation or restructuring. There are no additional full time equivalents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

The amount of labor spent on capital projects will also impact the General Fund expenses. If there are more capital projects with internal labor, the labor is capitalized as part of the project rather than being expensed. Conversely, as in 2018 and 2019, capital projects are requiring less internal labor and the labor is expensed. Part of this decrease is due to a reprioritization of available staff to focus on asset modifications, which are more maintenance type activities, rather than capital projects.

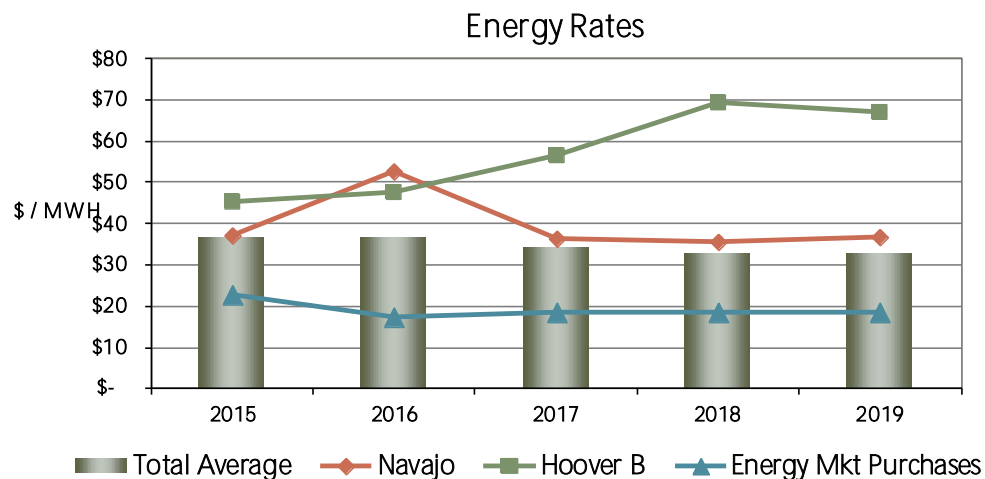
To reflect our recent history, CAWCD has established a vacancy and salary savings equivalent adjustment of fifteen positions in the 2018 and 2019 budget. Overall, salaries and related costs are anticipated to increase \$1.4 million in 2018 and \$2.6 million in 2019 for the General Fund.

Pumping Power

Five factors influence pumping power costs: (1) the amount of power 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. The following graphs show the gigawatt hours (GWh) of energy needed from 2015 to 2019 and the average cost of energy in total and by category. Energy market purchases are costs for buying and selling power for operational needs, when NGS power is not available or more costly than purchased power.



Energy costs decrease in 2018 and 2019 as a result of the impending shutdown of NGS. Less major maintenance and no capital expenditures are occurring in the remaining years. There will be significant decommissioning costs that will be incurred as a result of the shutdown. A \$49 million accrual for estimates of the decommissioning costs were recorded in 2016. Indications are that there will need to be another significant accrual that will need to occur in 2017, though it has not been included in the 2017 forecast as estimates were not available. In addition, open market energy costs remain lower due to a soft energy market.



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

Transmission

The increase in transmission costs in 2018 forward is due in part to a credit that had been applied in 2017. Additionally, with the new 2017 Hoover contract, Parker-Davis and Intertie transmission costs are unbundled from the Hoover B energy rate and are included in the transmission costs.

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 2018 through 2019 based on the preset amortization schedule.

Depreciation expense is anticipated to increase to \$25.3 million in 2018 and \$27.2 million in 2019, due to increased 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, accretion expense for the decommissioning of NGS, Multi-Species Conservation Program (MSCP) fees, Hoover capacity charges, outside services, materials and supplies and other costs related to travel, overhead allocation, etc.

In 2016, with the announcement of the impending closure of NGS, CAWCD recorded a \$48.4 million increase to the accretion or decommissioning costs for the coal-fired plant to bring the total accrued liability to \$62.5 million. More detailed cost projections are being completed in 2017 and an additional amount may have to be recorded, though 2017 does not currently include any additional amounts.

Other expenses are anticipated to be \$32.8 million in 2018 and \$38.5 million in 2019. Although the mix of items change from year to year, overall the recurring costs for operational expenses remains fairly consistent. The increases in 2018 and 2019 are related to the non-recurring items listed below:

- extraordinary maintenance projects (see pages 5-24 and 5-25 for details of these projects);
- Colorado River shortage mitigation program costs;
- an increase in MSCP fees per the previously defined schedule; and
- Board elections which occur in even-numbered years.

Interest Expense

Interest expense is anticipated to be \$23.6 million in 2017, \$22.2 million in 2018 and **\$22.3 million in 2019**. 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 the collection of water storage reserves above planned expenditures and to the collection of the general ad valorem tax above expenditures. As indicated, \$.025 of the general ad valorem taxes are being put into the Extraordinary cost reserve in anticipation of the large decommission costs that will be due.

<i>(Millions)</i>	2017 Projection	2018 Budget	2019 Budget	18 vs 17 incr/(decr)	19 vs 18 incr/(decr)
Revenues	\$ 302.6	\$ 343.9	\$ 355.1	\$ 41.3	\$ 11.2
Expenses	(271.6)	(272.0)	(281.2)	(0.4)	(9.2)
Change in net position	31.0	71.9	73.9	40.9	2.0
Net position at beginning of period	448.8	479.8	551.7	31.0	71.9
Net position at end of period	\$ 479.8	\$ 551.7	\$ 625.6	\$ 71.9	\$ 73.9



STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION
GENERAL FUND
(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Water Deliveries with credits (acre-feet in thousands)	1,458	1,436	1,386	1,455	1,458
Operating Revenues					
Water operations & maintenance charges	\$ 171,105	\$ 175,946	\$ 198,714	\$ 208,075	\$ 210,666
Water service capital charges	16,639	17,043	21,187	30,533	31,840
Power & Basin Development Fund revenues	22,288	15,097	25,505	26,190	28,596
Reimbursements and other revenues	1,815	1,659	1,844	1,855	1,940
Total Operating Revenues	<u>211,847</u>	<u>209,745</u>	<u>247,250</u>	<u>266,653</u>	<u>273,042</u>
Operating Expenses					
Salaries and related costs	(55,206)	(59,358)	(62,959)	(64,409)	(67,001)
Pumping power & Capacity Charges	(100,245)	(96,332)	(94,928)	(91,229)	(89,727)
Transmission	(6,833)	(5,104)	(11,357)	(13,137)	(13,451)
Amortization of permanent service right	(23,018)	(23,018)	(23,001)	(23,001)	(23,001)
Depreciation	(19,756)	(21,597)	(21,858)	(25,275)	(27,166)
Other operating expenses					
Outside services	(15,587)	(23,061)	(19,481)	(19,417)	(24,205)
Materials and supplies	(6,824)	(7,262)	(6,966)	(7,948)	(7,586)
Overhead	6,807	5,948	6,057	4,408	3,879
Other expenses	(7,828)	(58,146)	(13,502)	(9,801)	(10,622)
Subtotal	<u>(23,432)</u>	<u>(82,521)</u>	<u>(33,892)</u>	<u>(32,758)</u>	<u>(38,534)</u>
Total Operating Expenses	<u>(228,490)</u>	<u>(287,930)</u>	<u>(247,995)</u>	<u>(249,809)</u>	<u>(258,880)</u>
Operating Income/(Loss)	<u>(16,643)</u>	<u>(78,185)</u>	<u>(745)</u>	<u>16,844</u>	<u>14,162</u>
Non-operating Revenues					
Property taxes					
General ad valorem tax	45,273	46,126	47,878	50,490	52,885
Water storage tax	15,062	18,445	1,640	20,190	21,148
Subtotal	<u>60,335</u>	<u>64,571</u>	<u>49,518</u>	<u>70,680</u>	<u>74,033</u>
Interest income and other revenues	3,252	5,106	5,856	6,574	8,008
Total Non-operating Revenues	<u>63,587</u>	<u>69,677</u>	<u>55,374</u>	<u>77,254</u>	<u>82,041</u>
Non-operating Expenses					
Interest expense and other expenses	(25,385)	(24,855)	(23,574)	(22,199)	(22,271)
Total Non-operating Expenses	<u>(25,385)</u>	<u>(24,855)</u>	<u>(23,574)</u>	<u>(22,199)</u>	<u>(22,271)</u>
Total Non-operating Revenues/(Loss)	<u>38,202</u>	<u>44,822</u>	<u>31,800</u>	<u>55,055</u>	<u>59,770</u>
Change in Net Position	<u>21,559</u>	<u>(33,363)</u>	<u>31,055</u>	<u>71,899</u>	<u>73,932</u>
Cumulative-effect of Change in Accounting Principles	(78,968)	-	-	-	-
Net Position at beginning of year	539,480	482,071	448,708	479,763	551,662
Net Position at end of year	<u>\$ 482,071</u>	<u>\$ 448,708</u>	<u>\$ 479,763</u>	<u>\$ 551,662</u>	<u>\$ 625,594</u>

STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION
 UNDERGROUND STORAGE PROJECTS O&M (INCLUDED IN GENERAL FUND)
 (Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Water Deliveries (acre-feet in thousands)	117	107	101	91	92
Revenues					
Reimbursements and other revenues	1,635	1,257	1,326	1,247	1,331
Total Revenues	\$ 1,635	\$ 1,257	\$ 1,326	\$ 1,247	\$ 1,331
Expenses					
Salaries and related costs	(228)	(223)	(250)	(260)	(254)
Other operating expenses					
Outside services	(257)	(253)	(406)	(727)	(343)
Materials and supplies	(35)	(30)	(85)	(169)	(80)
Other expenses	(744)	(617)	(611)	(702)	(696)
Subtotal	(1,036)	(900)	(1,102)	(1,598)	(1,119)
Total Expenses	\$ (1,264)	\$ (1,123)	\$ (1,351)	\$ (1,858)	\$ (1,373)
Change in Net Position	371	135	(25)	(611)	(42)
Net Position at beginning of year	4,615	4,986	5,121	5,096	4,485
Net Position at end of year	\$ 4,986	\$ 5,121	\$ 5,096	\$ 4,485	\$ 4,443
Expense Summary					
Agua Fria	(93)	(73)	(179)	(216)	(110)
Hieroglyphic Mountains	(290)	(404)	(251)	(514)	(290)
Lower Santa Cruz	(223)	(192)	(312)	(326)	(268)
Pima Mine Road	(278)	(153)	(291)	(368)	(258)
Superstition Mountain	(302)	(244)	(236)	(269)	(281)
Tonopah	(77)	(56)	(82)	(165)	(166)
Total Expenses	\$ (1,264)	\$ (1,123)	\$ (1,351)	\$ (1,858)	\$ (1,373)

EXTRAORDINARY MAINTENANCE & OPERATING PROJECTS
(INCLUDED IN GENERAL FUND)
(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Expenses					
Salaries and related costs	\$ (143)	\$ (430)	\$ (392)	\$ (236)	\$ (347)
Other operating expenses					
Outside services	(103)	(4,270)	(4,507)	(831)	(7,511)
Materials and supplies	(1)	(5)	(6)	(10)	(1)
Other costs	(145)	(495)	(466)	(243)	(361)
Subtotal	(248)	(4,770)	(4,979)	(1,084)	(7,873)
Total Expenses	<u>\$ (391)</u>	<u>\$ (5,200)</u>	<u>\$ (5,371)</u>	<u>\$ (1,320)</u>	<u>\$ (8,220)</u>
Expense Summary					
EM-Steel Discharge Lines & Manifold Recoat MWA*	(262)	(5,200)	(5,371)	-	-
EM-Pool 33 Repairs	(128)	-	-	-	-
EM-P4 Embankment & Road Issues	(1)	-	-	-	-
EM-Discharge Lines & Manifolds Recoat at Waddell*	-	-	-	-	(228)
EM-Manifold Relining at LHQ & Hassayampa*	-	-	-	(996)	(1,148)
EM-Siphon Repairs at Salt River*	-	-	-	(324)	(6,844)
Total Expenses	<u>\$ (391)</u>	<u>\$ (5,200)</u>	<u>\$ (5,371)</u>	<u>\$ (1,320)</u>	<u>\$ (8,220)</u>

*" Big R" is the funding source for all budgeted 2018 - 2019 EM Projects

EM-Discharge Lines & Manifolds Recoat at Waddell - In the 2019 budget column is in design phase status

Extraordinary Maintenance Project Included in the General Fund Operating Expenses

MANIFOLD RELINING AT LITTLE HARQUAHALA & HASSAYAMPA

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 710037

START DATE: 1st Quarter 2018
COMPLETION DATE: 3rd Quarter 2019
TOTAL PROJECT COST: \$ 2,144,000
FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (IN \$000s):

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 2,144	\$ -	\$ 996	\$ 1,148	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

The existing linings on the steel manifolds at these two plants have been monitored since original construction. The degradation of the coating has now reached the point that replacement of the coating system is required. The coal tar enamel will be removed, the steel surface abraded with blast media and then recoated with high performance coatings. Relining the right side of Hassayampa and the left side of Little Harquahala pumping plants will be accomplished in 2018 and 2019 respectively.



JUSTIFICATION:

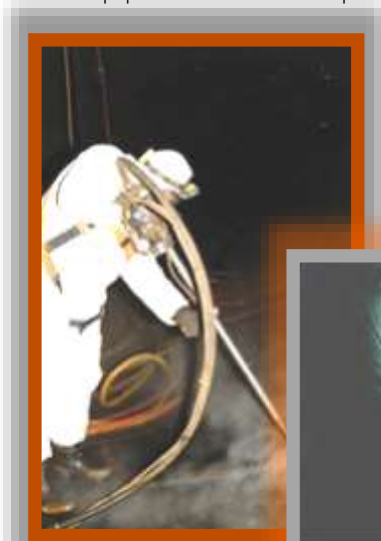
The pumping plant discharge valves are immediately downstream of each pump. Custom-made steel pipes are downstream of each discharge valve which manifold the flow together from the five motors on each half plant. The interior coating on the existing steel manifolds has failed and must be replaced before the pipe is damaged further.

OPERATING IMPACT:

The work is scheduled at each plant during the summer outages in 2018 and 2019. New coating ensures steel pipe manifolds are protected from corrosion.

SOCIAL IMPACT:

Continued reliable delivery of water provides a positive impact to the public. Relining the steel manifolds extends the lifetime of the pipes by 20+ years and minimizes future maintenance costs.



ENVIRONMENTAL IMPACT:

No significant environmental impact identified.



SIPHON REPAIRS AT SALT RIVER

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets

KEY RESULT AREA: Project Reliability

PROJECT #: 710038

START DATE: 1st Quarter 2018

COMPLETION DATE: 1st Quarter 2020

TOTAL PROJECT COST: \$ 7,576,000

FUNDING SOURCE: "Big R"

FINANCIAL IMPACT / COST ESTIMATE (IN \$000s):

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 7,576	\$ -	\$ 324	\$ 6,844	\$ 408	\$ -	\$ -	\$ -	\$ -

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 consists of inspection and repair of interior siphon coatings that have been compromised or removed over time in order to protect and preserve the steel pipe material.

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. If repairs are not performed and the Siphon is unprotected, an eventual leak may occur in the metal pipe which could dislodge the backfill surrounding the pipe, and this support is critical.



OPERATING IMPACT:

The implementation of this project will increase the reliability of the Siphon and reduce the risk of future failures that would be costly to CAP.

SOCIAL IMPACT:

The Salt River Siphon resides on tribal land and special considerations will need to be taken during construction.

ENVIRONMENTAL IMPACT:

The removal of fish will be 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.

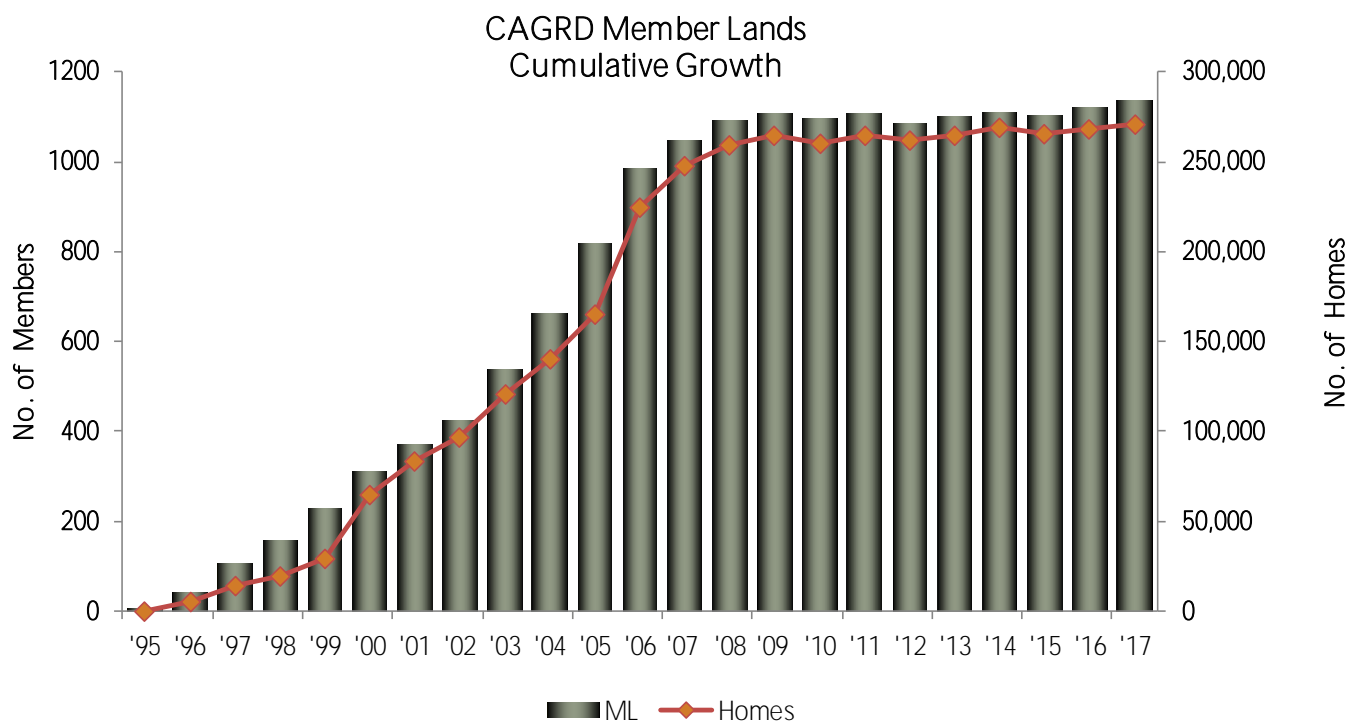


REPLENISHMENT OBLIGATION

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 1,120 through 2016 with approximately 268,000 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. For purposes of developing the budget, it was assumed there will be a modest increase in the rate of ML enrollments during 2018 and 2019. 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 will result from contracts executed between CAWCD and the water providers serving MSAs. Under such contracts, CAGRD would perform "Advance Replenishment" for the contracting MSA. Currently, CAGRD has only one active contract replenishment obligation agreement in place (City of Scottsdale).



REVENUES

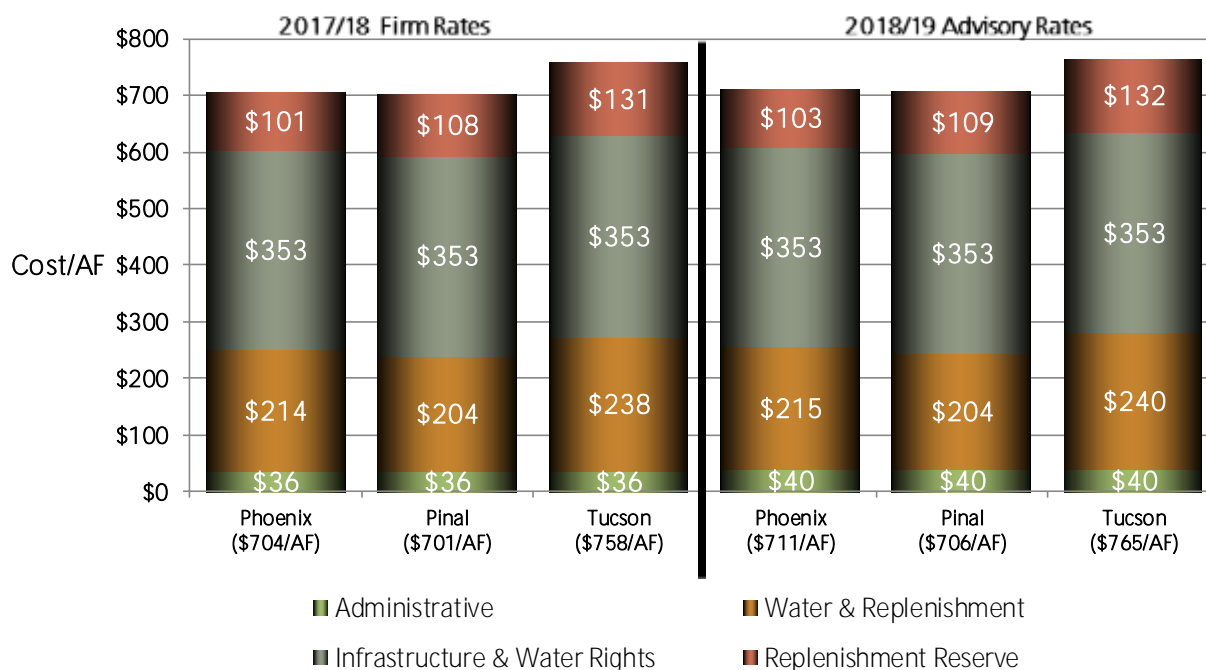
CAGRD was established with the requirement that all of the costs of CAGRD be paid by its members. CAGRD has three primary sources of revenues: annual replenishment assessments, up-front fees and membership dues. In addition, CAGRD accrues interest on the reserves established by these sources. CAGRD rates go into effect following the Board approval at its June Board meeting (see page 8-5).

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.

CAGRD Assessment Rates by AMA



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.

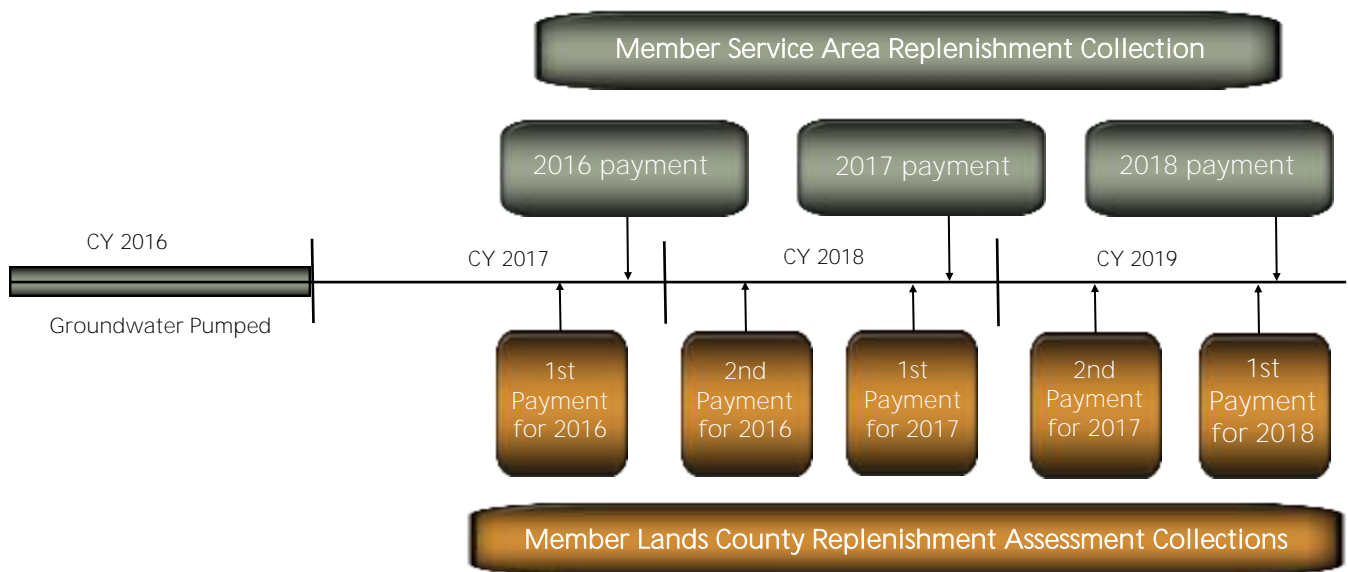
MSAs also pay an enrollment fee; MSA enrollment fees currently are a flat fee of \$5,000 to cover the administration costs of enrolling the MSA in the CAGRD.

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 potential bonding and funds to secure water supplies and related infrastructure.

A cost of service study was conducted in 2015. The study looked at the administrative services provided to CAGRD's different customer classes (i.e., the development community, the homebuilding industry, member service areas, member land water providers, individual homeowners within member lands) and evaluated whether the revenue received from each customer class is appropriate to the services provided. The collection and use of some of the revenues that CAGRD receives are governed by Board policy, while some CAGRD revenues are defined in statute. As a result of this study, some Board policies regarding CAGRD rates and fees have been modified. Other rate components are under consideration for possible adjustment in the future.



EXPENSES

CAGRDR 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 CAGRDR result from purchasing and recharging water to meet existing obligation and acquisition of water rights to ensure satisfaction of future replenishment obligation (see page 5-33).

CAGRDR replenishment assessment rates are established based on the actual volume of excess groundwater delivered to or used by CAGRDR members in the previous year. CAGRDR 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 2016.

WATER SUPPLY PROGRAM

CAGRDR's Plan of Operation outlines a program that identifies a water supply portfolio including general time frames and volumes. In accordance with the plan, CAGRDR has budgeted funds in 2018 and 2019 for the water supply program that can be used to meet its replenishment obligations in the long-term. AWDR has recommended an NIA reallocation for CAGRDR once the final recommendation has been accepted by the Bureau of that recommendation, through the Secretary of the Interior's authority.

CHANGE IN NET POSITION

Net position is anticipated to increase \$27.3 million in 2018 and \$29.3 million in 2019. 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 CAGRDR's Plan of Operation. In addition, CAGRDR is collecting revenues and accruing long-term storage credits in the establishment of its replenishment reserve, which also increases CAGRDR's net position. In effect, CAGRDR 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)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Operating Revenues					
Reimbursements & other operating revenues	29,825	30,191	33,388	39,130	42,187
Total Operating Revenues	\$ 29,825	\$ 30,191	\$ 33,388	\$ 39,130	\$ 42,187
Operating Expenses					
Salaries and related costs	(927)	(1,038)	(1,122)	(1,058)	(1,089)
Depreciation	-	-	-	(61)	(61)
Other operating expenses					
Outside services	(1,949)	(1,654)	(981)	(1,336)	(735)
Overhead	(915)	(1,060)	(1,187)	(1,072)	(1,104)
Water for recharge	(5,715)	(5,461)	(7,154)	(7,141)	(8,158)
Other expenses	(20)	(21)	(32)	(38)	(39)
Subtotal	(8,599)	(8,196)	(9,354)	(9,587)	(10,036)
Total Operating Expenses	(9,525)	(9,234)	(10,476)	(10,706)	(11,186)
Net Operating Income/(Loss)	20,300	20,957	22,912	28,424	31,001
Non-operating Revenues/(Expenses)					
Interest income	90	186	485	591	873
Interest expense	-	-	-	(1,697)	(2,562)
Net Non-operating Income/(Loss)	90	186	485	(1,106)	(1,689)
Change in Net Position	20,389	21,143	23,397	27,318	29,312
Net Position as beginning of period	96,097	116,486	137,629	161,026	188,344
Net Position at end of period	\$ 116,486	\$ 137,629	\$ 161,026	\$ 188,344	\$ 217,656

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT
 REPLENISHMENT OBLIGATION YEAR & CORRESPONDING PURCHASED WATER
 (Acre-Feet)

	Actual	Projected	Budget	Budget
YEAR OBLIGATION ESTABLISHED	2016	2017	2018	2019
PUMPING YEAR (prior to obligation)	2015	2016	2017	2018

Replenishment Obligation by AMA

Phoenix AMA	27,466	27,894	29,843	31,680
Pinal AMA	397	488	439	684
Tucson AMA	2,468	2,540	3,067	3,374
Total Replenishment Obligation	30,331	30,922	33,349	35,738

Contract Replenishment Obligation by AMA

East Phoenix AMA - Scottsdale	1,266	1,100	-	-
Tucson AMA - Metro Water	-	-	-	-
Total Contract Replenishment Obligations	1,266	1,100	-	-

	Actual	Projected	Budget	Budget
YEAR OVER YEAR OBLIGATION ACTIVITY BY AMA	2016	2017	2018	2019

REPLENISHMENT OBLIGATION ACTIVITY

Phoenix AMA

Outstanding Obligation - beginning of the year	11,490	-	(2,263)	4,070
Annual Obligations	27,466	27,894	29,843	31,680
Annual Credits accrued - purchased water and credits	(38,956)	(30,157)	(23,510)	(23,510)
Outstanding Obligation - end of the year	-	(2,263)	4,070	12,240

Pinal AMA

Outstanding Obligation - beginning of the year	307	544	87	39
Annual Obligations	397	488	439	684
Annual Credits accrued - purchased water and credits	(160)	(945)	(487)	(684)
Outstanding Obligation - end of the year	544	87	39	39

Tucson AMA

Outstanding Obligation - beginning of the year	722	-	1,050	2,627
Annual Obligations	2,468	2,540	3,067	3,374
Annual Credits accrued - purchased water and credits	(3,190)	(1,490)	(1,490)	(1,490)
Outstanding Obligation - end of the year	-	1,050	2,627	4,511
	(42,306)	(32,592)	(25,487)	(25,684)

CONTRACT REPLENISHMENT OBLIGATION - ACTIVITY

Phoenix AMA - Scottsdale

Outstanding Obligation - beginning of the year	-	-	-	-
Annual Obligations	1,266	1,100	-	-
Annual Credits accrued - purchased water and credits	(1,266)	(1,100)	-	-
Outstanding Obligation - end of the year	-	-	-	-

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT

RESERVE BALANCES

Cash Basis (Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Water and Replenishment:					
Beginning Fund Balance	\$ 2,737	\$ 3,394	\$ 2,218	\$ 3,277	\$ 5,603
Revenue	7,735	6,298	6,807	6,969	7,556
Water Purchased	(7,082)	(7,484)	(5,773)	(4,692)	(4,912)
Interest Income	4	10	25	49	91
Ending Fund Balance	<u>\$ 3,394</u>	<u>\$ 2,218</u>	<u>\$ 3,277</u>	<u>\$ 5,603</u>	<u>\$ 8,338</u>
Replenishment Reserve:					
Beginning Fund Balance	\$ 471	\$ 141	\$ 638	\$ 181	\$ 453
Revenue	2,248	2,937	3,197	3,422	3,867
Water Purchased	(1,006)	(1,523)	(102)	(211)	(176)
CAP Credits	(1,574)	(919)	(3,558)	(2,942)	(3,477)
Other Credits	-	-	-	-	-
Interest Income	2	2	6	3	7
Ending Fund Balance	<u>\$ 141</u>	<u>\$ 638</u>	<u>\$ 181</u>	<u>\$ 453</u>	<u>\$ 674</u>
Infrastructure and Water Rights:					
Beginning Fund Balance	\$ 49,207	\$ 43,342	\$ 57,747	\$ 61,208	\$ 43,869
Revenue	16,499	20,445	21,475	25,937	28,969
Water Rights Purchases	(1,313)	(399)	-	(36,230)	(7,788)
Long Term Storage Credits	(16,760)	(5,129)	(16,735)	(5,540)	(5,459)
Technical Studies & Other Expenses	(4,369)	(688)	(1,718)	(2,029)	(1,554)
Interest Income	78	176	439	523	790
Ending Fund Balance	<u>\$ 43,342</u>	<u>\$ 57,747</u>	<u>\$ 61,208</u>	<u>\$ 43,869</u>	<u>\$ 58,827</u>
Administrative:					
Beginning Fund Balance	\$ 986	\$ 1,671	\$ 1,974	\$ 1,721	\$ 1,641
Revenue	1,952	1,625	1,335	1,297	1,491
Operating Expenses	(1,269)	(1,328)	(1,604)	(1,389)	(1,377)
Interest Income	2	6	16	12	22
Ending Fund Balance	<u>\$ 1,671</u>	<u>\$ 1,974</u>	<u>\$ 1,721</u>	<u>\$ 1,641</u>	<u>\$ 1,777</u>

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT
 WATER AND REPLENISHMENT RESERVE TRENDS BY AMA
Cash Basis (Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Phoenix AMA					
Beginning Fund Balance	\$ 2,252	\$ 2,705	\$ 1,641	\$ 2,450	\$ 4,408
Revenue	7,066	5,648	6,066	6,184	6,627
Water Purchased	(6,616)	(6,719)	(5,276)	(4,264)	(4,429)
Interest Income	3	7	19	38	72
Ending Fund Balance	<u>\$ 2,705</u>	<u>\$ 1,641</u>	<u>\$ 2,450</u>	<u>\$ 4,408</u>	<u>\$ 6,678</u>
Pinal AMA					
Beginning Fund Balance	\$ 103	\$ 191	\$ 238	\$ 160	\$ 150
Revenue	88	71	104	88	136
Water Purchased	-	(25)	(184)	(100)	(145)
Interest Income	-	1	2	2	2
Ending Fund Balance	<u>\$ 191</u>	<u>\$ 238</u>	<u>\$ 160</u>	<u>\$ 150</u>	<u>\$ 143</u>
Tucson AMA					
Beginning Fund Balance	\$ 382	\$ 498	\$ 339	\$ 667	\$ 1,045
Revenue	581	579	637	697	793
Water Purchased	(466)	(740)	(313)	(328)	(338)
Interest Income	1	2	4	9	17
Ending Fund Balance	<u>\$ 498</u>	<u>\$ 339</u>	<u>\$ 667</u>	<u>\$ 1,045</u>	<u>\$ 1,517</u>
Total - All AMAs					
Beginning Fund Balance	\$ 2,737	\$ 3,394	\$ 2,218	\$ 3,277	\$ 5,603
Revenue	7,735	6,298	6,807	6,969	7,556
Water Purchased	(7,082)	(7,484)	(5,773)	(4,692)	(4,912)
Interest Income	4	10	25	49	91
Ending Fund Balance	<u>\$ 3,394</u>	<u>\$ 2,218</u>	<u>\$ 3,277</u>	<u>\$ 5,603</u>	<u>\$ 8,338</u>

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT
 REPLENISHMENT RESERVE TRENDS BY AMA
 Cash Basis (Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Phoenix AMA					
Beginning Fund Balance	\$ 435	\$ 42	\$ 603	\$ 90	\$ 92
Revenue	1,987	2,636	2,821	2,984	3,379
Water Purchased	(857)	(1,317)	(102)	(112)	(74)
CAP Credits	(1,525)	(759)	(3,237)	(2,870)	(3,392)
Other Credits	-	-	-	-	-
Interest Income	2	1	5	-	1
Ending Fund Balance	<u>\$ 42</u>	<u>\$ 603</u>	<u>\$ 90</u>	<u>\$ 92</u>	<u>\$ 6</u>
Pinal AMA					
Beginning Fund Balance	\$ 9	\$ 1	\$ 3	\$ 3	\$ 10
Revenue	41	38	59	79	80
Water Purchased	-	-	-	-	-
CAP Credits	(49)	(36)	(59)	(72)	(85)
Other Credits	-	-	-	-	-
Interest Income	-	-	-	-	-
Ending Fund Balance	<u>\$ 1</u>	<u>\$ 3</u>	<u>\$ 3</u>	<u>\$ 10</u>	<u>\$ 5</u>
Tucson AMA					
Beginning Fund Balance	\$ 27	\$ 98	\$ 32	\$ 88	\$ 351
Revenue	220	263	317	359	408
Water Purchased	(149)	(206)	-	(99)	(102)
CAP Credits	-	(124)	(262)	-	-
Other Credits	-	-	-	-	-
Interest Income	-	1	1	3	6
Ending Fund Balance	<u>\$ 98</u>	<u>\$ 32</u>	<u>\$ 88</u>	<u>\$ 351</u>	<u>\$ 663</u>
Total - All AMAs					
Beginning Fund Balance	\$ 471	\$ 141	\$ 638	\$ 181	\$ 453
Revenue	2,248	2,937	3,197	3,422	3,867
Water Purchased	(1,006)	(1,523)	(102)	(211)	(176)
CAP Credits	(1,574)	(919)	(3,558)	(2,942)	(3,477)
Other Credits	-	-	-	-	-
Interest Income	2	2	6	3	7
Ending Fund Balance	<u>\$ 141</u>	<u>\$ 638</u>	<u>\$ 181</u>	<u>\$ 453</u>	<u>\$ 674</u>

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)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Other expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Operating Expenses	-	-	-	-	-
Non-operating Revenues/(Expenses)					
Interest income	69	120	133	146	165
Total Non-operating Revenues	69	120	133	146	165
Change in Net Position	69	120	133	146	165
Net Position at beginning of period	8,047	8,116	8,236	8,369	8,515
Net Position at end of period	\$ 8,116	\$ 8,236	\$ 8,369	\$ 8,515	\$ 8,680



CAPTIVE INSURANCE FUND

The CAWCD Insurance Company, Inc. (the “Captive”) is a tax exempt, wholly owned corporation formed in 2003 for the purposes 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)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Operating Revenues					
Reimbursements and other operating revenues	\$ 8,091	\$ 8,391	\$ 8,841	\$ 9,248	\$ 9,734
Total Operating Revenues	8,091	8,391	8,841	9,248	9,734
Operating Expenses					
Other operating expenses					
Outside services	(176)	(175)	(195)	(196)	(204)
Other expenses	(8,795)	(7,573)	(9,031)	(9,055)	(9,395)
Total Operating Expenses	(8,971)	(7,747)	(9,226)	(9,251)	(9,599)
Net Operating Income/(Loss)	(881)	644	(385)	(3)	135
Non-operating Revenues/(Expenses)					
Interest and other income	7	7	7	7	7
Total Non-operating Revenues/(Loss)	7	7	7	7	7
Change in Net Position	(874)	651	(378)	4	142
Net Position as beginning of period	4,391	3,517	4,168	3,790	3,794
Net Position at end of period	3,517	4,168	3,790	3,794	3,936

CAPITAL BUDGET

The Central Arizona Project (CAP) capital budget is comprised of the Capital Improvement Program (CIP) and capital equipment replacements and additions. The 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, secure workforce conditions; and (3) financial impact. 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 ensuring 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 2018 through 2023. The Board of Directors (Board) is asked to approve capital expenditures for 2018 and 2019. Capital equipment and projects shown after 2019 are for advisory purposes to inform the Board and constituents of future capital budget requirements.

This document includes:

- A description of the capital budget process and the role of the Project Steering Committee
- A summary of capital equipment and CIP projects
- A description of each CIP project, justification, total project cost, funding source, operating impact, the strategic issue and key result area (KRA) that the project will support

CAPITAL BUDGET PROCESS

CAPITAL EQUIPMENT

CAP cost centers begin the capital budget process by identifying specific capital equipment needs for the 2018 / 2019 budget. 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.

For equipment shown during the 2020 through 2023 planning period, CAP utilizes the long-range financial plan (LRFP) to identify potential capital equipment that may require funding during the planning horizon. The LRFP is developed by the Finance Department in conjunction with other key staff within CAP.

CAPITAL IMPROVEMENT PROGRAM

As previously mentioned, the CIP must support CAP's Strategic Plan. A detailed list of projects are included in this section.

ADVISORY PROJECTS POST-2019

The CIP projects listed as advisory projects post-2019 are a combination of projects that may potentially begin after 2019 and projects that are still in the evaluation stage. Based on proper justification, funding and available resources, these projects may be approved and implemented out-of-budget within the capital budget guidelines.

BIENNIAL BUDGETING

In the event a new capital spending 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 (refer to pages 4-5 and 4-6). The PSC and management may re-prioritize existing projects in order to accommodate a 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.

PROJECT STEERING COMMITTEE PROCESS

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 all projects regardless of the size and to facilitate communication between project managers and the PSC.

The PSC review and approval process consists of four phases: Concept, Assessment, Planning and Implementation. Each phase of the process entails the development of certain project information, including (1) analysis of alternatives; (2) justification; (3) cost and schedule; (4) anticipated savings, if applicable; (5) resource availability; and (6) any impact on ongoing operating expenses. Once approved by the PSC, the project is included in the budget.

For a project to be approved by the PSC, it must support the Strategic Plan. In addition, it must have sufficient business rationale and merit. Compelling reasons or drivers for proceeding with a CIP project include having an adequate return on investment, health and safety issues, system reliability, capacity requirements and maintenance engineering strategies.

PROJECT STEERING COMMITTEE OBJECTIVES

Provide overall project governance

Ensure consistency with CAP's business strategies and system architecture

Evaluate proposed projects, review possible alternatives and approve or deny the project

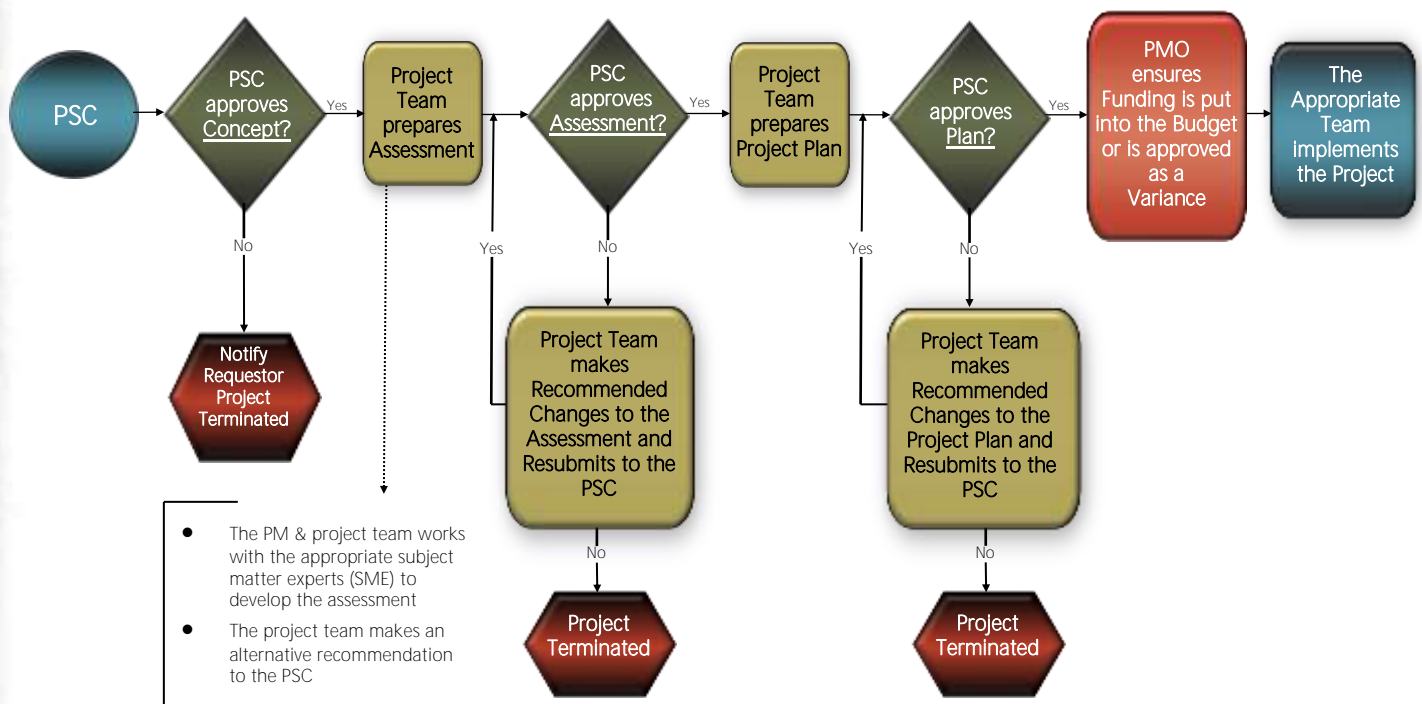
Authorize performing work out-of-budget or delaying work until the next budget cycle

Maintain a current list of proposed and approved projects (Official Project List)

Monitor and provide oversight and feedback to the project team or Project Management Office for these projects

Prioritize PSC projects and other projects, as necessary, with advice from the PMO and subject matter experts

PROJECT STEERING COMMITTEE -- PROCESS



PSC CONTROLS

The PMO manages the implementation phase. Projects with a large variance in schedule or cost from the original plan are required to return to the PSC for review purposes.

Review Guidelines:

Spending threshold - Lesser of:

- The first time the budget is exceeded...\$1M or 30%
- The second time.....\$500K or 15%
- The third time.....\$500K or 10%
- Subsequent variances of 10% or any change comes back to PSC if over \$250k

Schedule variances: Approved schedule is exceeded by 6 months or project delays move the project into a previously unbudgeted year.

PSC PROCESS AND THE BUDGET

Just prior to the beginning of the budget process, typically in April of odd-numbered years, the PSC compiles all of the approved project plans for ongoing capital and extraordinary maintenance projects as well as new projects that have been approved since the last budget was prepared. As a final step before creation of the budget, the PSC reviews the aggregate levels of critical resources such as project managers and construction inspectors and may make necessary adjustments to individual project schedules or other assumptions in order to balance resources and reduce risk. Resource balancing also occurs in a more indirect way during the budget implementation period through management of the overall budget, the exercise of PSC controls on individual projects described above, changes in project schedules that occur over time, the introduction of new projects and/or the cancellation of planned projects.

FUNDING & EXPENDITURES

FUNDING

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 anticipates fluctuation in annual operating and capital expenditures and also maintains an allowance in the event of extraordinary emergency repairs. The “Big R” rate component is designed to reduce major fluctuations in the capital portion of CAP’s annual rates. Significant variability in annual capital expenditures may temporarily impact CAP strategic reserves. During periods of increased capital expenditures, strategic reserves will be used to cover any variance between the established pre-set rates and the actual 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. Central Arizona Groundwater Replenishment District (CAGRD) may also have capital projects that are funded from appropriate CAGRD sources. Funding sources are indicated for each CIP project.

Shown below are the capital expenditures that cover 2015 through 2019. The CIP summary and capital equipment summary are included on the following pages.

CAPITAL EXPENDITURES					
(Millions)	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Capital Improvement Program	\$ 46.2	\$ 32.9	\$ 38.7	\$ 33.3	\$ 19.0
Capital Equipment	3.5	5.7	2.5	4.3	4.1
	\$ 49.7	\$ 38.6	\$ 41.2	\$ 37.6	\$ 23.1



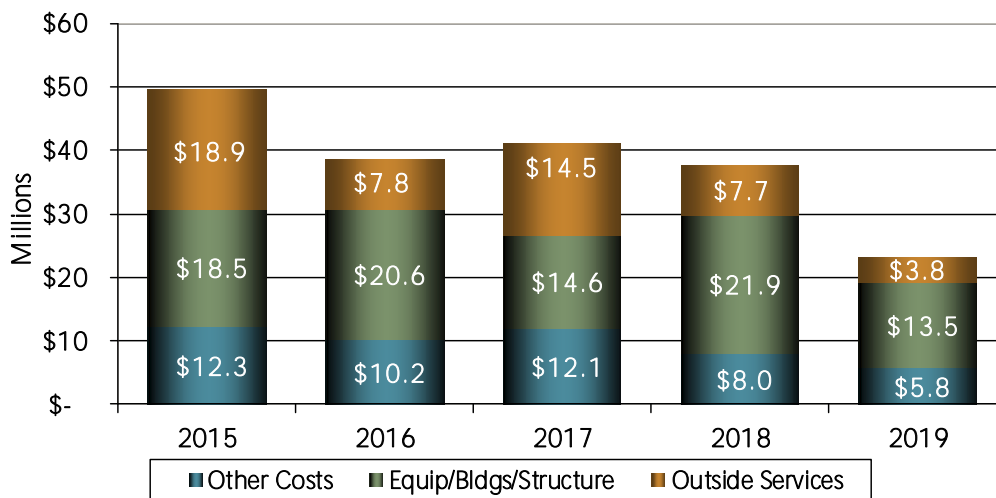
Inside Waddell Pumping Generating Plant

CAPITAL BUDGET SUMMARY

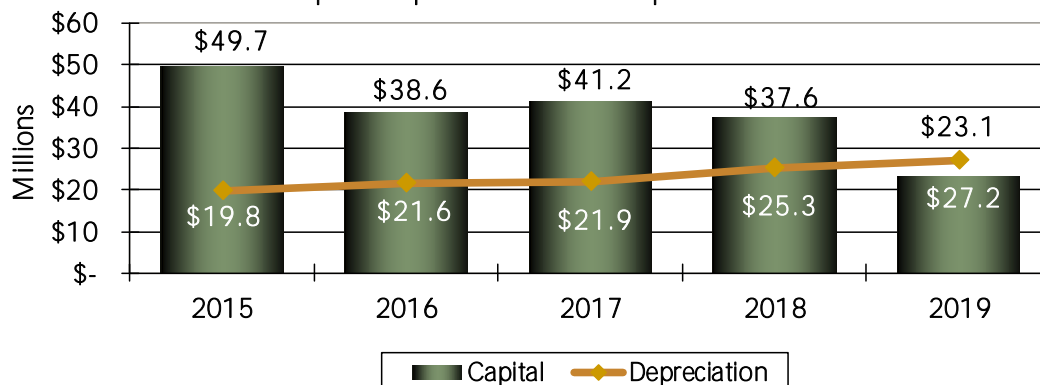
(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Expenditures					
Salaries and related costs	\$ 5,953	\$ 4,817	\$ 4,754	\$ 3,293	\$ 2,738
Equipment, buildings, and structures	18,481	20,567	14,572	21,852	13,450
Other expenses					
Outside services	18,862	7,814	14,492	7,655	3,845
Materials, supplies & other expenses	514	540	451	158	130
Capitalized interest	-	-	2,019	1,303	133
Overhead expenses	5,892	4,854	4,870	3,336	2,775
Subtotal other expenses:	25,268	13,208	21,832	12,452	6,883
Total capital	\$ 49,702	\$ 38,592	\$ 41,158	\$ 37,597	\$ 23,071
Less Reimbursement-Pima Mine Road	(25)	(35)	(3)	-	-
Net capital	\$ 49,677	\$ 38,557	\$ 41,155	\$ 37,597	\$ 23,071

Total Capital Expenditures



Comparison of Capital Expenditures and Depreciation



CAPITAL BUDGET SUMMARY

(Thousands)

	See Page	Total Project Cost	Pre-2018 Project Cost	2018 Budget	2019 Budget
Capital Improvement Program					
Backup Power System Replacements at Checks, Turnouts & Microwave Sites	6-11	\$ 5,986	\$ 1,633	\$ 1,282	\$ 1,417
Building Access Modifications at M. Wilmer, Salt Gila, Twin Peaks & TFO	6-12	880	-	253	627
Bus Disconnect Switch Replacement at Bouse, Little Harquahala & Hassayampa	6-13	845	635	210	-
Centralized Reliability Information Management System	6-14	500	350	150	-
Circuit Breakers and Compressed Air System Replacement at Mark Wilmer	6-15	7,179	2,502	1,056	1,794
Computer-Based Control System Replacement at Waddell	6-16	1,293	1,263	30	-
Condition-Based Monitoring	6-17	7,692	6,525	501	493
Data Integration Architecture	6-18	310	-	140	170
Discharge Valve Replacement at Black Mountain & Snyder Hill	6-19	3,354	3,285	69	-
Discharge Valve Replacement at Brady, Picacho & Red Rock	6-19	2,119	1,747	372	-
Electromechanical Relay Replacement - Phase 1	6-20	7,912	2,267	2,985	2,660
Elevator System Replacement - Phase 2	6-21	6,937	-	262	2,180
Engineering Mini & Design Phase Projects	6-31	1,439	-	389	1,050
Fire Protection at Brady, Picacho, Red Rock, Black Mountain & Snyder Hill	6-22	7,344	1,257	6,067	20
Fire Protection CO2 Modification at Waddell	6-23	1,442	-	623	819
Fuel System Replacement at Headquarters	6-24	1,980	422	1,558	-
Governor Controls Replacement at Waddell	6-25	2,725	297	1,062	1,366
HVAC Replacement at Twin Peaks & Sandario	6-26	3,554	1,129	2,425	-
Industrial Water Treatment at Brady, Picacho & Red Rock	6-27	2,942	2,795	147	-
Maintenance Building Enclosures at Headquarters	6-28	1,165	651	514	-
Maintenance Facility at South Central	6-29	1,286	1,253	33	-
Motor Exciter and Control Unit Replacement at Bouse, LHQ, HSY & SGL	6-30	8,972	98	589	2,387
Motor Exciter and Control Unit Replacement at Brady, Picacho & Red Rock	6-30	4,475	2,344	656	662
Motor Exciter and Control Unit Replacement at Waddell	6-30	2,118	1,396	722	-
Sewage System Replacement at Little Harquahala	6-32	440	378	62	-
Siphon Stop Logs at Cunningham, Gila & Santa Cruz	6-33	2,489	287	2,166	36
Sump Pump Water Level Controls at All Pumping Plants	6-34	2,041	2	281	749
Technology Mini-Projects	6-31	1,002	-	637	365
Transformer Replacement at McCullough	6-35	3,253	-	-	378
Transmission Line APS	6-36	29,654	27,579	2,075	-
Transmission Line Hassayampa Tap Connection	6-36	13,301	8,591	4,108	602
Transmission Line Rebuild ED2 to Saguro	6-37	11,990	10,779	1,211	-
Transmission Line Valencia to Black Mountain	6-38	1,171	-	-	1,171
Unit Breaker Replacement at Picacho & Red Rock	6-39	700	-	700	-
Total Capital Projects				\$ 33,335	\$ 18,946
Advisory Projects post-2019					
Cathodic Protection Anode Bed Replacement		8,850	-	-	-
Chillers Warehouse at Headquarters		2,000	-	-	-
Commission Redundant Gates at Central & South Main Turnouts		1,424	-	-	-
Cooling Water Treatment at Mark Wilmer		5,000	-	-	-
Discharge Valve Replacement at Bouse, Little Harquahala & Hassayampa		6,000	-	-	-
Document Management		5,800	-	-	-
Fire Protection at South Plants - Phase 2		4,500	-	-	-
Flowmeters		2,146	-	-	-
Hydrology Improvements at Dikes & Over/Under Shoots		3,000	-	-	-
Industrial Water at Bouse, Little Harquahala & Hassayampa		5,670	-	-	-
Lobby and Office Tenant Improvement at Mark Wilmer		831	-	-	-
Microwave System Replacement		4,300	-	-	-
Motor Rewinds		13,376	-	-	-
Multi-Site Covered Vehicle Parking		594	-	-	-
PLC-5 Replacement at Waddell		2,464	-	-	-
Potable Water System at Sandario		912	-	-	-
Recovery Projects		4,000	-	-	-
Sand Filter System Replacement at Hassayampa		559	-	-	-
SCADA Replacement at Headquarters		2,300	-	-	-
Static Exciter Upgrade at Mark Wilmer		3,000	-	-	-
Transmission - Harcuvar Project/Other		3,631	-	-	-
Trash Rakes at Mark Wilmer		5,000	-	-	-
Trash Rake Guide Replacement at Salt Gila		600	-	-	-
Turnout Portable Bypass Pumping		1,500	-	-	-
Unbundle Local Alarms, PLC IO Reliability Optimization, & Control IO Relocation		1,500	-	-	-
Uninterruptible Power Supplies at Waddell		500	-	-	-
VoIP Telephone Upgrade		600	-	-	-
Total Advisory Projects post-2019				-	-
Total Capital Improvement Plan				\$ 33,335	\$ 18,946
Capital Equipment				\$ 4,262	\$ 4,125
Total Capital Budget				\$ 37,597	\$ 23,071

CAPITAL BUDGET SUMMARY

(Thousands)

	2020 Advisory	2021 Advisory	2022 Advisory	2023 Advisory	Balance
Capital Improvement Program					
Backup Power System Replacements at Checks, Turnouts & Microwave Sites	\$ 878	\$ 776	\$ -	\$ -	\$ -
Building Access Modifications at M.Wilmer, Salt Gila, Twin Peaks & TFO	-	-	-	-	-
Bus Disconnect Switch Replacement at Bouse, Little Harquahala & Hassayampa	-	-	-	-	-
Centralized Reliability Information Management System	-	-	-	-	-
Circuit Breakers and Compressed Air System Replacement at Mark Wilmer	1,827	-	-	-	-
Computer-Based Control System Replacement at Waddell	-	-	-	-	-
Condition-Based Monitoring	173	-	-	-	-
Data Integration Architecture	-	-	-	-	-
Discharge Valve Replacement at Black Mountain & Snyder Hill	-	-	-	-	-
Discharge Valve Replacement at Brady, Picacho & Red Rock	-	-	-	-	-
Electromechanical Relay Replacement - Phase 1	-	-	-	-	-
Elevator System Replacement - Phase 2	2,791	1,522	182	-	-
Engineering Mini & Design Phase Projects	-	-	-	-	-
Fire Protection at Brady, Picacho, Red Rock, Black Mountain & Snyder Hill	-	-	-	-	-
Fire Protection CO2 Modification at Waddell	-	-	-	-	-
Fuel System Replacement at Headquarters	-	-	-	-	-
Governor Controls Replacement at Waddell	-	-	-	-	-
HVAC Replacement at Twin Peaks & Sandario	-	-	-	-	-
Industrial Water Treatment at Brady, Picacho & Red Rock	-	-	-	-	-
Maintenance Building Enclosures at Headquarters	-	-	-	-	-
Maintenance Facility at South Central	-	-	-	-	-
Motor Exciter and Control Unit Replacement at Bouse, LHQ, HSY & SGL	2,178	1,878	1,842	-	-
Motor Exciter and Control Unit Replacement at Brady, Picacho & Red Rock	766	47	-	-	-
Motor Exciter and Control Unit Replacement at Waddell	-	-	-	-	-
Sewage System Replacement at Little Harquahala	-	-	-	-	-
Siphon Stop Logs at Cunningham, Gila & Santa Cruz	-	-	-	-	-
Sump Pump Water Level Controls at All Pumping Plants	992	17	-	-	-
Technology Mini-Projects	-	-	-	-	-
Transformer Replacement at McCullough	1,301	1,301	273	-	-
Transmission Line APS	-	-	-	-	-
Transmission Line Hassayampa Tap Connection	-	-	-	-	-
Transmission Line Rebuild ED2 to Saguaro	-	-	-	-	-
Transmission Line Valencia to Black Mountain	-	-	-	-	-
Unit Breaker Replacement at Picacho & Red Rock	-	-	-	-	-
Total Capital Projects	\$ 10,906	\$ 5,541	\$ 2,297	\$ -	\$ -
Advisory Projects post-2019					
Cathodic Protection Anode Bed Replacment	350	1,000	1,500	1,500	4,500
Chillers Warehouse at Headquarters	500	1,500	-	-	-
Commission Redundant Gates at Central & South Main Turnouts	-	-	1,201	223	-
Cooling Water Treatment at Mark Wilmer	-	1,000	2,000	2,000	-
Discharge Valve Replacement at Bouse, Little Harquahala & Hassayampa	2,000	2,000	2,000	-	-
Document Management	2,300	2,000	500	500	500
Fire Protection at South Plants - Phase 2	-	-	-	1,125	3,375
Flowmeters	-	-	209	1,386	551
Hydrology Improvements at Dikes & Over/Under Shoots	-	3,000	-	-	-
Industrial Water at Bouse, Little Harquahala & Hassayampa	-	1,890	1,890	1,890	-
Lobby and Office Tenant Improvement at Mark Wilmer	-	-	430	388	13
Microwave System Replacement	-	2,150	2,150	-	-
Motor Rewinds	1,167	1,202	1,238	4,275	5,494
Multi-Site Covered Vehicle Parking	200	394	-	-	-
PLC-5 Replacement at Waddell	364	1,500	600	-	-
Potable Water System at Sandario	373	539	-	-	-
Recovery Projects	1,000	1,000	1,000	1,000	-
Sand Filter System Replacement at Hassayampa	559	-	-	-	-
SCADA Replacement at Headquarters	-	300	1,200	800	-
Static Exciter Upgrade at Mark Wilmer	-	-	3,000	-	-
Transmission - Harcuvar Project/Other	-	-	1,029	1,301	1,301
Trash Rakes at Mark Wilmer	1,000	2,000	2,000	-	-
Trash Rake Guide Replacement at Salt Gila	300	300	-	-	-
Turnout Portable Bypass Pumping	-	1,500	-	-	-
Unbundle Local Alarms, PLC IO Reliability Optimization, & Control IO Relocation	-	-	450	1,000	50
Uninterruptible Power Supplies at Waddell	-	500	-	-	-
VoIP Telephone Upgrade	600	-	-	-	-
Total Advisory Projects post-2019	10,713	23,775	22,397	17,388	
Total Capital Improvement Plan	\$ 21,619	\$ 29,316	\$ 24,694	\$ 17,388	
Capital Equipment	\$ 4,575	\$ 4,047	\$ 4,171	\$ 4,623	
Total Capital Budget	\$ 26,194	\$ 33,363	\$ 28,865	\$ 22,011	

CAPITAL EQUIPMENT SUMMARY

(Thousands)

	2018 Budget	2019 Budget	2020 Advisory	2021 Advisory	2022 Advisory	2023 Advisory
Capital Equipment						
Replacements						
30 Ton Boom Truck	\$ 400	\$ -				
Battery Systems	25	35				
Data Storage	125	-				
Discharge valves	435	595				
Domestic Water Strainer	30	-				
Emergency Fire Communication Alert System	180	-				
HVAC Fan Coil Unit	168	-				
Lathe	-	100				
Motor Circuit Evaluator	54	-				
Multifunction Copiers	-	35				
Network and Server Refresh	225	1,612				
Press Brake	-	100				
Roll Power	100	-				
Service Trucks with Crane	150	125				
Switchyard motor	90	-				
Utility vehicles (service truck with crane/trailer)	-	188				
Vehicles (trucks/SUVs)	1,212	1,055	1,100	1,133	1,167	1,202
Computer, servers, equipment & software			2,175	1,575	1,625	2,000
Field, communication & office equipment			1,300	1,339	1,379	1,421
Total Replacements	\$ 3,194	\$ 3,845	\$ 4,575	\$ 4,047	\$ 4,171	\$ 4,623
Additions						
Barrier Buoy	\$ 70	\$ -				
Breaker Analyzer	35	-				
Data Domain Storage	-	170				
Electronic Tester Megger	-	50				
Excavator	290	-				
GPS Motor Grader	-	60				
Internal Pipe Blaster	100	-				
Pipe Bender	25	-				
Remote Racking	30	-				
Utility vehicles (transport trailer/trans pump)	50	-				
Vehicles (SUV 4X4)	38	-				
Weed Boat Harvester	430	-				
Total Additions	\$ 1,068	\$ 280	\$ -	\$ -	\$ -	\$ -
Total Capital Equipment	\$ 4,262	\$ 4,125	\$ 4,575	\$ 4,047	\$ 4,171	\$ 4,623

BACKUP POWER SYSTEM REPLACEMENT 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: 4th Quarter 2021
TOTAL PROJECT COST: \$ 5,986,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 5,986	\$ 1,633	\$ 1,282	\$ 1,417	\$ 878	\$ 776	\$ -	\$ -	\$ -

DESCRIPTION:

This project addresses CAP's need for the replacement of backup power 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 VDC to - 48 VDC. The existing charges will be replaced with an integrated uninterruptible power supply (UPS) system 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.



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 preventive 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.

BLDG ACCESS MODIFICATIONS - MARK WILMER, SALT GILA, TWIN PEAKS & TUCSON FIELD OFFICE

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610513

START DATE: 1st Quarter 2018
COMPLETION DATE: 4th Quarter 2019
TOTAL PROJECT COST: \$ 880,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 880	\$ -	\$ 253	\$ 627	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: There are four CAP locations that visitors typically tour: Mark Wilmer, Salt Gila, Twin Peaks and the Tucson Field Office that require improvements in order to comply with access requirements and provide needed accommodations.

JUSTIFICATION: The pumping plants were not originally built to meet accessibility standards and require renovations to bring them into compliance. Based upon input from CAP leadership, an accessibility analysis was conducted to define the scope and cost of needed renovations at all four locations.

OPERATING IMPACT: No significant operating impact identified.

SOCIAL IMPACT: Providing a safe and accessible access to these sites will allow visitors to continue to experience CAP's pumping plants and offices.

ENVIRONMENTAL IMPACT: No significant environmental impact identified.



BUS DISCONNECT SWITCH REPLACEMENT AT BOUSE, LITTLE HARQUAHALA & HASSAYAMPA

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
 KEY RESULT AREA: Project Reliability
 PROJECT #: 610500

START DATE: 1st Quarter 2016
 COMPLETION DATE: 4th Quarter 2018
 TOTAL PROJECT COST: \$ 845,000
 FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 845	\$ 635	\$ 210	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The 6.9kV bus tie switches at Bouse, Little Harquahala and Hassayampa are used to isolate or connect different busses as needed to accommodate transformer outages. CAP has been experiencing problems with some specific switches; the switches in question suffer from overheating or failure to successfully operate, resulting in an increased number of outages for repair and maintenance. New bus tie switches will be installed replacing the troublesome bus disconnect switches at Bouse, Little Harquahala and Hassayampa.

JUSTIFICATION: Replacement of these switches will reduce the number of outages and the maintenance costs associated with their continued use.

OPERATING IMPACT: Each switch will be fabricated to fit within existing switchgear such that modification to the existing cabinet is minimal.

SOCIAL IMPACT: Replacement to reliable and efficient switches will reduce the amount of maintenance downtime and contributes to the reliability of water deliveries to customers.

ENVIRONMENTAL IMPACT: No significant environmental impact identified.



CENTRALIZED RELIABILITY INFORMATION MANAGEMENT SYSTEM

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
 KEY RESULT AREA: Project Reliability
 PROJECT #: 610503

START DATE: 3rd Quarter 2016
 COMPLETION DATE: 3rd Quarter 2018
 TOTAL PROJECT COST: \$ 500,000
 FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 500	\$ 350	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

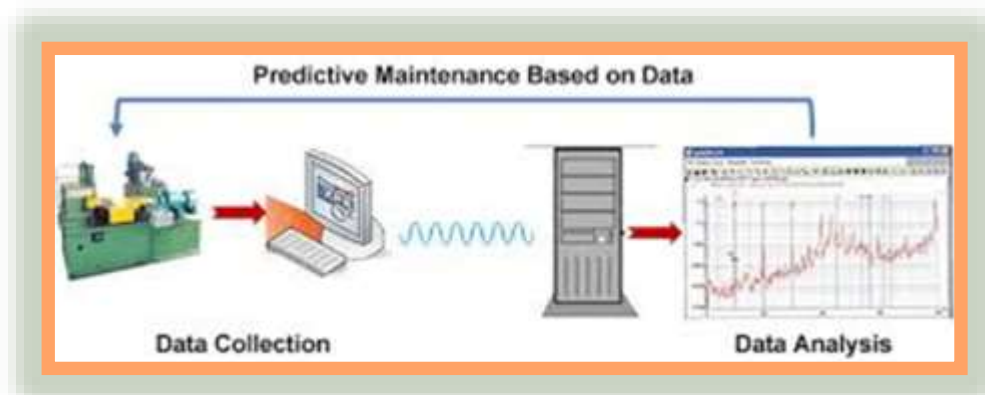
DESCRIPTION: The Centralized Reliability Information Management System, known as Systems Maintenance and Reliability Technology (SMART), addresses maximizing maintenance-related data integrity while minimizing data redundancy. SMART analyzes and benchmarks software systems and methodologies against industry best practices.

JUSTIFICATION: SMART will provide best solution rationalization. It will organize maintenance data, increasing reliability by providing flexible and effective analysis, software health visualizations, trend identification, alerts and reports.

OPERATING IMPACT: SMART provides better data preservation than other types of databases due to often-included fault-tolerant setup. When kept in the same location, data is easier to be changed, re-organized, mirrored or analyzed.

SOCIAL IMPACT: Lowered risk of outages enhances CAP's ability to provide customers with water deliveries as scheduled.

ENVIRONMENTAL IMPACT: Implementing SMART will assist in reducing unexpected system failures and the chance of an ancillary damage occurrence.



CIRCUIT BREAKERS & COMPRESSED AIR SYSTEM REPLACEMENT AT MARK WILMER

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610499

START DATE: 1st Quarter 2016
COMPLETION DATE: 4th Quarter 2020
TOTAL PROJECT COST: \$ 7,179,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 7,179	\$ 2,502	\$ 1,056	\$ 1,794	\$ 1,827	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: This work will include project management, engineering, procurement, demolition and installation of both the temporary replacement for the Air-Blast circuit breaker compressed air system and the new circuit breakers (CB) for all six units at Mark Wilmer. Phase 1: Replace the Air-Blast circuit breaker compressed air System (Summer 2016); Phase 2: Replace the existing Air-Blast breakers with new insulated CBs (Summer Outages of 2017, 2018 and 2019).

JUSTIFICATION: Six main units at Mark Wilmer are switched by air-blast circuit breakers. The six unit air-blast CBs are connected to a single dedicated "Air-blast circuit breaker" compressed air system. This system provides the stored energy to make and break the circuits, and provides compressed air to each of the breakers to snuff arcing during operation. The reliability of both systems is critically important to the continued operation of the pump units at Mark Wilmer. These air-blast CBs are no longer manufactured. The circuit breakers and their associated disconnect switches include numerous components that have been reaching their end-of-life and require a complex compressed air system to function. Also, finding replacement parts and service is becoming increasingly difficult and time-consuming due to obsolescence or surplus type inventory. The ability to keep this system properly operating with continued reliability is in jeopardy.

OPERATING IMPACT: The construction will be synchronized with planned outages for unit project managers and cavitation repair schedule. The outcome will be lower maintenance requirements by approximately \$96,000 annually with spare parts that have a high demand salvage value of approximately \$955,000.

SOCIAL IMPACT: Improvements in employees' safety from insulated switchgear include fault risk reduction, improved operator protection as well as additional embedded safety features.

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



COMPUTER-BASED CONTROL SYSTEM (CBCS) REPLACEMENT AT WADDELL

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610468

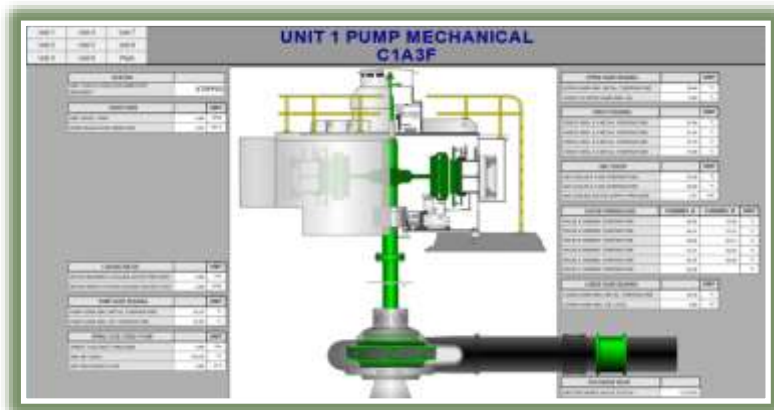
START DATE: 1st Quarter 2016
COMPLETION DATE: 1st Quarter 2018
TOTAL PROJECT COST: \$ 1,293,000
FUNDING SOURCE: "Big R"

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

	Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$	1,293	\$ 1,263	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	-

DESCRIPTION:

Waddell has an in-plant supervisory control and data acquisition (SCADA) control system referred to as the Computer-Based Control System (CBCS). The CBCS is the local human-machine interface Programmable Logic Controller (PLC). It is used regularly for switching, troubleshooting and operating the plant locally if a problem with SCADA occurs. The CBCS provides a workstation at each unit control panel, the plant control and switchyard control rooms. The last upgrade was performed in 2003; the computer hardware is now obsolete and failing. Operating the plant manually is not advisable, as needed information such as net head, flow and tunnel status are not easily available. The CBCS is the means by which the plant is locally controlled; therefore, it is vital to the continued safe and reliable operation of the plant. The system runs GE Fanuc software and has a number of servers, workstations, and displays. The hardware to be replaced is three servers, three client workstations, eight field touchscreen workstations, and one laptop with upgrade/replacement occurring for software and related graphics.



JUSTIFICATION:

The Waddell CBCS is required for safe, reliable plant function. As the primary backup system, Waddell is a unique location where reliability has an additional factor of importance.

OPERATING IMPACT:

Project work is scheduled to run parallel to the existing system with no anticipated outages and provides CAP the ability to deliver up-to-date technology.

SOCIAL IMPACT:

The CBCS project improves the reliability of equipment for customer water deliveries and decreases the risk for unplanned outages.

ENVIRONMENTAL IMPACT:

There is no significant environmental impact with this project.

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: 1st Quarter 2020
TOTAL PROJECT COST: \$ 7,692,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 7,692	\$ 6,525	\$ 501	\$ 493	\$ 173	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: CAP has begun to implement Reliability-Centered Maintenance, which includes Predictive Maintenance (PdM) and Condition-Based Monitoring (CBM). PdM promotes maximum equipment availability and minimum maintenance costs, and helps facilitate the planning and scheduling of equipment outages so that operational effectiveness is not impacted. CBM facilitates PdM by providing leading indicators of equipment failures or degradation. This project will implement three different CBM techniques on the pumping units at all CAP pumping plants: (1) install a motor test and analysis port that will allow online power and efficiency testing on each motor; (2) install Iris Power Partial Discharge Analysis connection kits to allow online conductor insulation testing; and (3) install Vibration Analysis sensors and software to measure for imbalance, misalignment, cavitations and other symptoms affecting motor and pump efficiency.

JUSTIFICATION: This project aligns with the Maintenance Excellence effort and allows CAP to better manage and predict failures of pump units, lessening the occurrence of unscheduled outages.

OPERATING IMPACT: Pump and motor units are essential for water conveyance. This project improves the operational availability of units to achieve required water deliveries by reducing the likelihood of unplanned costly catastrophic failure.

SOCIAL IMPACT: Lowering the risk of outages increases CAP's ability to provide customers with water deliveries as scheduled.

ENVIRONMENTAL IMPACT: Improved monitoring of the CAP system allows a more efficient method for operation and maintenance, reducing excessive use of power due to malfunctioning equipment.



DATA INTEGRATION ARCHITECTURE

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610511

START DATE: 2nd Quarter 2018
COMPLETION DATE: 4th Quarter 2019
TOTAL PROJECT COST: \$ 310,000
FUNDING SOURCE: "Big R"

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

	Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$	310	\$ -	\$ 140	\$ 170	\$ -	\$ -	\$ -	\$ -	-

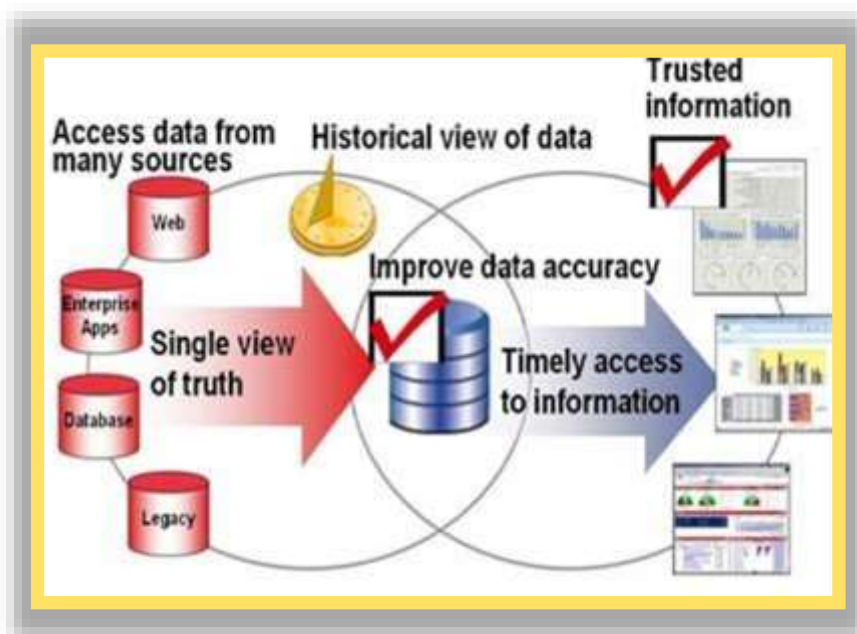
DESCRIPTION: CAP's current application integrations are proprietary point-to-point solutions that are expensive, highly-customized and difficult to maintain. Each integration requires a unique developer skillset. This impacts the ability to maintain services, improve reliability and deliver new features. It ties CAP to existing software vendors and diminishes the ability to negotiate favorable contracts. The current architecture also requires a growing variety of reporting and dashboard tools.

JUSTIFICATION: Implementing a standard data integration architecture will enable reusable application integrations, enterprise dashboards, facilitate mobile access to enterprise data and integration for future cloud applications (SaaS). Data Integration Architecture will limit the growing integration cost and effort, along with consolidation of redundant applications.

OPERATING IMPACT: IT grapples with an ever-increasing variety of integration and reporting technologies. Data Integration Architecture will speed up the ability to introduce new automated business functions.

SOCIAL IMPACT: No significant social impact identified.

ENVIRONMENTAL IMPACT: No significant environmental impact identified.



DISCHARGE VALVE REPLACEMENT AT BLACK MTN, SNYDER HILL, BRADY, PICACHO & RED ROCK

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
 KEY RESULT AREA: Project Reliability
 PROJECT #: 610445 / 610453

START DATE: 2nd Quarter 2013
 COMPLETION DATE: 4th Quarter 2018
 TOTAL PROJECT COST: \$ 5,473,000
 FUNDING SOURCE: "Big R"

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

	Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$	5,473	\$ 5,032	\$ 441	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: Various valves at southern pumping plants are wearing out and malfunctioning. The valves are obsolete and the original equipment manufacturer (OEM) is not available for support. Check valves at Black Mountain and Snyder Hill no longer prevent reverse flow conditions and do not adequately protect pump units. Unit inlet and discharge valves do not seat correctly and have issues with leakage. The unit discharge valves at Brady, Picacho and Red Rock have not met equipment lifetime expectations and are being replaced with new butterfly valves that have a seat-in-body design.

JUSTIFICATION: The leaking inlet and discharge valves cause unsafe maintenance procedures and the malfunctioning check valves could lead to costly pump shaft/motor repairs. Maintenance costs due to frequent and recurring overhauls can be mitigated with the installation of new valves.

	Total	Pre-2018	2018	2019	Balance
Black Mtn, Snyder Hill	\$ 3,354	\$ 3,285	\$ 69	\$ -	\$ -
Brady, Picacho, Red Rock	2,119	1,747	372	-	-
	\$ 5,473	\$ 5,032	\$ 441	\$ -	\$ -

OPERATING IMPACT: Recurring maintenance costs associated with the valves should be reduced after replacement work is complete. Functional valves are critical to reliable plant operations.

SOCIAL IMPACT: Reliable and efficient equipment reduces maintenance downtime and contributes to the reliability of deliveries to customers.

ENVIRONMENTAL IMPACT: New valves provide a more efficient system that optimizes the energy used to deliver water.



ELECTROMECHANICAL RELAY REPLACEMENT - PHASE 1

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610494

START DATE: 1st Quarter 2016
COMPLETION DATE: 4th Quarter 2019
TOTAL PROJECT COST: \$ 7,912,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 7,912	\$ 2,267	\$ 2,985	\$ 2,660	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

Electromechanical relays are reliable and effective, but have a limited life span of 30 years under good conditions and proper maintenance. Most relays at the plants are approaching 30 years in service and need to be replaced due to age and obsolescence concerns. This project will follow the pilot installation at Salt Gila, which demonstrated that multi-function digital relays could be integrated into existing plant protective systems to replace electromechanical relays. 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. This connectivity will allow for additional functionality and remote data collection for configuration control, fault analysis and reliability analysis. The work will include project management, engineering, procurement, demolition and installation of new relays for similar groups of plants.



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. Therefore, relays should be replaced prior to the end of their useful life and before they fail completely.

OPERATING IMPACT:

Installing new relays will reduce maintenance costs annually by approximately \$60,000, increase diagnostic capabilities and provide more complete delivery equipment protection.

SOCIAL IMPACT:

There is risk associated with continuing to utilize the existing relays to protect critical infrastructure. Failure to operate during a fault condition could result in damage to equipment that could cause them to be out of service for a prolonged period of time which may impact CAP's ability to deliver water.

ENVIRONMENTAL IMPACT: There is limited environmental impact associated with this work.

ELEVATOR SYSTEM REPLACEMENT - 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: \$ 6,937,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 6,937	\$ -	\$ 262	\$ 2,180	\$ 2,791	\$ 1,522	\$ 182	\$ -	\$ -

DESCRIPTION: The elevators at CAP were installed over 20 years ago. A priority list of fifteen elevators was previously established and the top five elevators were upgraded between 2014 and 2016. This phase will address seven elevators at Mark Wilmer, Bouse, Hassayampa, Waddell, Red Rock, Brawley and San Xavier.

JUSTIFICATION: The elevators are essential for safely transporting materials and personnel to and from different levels within the facilities. The current condition of the elevators is not sufficient to meet reliability requirements.

OPERATING IMPACT: The replacement of the elevator components in this project should lower the risk of elevator outages at the plants, decrease the associated maintenance costs to the elevator system and increase the operational efficiency and reliability of the system overall.

SOCIAL IMPACT: Employees will need to be trained on the new operation of the upgraded elevator controls within each plant. Upgrading the elevator control components minimizes the downtime and unplanned outages due to elevator failures; this creates a safer and more reliable work environment.

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



FIRE PROTECTION AT BRADY, PICACHO, RED ROCK, BLACK MOUNTAIN & SNYDER HILL

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
 KEY RESULT AREA: Project Reliability
 PROJECT #: 610491

START DATE: 4th Quarter 2016
 COMPLETION DATE: 1st Quarter 2019
 TOTAL PROJECT COST: \$ 7,344,000
 FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 7,344	\$ 1,257	\$ 6,067	\$ 20	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

The Fire Protection Systems at all five plants have been subject to assessment and replacement over the past ten years. Modification to the existing system requires updating to current CAP Fire Protection Philosophy design guides, applicable building and National Fire Protection Association (NFPA) codes and standards. These five plants currently have the following equipment maintenance issues that require replacement:
 obsolete detection equipment, notification equipment, clean agent control panels and degraded fire protection pumps.



JUSTIFICATION:

CAP's priorities are life safety and equipment reliability; this project upgrades both at the five pumping plants. Additional benefits are increased capability of detection, decrease in response and travel time to the plants, replacement of the degrading pumps and replacement of the deluge system.

OPERATING IMPACT:

Fiber optics improves operating efficiency and reliability in the monitoring system, while reducing the possibility of equipment malfunction and system outages. The ideal is to maximize performance, efficiency and cost-effectiveness while providing long-term, sustainable value from a building operations and management perspective.

SOCIAL IMPACT:

Project provides direct benefits to CAP employee safety, improves the reliability of equipment and decreases the risk of unplanned outages.

ENVIRONMENTAL IMPACT:

Proper fire detection and suppression assists in guarding against the occurrence of a fire event.

FIRE PROTECTION CO₂ MODIFICATION AT WADDELL

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610510

START DATE: 1st Quarter 2018
COMPLETION DATE: 3rd Quarter 2019
TOTAL PROJECT COST: \$ 1,442,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 1,442	\$ -	\$ 623	\$ 819	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

The pump/generators at Waddell, units 2, 3, 6 and 7, were originally protected by high pressure CO₂ fire suppression systems. These systems now consist of multiple non-functioning, obsolete and unreliable components. This project will remove the existing high pressure CO₂ system and replace all mechanical and electrical components of the existing system, including all piping, nozzles, valves, solenoids, detection and notification devices, tanks and control panels. The existing CO₂ cylinders will be replaced by new nitrogen and water tanks that will be common to all four systems. The project will also install a network gateway/annunciator panel and ONYX Work Station so the system communicates and is monitored by the ONYX Master Station at Headquarters.



JUSTIFICATION:

Existing CO₂ systems pose a safety hazard to plant personnel and expose major equipment to additional damage due to the non-functioning fire suppression system.

OPERATING IMPACT:

Lowers the risk of personnel injury in the event of a fire, decreases maintenance costs, and increases protected system reliability in that there will now be functional protection for a quicker response.

SOCIAL IMPACT:

Plant personnel operate in a safer environment.

ENVIRONMENTAL IMPACT:

Because nitrogen and water are natural elements, this system has no greenhouse gases.

FUEL SYSTEM REPLACEMENT AT HEADQUARTERS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610496

START DATE: 3rd Quarter 2016
COMPLETION DATE: 4th Quarter 2018
TOTAL PROJECT COST: \$ 1,980,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 1,980	\$ 422	\$ 1,558	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The proposed location of the new fuel island would be near the existing diesel fuel station at Headquarters. The current unleaded and diesel fuel tanks would be completely demolished and removed from the site; the above-ground fuel delivery equipment, hoses and associated controls would be removed as well. A new fuel station would then be built on site to serve both unleaded and diesel fuel demands.

JUSTIFICATION: This project will address the following major deficiencies:

Unleaded Fuel System: (a) concrete containment vault not water tight; (b) overfill protection equipment not functional; (c) no annular space emergency vent; (d) vapor sensing is in the wrong location; and (e) no liquid sump sensor.

Diesel Fuel System: (a) paint failure on top of tank; (b) no code-required interstitial space leak sensor; (c) emergency shutdown disconnect not per code; and (d) existing tank is not compliant with present IFC/City of Phoenix requirements for a UL2085 tank – a replacement is required.



OPERATING IMPACT: Replacement parts will now be available, and code and safety violations would be resolved. Diesel fuel on site acts as a backup storage for the generator which is the backup power source for the control center.

SOCIAL IMPACT: Employee safety is improved with properly designed emergency shut off and emergency monitoring/alarm system.

ENVIRONMENTAL IMPACT: New equipment and monitoring will reduce the risk potential.

GOVERNOR CONTROLS REPLACEMENT AT WADDELL

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610498

START DATE: 1st Quarter 2017
COMPLETION DATE: 3rd Quarter 2019
TOTAL PROJECT COST: \$ 2,725,000
FUNDING SOURCE: "Big R"

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

Total		Pre-2018		2018		2019		2020		2021		2022		2023		Balance	
\$	2,725	\$	297	\$	1,062	\$	1,366	\$	-	\$	-	\$	-	\$	-	\$	-

DESCRIPTION:

The pump/generators at Waddell, units 2, 3, 6 and 7, incorporate a governor system that regulates the speed and flow of water through these units. The electronic control portion of the governors is starting to fail and the parts have become obsolete and unavailable. The signal converter card helps regulate the speed and load on the units and has a microchip which has failed at times in the past; this chip is no longer manufactured nor supported. The industry solution is to replace this card and the associated electrical controls with a PLC.

JUSTIFICATION:

The pump/generator are a major factor in water storage and delivery. Failure of these units affects the volume of water that can be pulled off the Colorado River, the volume that can be stored in Lake Pleasant and ultimately, the volume that can be delivered to customers. Equipment obsolescence requires that replacement or that an upgrade occur.

OPERATING IMPACT:

The subject governor controls are required to operate the four pump/generators. Not replacing these units may cause up to a fifty-percent decrease in pumping capacity, along with the inability to create electrical generation upon water releases.

SOCIAL IMPACT:

No significant social impact identified.

ENVIRONMENTAL IMPACT:

Supports the electrical power grid.



HVAC REPLACEMENT AT TWIN PEAKS & SANDARIO

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610497

START DATE: 3rd Quarter 2016
COMPLETION DATE: 4th Quarter 2018
TOTAL PROJECT COST: \$ 3,554,000
FUNDING SOURCE: "Big R"

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

Total		Pre-2018		2018		2019		2020		2021		2022		2023		Balance	
\$	3,554	\$	1,129	\$	2,425	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

DESCRIPTION: This HVAC replacement project features a Direct Digital Control (DDC) system; the cooling/heating units are ground-mounted with electric heat and direct expansion cooling. The present HVAC has inaccessible electrical bus ducts and air conditioning units that are nearing their 20-year service life. The HVAC replacement will consist of a new air distribution supply and return duct that is detached from a stand-alone DDC control system within the plant.

JUSTIFICATION: The existing water-cooled air conditioning units at Twin Peaks and Sandario pumping plants are over 15 years old. The condensers are a modular design consisting of four compressors and four 10-tube heat exchangers that are not suitable for CAP applications. Raw water service has been harsh to these units, resulting in the tubes being plugged to prevent rupture. A maximum of 10% of the tubes can be plugged before efficiency and cooling capacity is reduced; currently all four heat exchangers have one tube plugged. The quality of the raw water has necessitated the change in the original control and has resulted in premature wear of the mechanical seats and their subsequent replacements.

OPERATING IMPACT: Improper cooling of the units could cause unit failures on temperature. The project team will be targeting the cooler winter months of the year for construction of the new HVAC system to help avoid any potential operational impacts.

SOCIAL IMPACT: This will create a better work environment for CAP employees.

ENVIRONMENTAL IMPACT: Refrigerants will be properly disposed of by contractor with oversight by the CAP Environmental team.



INDUSTRIAL WATER TREATMENT AT BRADY, PICACHO & RED ROCK

STRATEGY: Effectively Manage, Operate and
Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610466

START DATE: 1st Quarter 2014
COMPLETION DATE: 2nd Quarter 2018
TOTAL PROJECT COST: \$ 2,942,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 2,942	\$ 2,795	\$ 147	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: This project will provide a reliable stuffing box water system with reduced maintenance. The maintenance of pressure and water quality for the stuffing box water is the backbone of the reliability of the pumps. This project reviews the current configuration of plant water systems' supply with the goal of segregating the stuffing box water and its required filtration from the remaining systems. Major components of construction are to remove filters; relocate or replace new piping upstream and downstream of filters and pumps; tie systems into existing switches through the plant PLC; and test and commission the new system.

JUSTIFICATION: Current configuration is increasing maintenance and decreasing reliability of aging and obsolete pumping plant equipment.

OPERATING IMPACT: The new system will improve operational availability and extend the life of pump stuffing boxes and shaft sleeves. Maintenance costs will be reduced.

SOCIAL IMPACT: This project improves the reliability of equipment for customer deliveries and decreases risk of unplanned outages.

ENVIRONMENTAL IMPACT: This project will provide required quality levels for plant water systems.



MAINTENANCE BUILDING ENCLOSURES AT HEADQUARTERS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610492

START DATE: 3rd Quarter 2016
COMPLETION DATE: 2nd Quarter 2018
TOTAL PROJECT COST: \$ 1,165,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 1,165	\$ 651	\$ 514	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

Proposed improvements include three main items:

- 1) Construction of walls for both north and south sides of the open work yard, constructed on metal sidings, from the roof down to a height of 17' above ground level. A crane access platform and door to be constructed on the north side of the paint shop.
- 2) Piping in the northeast corner of the open work yard will be boxed around and left in place. The present crane access ladder in the southeast corner will be removed as it interferes with the proposed enclosure. There will be construction of a vertical wall structure around the water jet cutting area (105 linear feet) on the north and west sides to shelter the water blast equipment. The west wall will include a 20' x 14' tall roll-up door and double-man door to access the area; the north side will be closed in with a single man door added. The south side will be sheltered by a new curtain similar to the recent blast booth improvements.
- 3) Prohibiting bird entry will be addressed through controls on the doors and a physical blocking of the opening or other methods that are to be determined by design.

JUSTIFICATION:

The addition of the siding structure on the existing facilities will greatly improve the usability of the structures for the maintenance crews. Work areas were originally constructed with a roof and slabs that provided limited protection from the elements. Upgrades will reduce the expansion of the south overhead crane rail due to direct sunlight exposure.

OPERATING IMPACT:

This construction will assist in mitigating accumulation of dust that can reach into critical areas during assembly of valves and pumps in the work areas.



SOCIAL IMPACT:

Immediate benefits to employees' safety and health environment will occur with the enclosure project. It helps remove employees and equipment from direct heat exposure.

ENVIRONMENTAL IMPACT:

Movement of the equipment to an internal environment assists in mitigating the effects of human / wildlife interactions.

MAINTENANCE FACILITY AT SOUTH CENTRAL

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610493

START DATE: 1st Quarter 2016
COMPLETION DATE: 2nd Quarter 2018
TOTAL PROJECT COST: \$ 1,286,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 1,286	\$ 1,253	\$ 33	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The current working environment for Aqueduct Maintenance South Central (AMSC) consists of a partitioned meeting area and retrofitted office. AMSC uses a portion of the Business Disaster and Recovery (BDR) space at Salt Gila (SGL) for work and as a meeting area. Currently only the Aqueduct Maintenance division does not have a dedicated work space or building. As equipment fails in the field there is no on-site location that fleet maintenance can utilize to perform service. The creation of an SGL facility for maintenance will remove several major areas of inefficiencies encountered by the SGL maintenance crew.

JUSTIFICATION: The acquisition of a facility will eliminate numerous deficiencies confronted on a daily basis by the maintenance crew, equipment and fleet service maintenance. Tools, equipment and vehicles will no longer be kept outside in large lockable storage containers, with larger equipment merely locked in a fenced area. Fleet service maintenance will be able to properly perform on-site service, eliminating having to transport the equipment back to CAP headquarters. The facility will permit the ability of using a lift to load/unload the equipment, which is more efficient and less risk to potential injury.

OPERATING IMPACT: AMSC supports over 70 miles of CAP aqueduct, and they currently assemble at the most upstream area. Positioning the facility in a more centralized location will decrease travel time and have an estimated annual maintenance and operating cost of \$15,000 for the facility. Relocating equipment into a permanent facility will yield CAP employees a safer work access area, improve operational availability and effective mobilization of heavy equipment.

SOCIAL IMPACT: The new facility will safeguard assets against unauthorized use and theft of assets.

ENVIRONMENTAL IMPACT: No significant environmental impact identified.



MOTOR EXCITER & CONTROL UNIT REPLACEMENT AT PUMPING PLANTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610420 / 610458 / 610465

START DATE: 1st Quarter 2012
COMPLETION DATE: 4th Quarter 2022
TOTAL PROJECT COST: \$ 15,565,000
FUNDING SOURCE: "Big R"

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

	Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$	15,565	\$ 3,838	\$ 1,967	\$ 3,049	\$ 2,944	\$ 1,925	\$ 1,842	\$ -	\$ -

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. The project scope is the replacement of the static exciters with modern equivalents. The upgraded digital exciter system will also provide an excitation controller and convection cooled rectifier bridge 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.

	Total	Pre-2018	2018	2019
Brady/Picacho/Red Rock	\$ 4,475	\$ 2,344	\$ 656	\$ 662
Bouse/LHQ/HSY/SGL	8,972	98	589	2,387
Waddell	2,118	1,396	722	-

OPERATING IMPACT: Construction may cause outages along the canal. The timing of construction will be synchronized with planned outages and low volume months. Replacement of exciters is required for reliable operation of pump motors.

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

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



PROJECTS UNDER \$250,000

STRATEGY:	Effectively Manage, Operate and Maintain CAP Assets	START DATE:	Various
KEY RESULT AREA:	Project Reliability	COMPLETION DATE:	Various
PROJECT #:	Various	TOTAL PROJECT COST:	N/A
		FUNDING SOURCE:	"Big R"

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

DESCRIPTION: Projects under \$250,000 fall below the Project Steering Committee (PSC) formal review and approval process, but are monitored for budget purposes. The Engineering Design Phase projects are anticipated larger projects that only include initial design costs in the 2018 / 2019 budget. The full projects are included in the advisory projects (page 6-9).

	2018	2019
Engineering Mini-Projects		
Surge Arrestors at HQ Building 1		
Modify Storage Building & Install Jib Crane at Red Rock		
Heavy Operating Group Storage		
Vehicle Lift for Aqueduct Maintenance S. Central		
Total Engineering Mini-Projects	\$ 389	\$ 249
Engineering Design Phase Projects		
Cooling Water Treatment at Mark Wilmer		
Multi-Site Covered Vehicle Parking		
Sand Filter System Replacement at Hassayampa		
Lobby and Office Tenant Improvement at Mark Wilmer		
Potable Water System at Sandario		
Engineering Design Phase Projects	\$ -	\$ 801
Total Engineering Design & Mini-Projects	\$ 389	\$ 249
Technology Mini-Projects		
Data and Analytics		
Fleet Vehicle Management		
Mobile Access Enhancement		
Modernize GIS Applications		
Operating Technology Server Refresh		
Total Technology Mini-Projects	\$ 637	\$ 365

JUSTIFICATION: These projects are anticipated to receive PSC review and approval of waivers. The individual projects will be tracked for budget and schedule compliance.

OPERATING IMPACT: Individually Considered

SOCIAL IMPACT: Individually Considered

ENVIRONMENTAL IMPACT: Individually Considered

SEWAGE SYSTEM REPLACEMENT AT LITTLE HARQUAHALA

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610508

START DATE: 1st Quarter 2017
COMPLETION DATE: 1st Quarter 2018
TOTAL PROJECT COST: \$ 440,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 440	\$ 378	\$ 62	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: This project replaces the existing sewage treatment facility and will clean and plate over the open pits of the system. The incoming sewage will now be intercepted by a new sewage grinder pump which will pump the effluent through the existing waste piping out to the existing leach field. A new septic tank will be installed near the leach field.

JUSTIFICATION: The treatment system utilized in the original construction of the pumping plant anticipated a visitor's center and was designed for larger volumes of waste. The system has to be supplemented to keep the biological processes operating. Additionally, the operation of the system requires a certification that only a few employees possess. Due to the light biological loading at the plant, a septic system will better serve the waste water needs of the plant.



OPERATING IMPACT: No significant operating impacts.

SOCIAL IMPACT: This is a better-suited system for needs of plant employees and it eliminates the need for employee waste water certifications and maintenance activities.

ENVIRONMENTAL IMPACT: The low volumes of waste generated at the pumping plant will be treated by the septic system without any environmental impacts.

SIPHON STOP LOGS AT CUNNINGHAM, GILA & SANTA CRUZ

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610502

START DATE: 1st Quarter 2017
COMPLETION DATE: 1st Quarter 2019
TOTAL PROJECT COST: \$ 2,489,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 2,489	\$ 287	\$ 2,166	\$ 36	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: Bubble-logs allow CAP personnel and equipment to enter the siphon and in cases of an emergency, the ability to evacuate. This project will add 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.

JUSTIFICATION: CAP needs an effective method to insulate and drain the siphons from the adjacent canal pools. These siphon stop logs grant CAP employees the capability to more easily perform routine inspections along with any required maintenance. Without stop logs, accessibility isolating siphons for inspection, maintenance or repair becomes exceedingly difficult.

OPERATING IMPACT: This project will be completed at each siphon during times that water operations is capable of reducing the canal flow. The project will reduce outage durations for siphon inspections.

SOCIAL IMPACT: These bubble-logs permit CAP personnel with a safer work environment, better accessibility and mobility to perform the necessary inspection, maintenance or repair required.

ENVIRONMENTAL IMPACT: No significant environmental impact identified.



SUMP PUMP WATER LEVEL CONTROLS AT ALL PUMPING PLANTS

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610473

START DATE: 3rd Quarter 2015
COMPLETION DATE: 1st Quarter 2021
TOTAL PROJECT COST: \$ 2,041,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 2,041	\$ 2	\$ 281	\$ 749	\$ 992	\$ 17	\$ -	\$ -	\$ -

DESCRIPTION: The Sump Pump Water Level Controls project at all plants will replace the existing float systems with PLC level controls driven from ultrasonic level sensors. A small stand-alone PLC will be installed to provide sump pump controls. It will take in the level signal from the ultrasonic sensor and turn on the sump pumps as required. It will also replicate the alarms and plant trips currently pulled from Mercoid switches on the existing float system. Pump lead-lag control and the pump motor starters will be controlled from the PLC. The PLC and ultrasonic sensor will be powered from an uninterrupted/backed-up power source to ensure there is no disruption to the sump pump controls. To help Maintenance identify sump pump performance, the PLC will approximate pump flows based on sump pit draw-down rates when the pumps are running.

JUSTIFICATION: Existing equipment is obsolete and unreliable.

OPERATING IMPACT: The new system will increase plant operational reliability by reducing risk of sump overflow. Maintenance costs are anticipated to be less over time compared to the existing float-actuated units.

SOCIAL IMPACT: There is no significant social impact with this project.

ENVIRONMENTAL IMPACT: There is no significant environmental impact with this project.



TRANSFORMER REPLACEMENT AT MCCULLOUGH

STRATEGY: Enhance Transmission Reliability

START DATE: 1st Quarter 2019

KEY RESULT AREA: Project Reliability

COMPLETION DATE: 1st Quarter 2022

PROJECT #: 610519

TOTAL PROJECT COST: \$ 3,253,000

FUNDING SOURCE: "Big R"

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

	Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$	3,253	\$ -	\$ 378	\$ 1,301	\$ 1,301	\$ 273	\$ -	\$ -	\$ -

DESCRIPTION:

The electrical energy serving Mark Wilmer pumping plant is provided primarily through a single 400 MVA, 500/230-KV transformer located at the McCullough substation in Nevada. There are three transformers at McCullough; however, each is owned by separate utilities. CAP owns the capacity on the Transformer Bank I but has no rights to capacity on the other transformers or on other area transmission systems. Transformer Bank I at McCullough represents a single point of failure for the Mark Wilmer Pumping Plant.

JUSTIFICATION:

Transformer Bank I has been in service for 43 years and is near the end of its useful life expectancy.

OPERATING IMPACT:

Replacement of the McCullough transformer will reduce the risk of failure and avoid the costs to purchase alternate transmission capacity long-term.

SOCIAL IMPACT:

The reliability of the energy supply is critical to continue water deliveries.

ENVIRONMENTAL IMPACT:

An environmental assessment will be performed prior to construction to ensure compliance with applicable regulations.



TRANSMISSION LINE APS & HASSAYAMPA TAP CONNECTION

STRATEGY: Enhance Transmission Reliability

START DATE: 1st Quarter 2013COMPLETION DATE: 1st Quarter 2019

KEY RESULT AREA: Project Reliability

TOTAL PROJECT COST: \$ 42,955,000

PROJECT #: 610321 / 610480

FUNDING SOURCE: "Big R"

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

	Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$	42,955	\$ 36,170	\$ 6,183	\$ 602	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

Palo Verde-Delaney-Sun Valley-Morgan Transmission Project (PV-Morgan) is a 500,000 volt transmission line project to be built and operated by Arizona Public Service Company (APS). CAP has a participant's rights in PV-Morgan up to 10%. At the Sun Valley substation on the PV-Morgan transmission line, CAP will have two additional 230kV breaker positions for Hassayampa, which then feeds back into the existing 230kV Transmission System at Hassayampa Tap. CAP will subsequently work with Western Area Power Administration (WAPA) to update and improve the Hassayampa Tap.

	Total	Pre-2018	2018	2019	Balance
Transmission Line-APS	\$ 29,654	\$ 27,579	\$ 2,075	\$ -	\$ -
HSY Tap Connection	13,301	8,591	4,108	602	-
	\$ 42,955	\$ 36,170	\$ 6,183	\$ 602	\$ -

JUSTIFICATION:

CAP must rely on existing transmission and purchase of transmission from providers. CAP's participation in PV-Morgan not only connects Navajo Southern Transmission System (West Wing) to CAP loads at Sun Valley but also allows purchases to be made out of Palo Verde and/or West Wing for times when units at the NGS are out of service.

OPERATING IMPACT:

This transmission line provides an alternate means of power to the CAP system and for additional transmission system reliability. An anticipated annual intertie transmission cost reduction of \$464,000, partially offset by \$210,000 in new line maintenance costs should provide for an annual net savings of \$254,000.

SOCIAL IMPACT:

CAP will have improved access to power for operations which will improve the reliability of customer water deliveries.

ENVIRONMENTAL IMPACT:

The use of transmission lines by multiple companies eliminates the need for separate transmission sources, preserving the natural land and wildlife areas.



TRANSMISSION LINE REBUILD ED2 TO SAGUARO

STRATEGY: Enhance Transmission Reliability

START DATE: 4th Quarter 2013COMPLETION DATE: 1st Quarter 2018

KEY RESULT AREA: Project Reliability

TOTAL PROJECT COST: \$ 11,990,000

PROJECT #: 610475

FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 11,990	\$ 10,779	\$ 1,211	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The ED2-Saguaro (ED2-SGR) transmission line is located in southern Arizona just south of the city of Casa Grande. The line extends for 35.6 miles from the Electrical District 2 (ED2) substation to Saguaro switchyard; it operates at 115 kV and supplies power to three pumping stations along its route. The last failure brought down a total of 28 structures spanning across a three mile section of the line. By replacing the entire line with new steel poles, it will decrease the number of outages on the line caused by structural failures. This upgrade increases the electric grid reliability of the system.

JUSTIFICATION: Failure of the current single wooden pole structure continues to be a threat to CAP power needs and operational ability.

OPERATING IMPACT: The replacement of the wooden transmission poles will increase CAP's ability to transmit power needed for the efficient operation of the CAP system. Unexpected operational costs for repairs of downed power lines will decrease due to the stronger, more wind-resistant steel poles.

SOCIAL IMPACT: The stronger steel poles will improve CAP's ability to continue water deliveries.

ENVIRONMENTAL IMPACT: An environmental assessment will be performed prior to construction to ensure compliance with applicable regulations. The more durable steel poles will be less likely to fail which is safer for Arizona wildlife.

TRANSMISSION LINE VALENCIA TO BLACK MOUNTAIN

STRATEGY: Enhance Transmission Reliability

START DATE: 1st Quarter 2019

KEY RESULT AREA: Project Reliability

COMPLETION DATE: 1st Quarter 2019

PROJECT #: 610514

TOTAL PROJECT COST: \$ 1,171,000

FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 1,171	\$ -	\$ -	\$ 1,171	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: Construction of a new 2.7-mile 115 kV transmission line from AEPCO's Valencia substation to the existing CAP transmission line at Black Mountain spreader yard.

JUSTIFICATION: The existing transmission line has a 0.7 mile gap. Due to this gap, the Tucson B pumping plants are radially fed from the Rattlesnake switchyard. An outage occurrence on the CAP transmission line from Rattlesnake Switchyard would cause power loss to the Tucson B pumping plants. This project would eliminate the radial feed system by providing a reliable loop feed system into the Tucson B pumping plants while greatly improving flexibility for maintenance scheduling.

OPERATING IMPACT: If the transmission line from Rattlesnake Switchyard failed, CAP would be able to provide power north on the new transmission line from Valencia Substation and avoid any service interruptions at the Tucson B pumping plants.

SOCIAL IMPACT: Improved dependability by providing power for operations at the Tucson B pumping plants will build CAP's reliability of customer water deliveries.

ENVIRONMENTAL IMPACT: The use of transmission lines by multiple companies eliminates the need for separate transmission sources, preserving the natural land and wildlife areas.



UNIT BREAKER REPLACEMENT AT PICACHO & RED ROCK

STRATEGY: Effectively Manage, Operate and Maintain CAP Assets
KEY RESULT AREA: Project Reliability
PROJECT #: 610516

START DATE: 1st Quarter 2018
COMPLETION DATE: 4th Quarter 2018
TOTAL PROJECT COST: \$ 700,000
FUNDING SOURCE: "Big R"

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

Total	Pre-2018	2018	2019	2020	2021	2022	2023	Balance
\$ 700	\$ -	\$ 700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

The project covers the installation of Power Cubes and miscellaneous wiring for the existing circuit breakers at Picacho and Red Rock. The Power Cube is a state of the art circuit breaker which utilizes magnetic operators. The outline includes the demolition of the existing breakers, associated wiring and the switchgear racking mechanism. Along with the installation of the new Power Cube, associated wiring from switch terminals to the switchgear terminal blocks, and testing of the new breaker/cube combination will be performed. The installation is a partnership with the contractor, with the plant personnel participating in the commissioning and testing.



JUSTIFICATION:

The replacement with proposed circuit breakers ensures reliable motor run and stop functions. A failure-to-close results in reduced capacity and availability. A failure-to-open results in loss of operator control or could result in severe damage to unit motors and pumps.

OPERATING IMPACT:

The new circuit breakers will decrease maintenance costs and increase protected system reliability as there will now be functional protection for a quicker response.

SOCIAL IMPACT:

Plant personnel should feel safer, recognize that their safety is important to management and that a Cross Functional Team is an advantage for CAP.

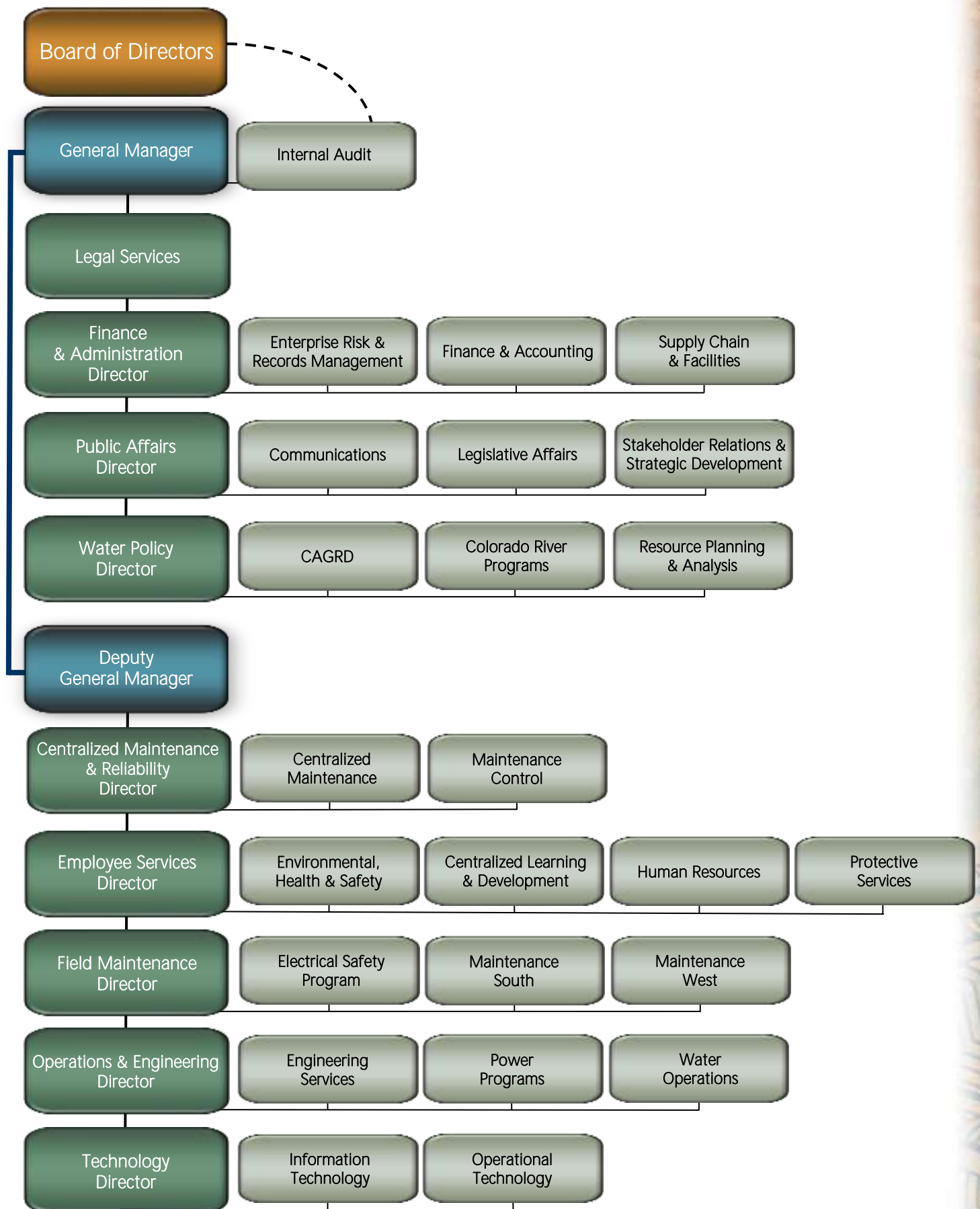
ENVIRONMENTAL IMPACT:

The existing circuit breakers may be recycled.



Valve at Picacho

TABLE OF ORGANIZATION



NEW MANAGEMENT & ORGANIZATION STRUCTURE

Significant organization-wide changes occurred during 2016 which resulted in a new management model and organizational structure within Central Arizona Project (CAP). Prior to this, the CAP organization consisted of a General Manager (GM) and eight Senior Management Team (SMT) members. During 2015 and 2016 several retirements occurred within the SMT members, including CAP's SMTs for Maintenance, Employee Services, Board Liaison, Communications, General Manager and Deputy General Manager (DGM). With the 2016 internal promotion of Ted Cooke as CAP's General Manager, which vacated the Finance & Administrative SMT position, it became evident that it was time to give consideration to establishing a new management model and organization structure.

During 2015, a Director level was created to assist and support the Deputy General Manager of Operations & Maintenance. As this structure had been found to be effective in leveling and managing the work load, it was decided that the SMT structure was to be replaced with an expanded Director level, known as the "Management Council." Forming this level resulted in restructuring and redistributing the responsibilities of both the Finance & Administration DGM and the Strategic Initiatives & Public Policy DGM. Five Director positions were created as a result of this restructuring, which expanded this level to eight Directors. These Directors now govern on the Management Council with the General Manager, Deputy General Manager and General Council.

The Directors and their areas of responsibility consist of:

Director of Centralized Maintenance & Reliability

Director of Field Maintenance

Director of Operations & Engineering

Director of Finance & Administration

Director of Employee Services

Director of Technology

Director of Water Policy

Director of Public Affairs

This new management structure has provided several advantages for CAP and its staff; these advantages include:

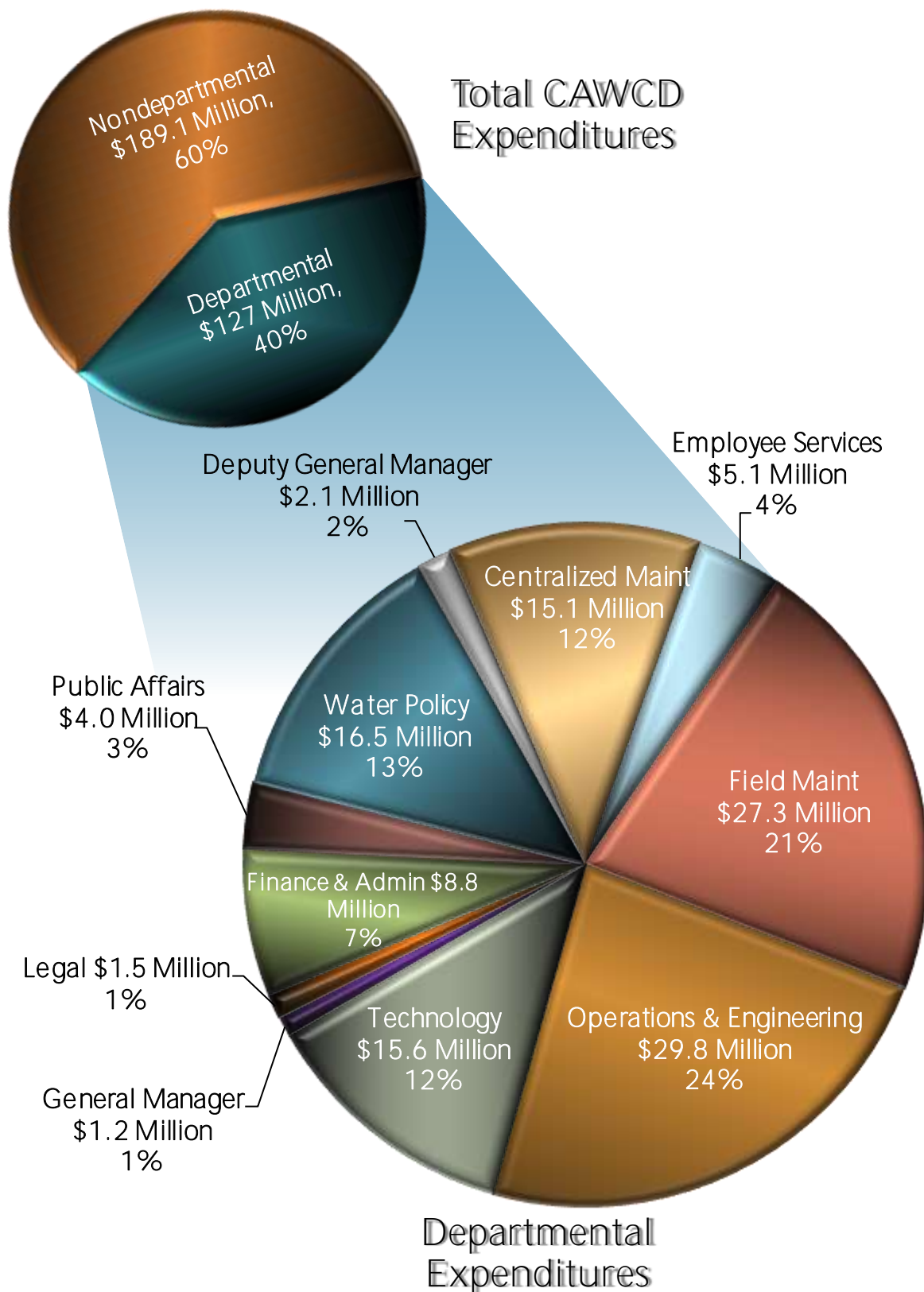
- More inclusive decision-making
- Greater diversity
- More flexibility
- More opportunity for employee development
- More focused senior management functional responsibilities

Based on CAP's culture and the General Manager's strong conviction to promote from within when possible, all the Director positions were filled from CAP's highly experienced and skilled internal candidates. Promoting from within also resulted in continued challenges, such as filling vacated positions as existing employees progressively advanced. Additionally with this change came departmental structure and staff turnover, which resulted in management restructuring and development for the most effective alignment of responsibilities for all departments.

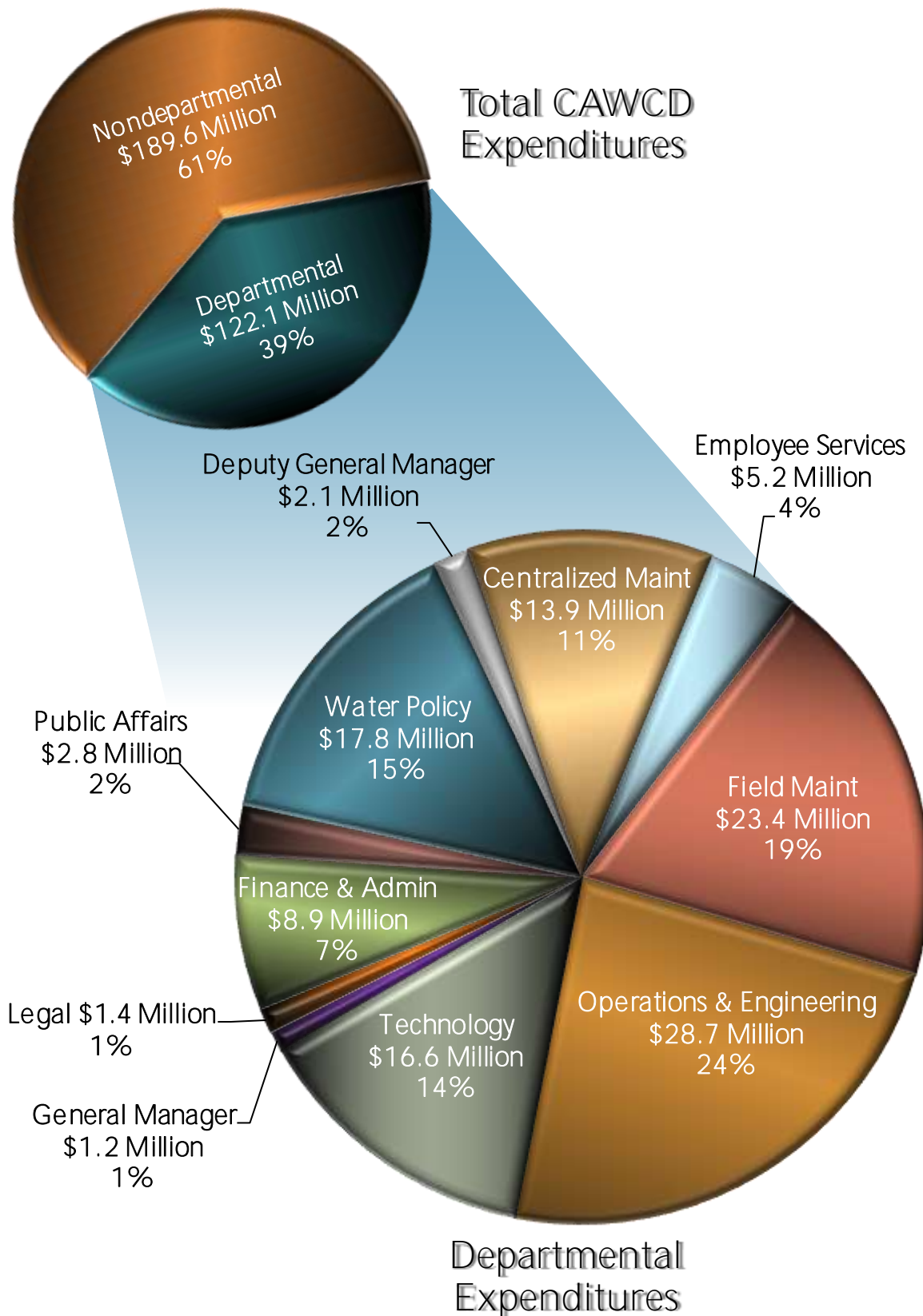
The new CAP's organizational structure and management model are depicted in the Table of Organization (page 7-1).



2018 TOTAL EXPENDITURES



2019 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)

	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
General Manager	2.4	4.3	6.6	7.0	7.0
Legal Services	5.0	4.7	5.0	5.0	5.0
Finance & Administration Director					
Enterprise Risk & Records Management	-	2.3	6.5	8.0	8.0
Finance & Accounting	20.0	18.3	17.7	18.0	18.0
Supply Chain & Facilities	27.4	26.6	26.4	27.8	27.8
Total Finance & Administration Director	47.4	47.2	50.6	53.8	53.8
Public Affairs Director	13.9	13.8	14.8	16.0	16.0
Water Policy Director					
CAGRD	7.5	8.4	9.0	9.0	9.0
Colorado River Programs	2.6	3.6	4.0	4.0	4.0
Resource Planning & Analysis	4.0	3.2	3.9	4.0	4.0
Total Water Policy Director	14.1	15.2	16.9	17.0	17.0
Deputy General Manager	4.0	7.2	8.0	7.0	7.0
Centralized Maintenance & Reliability Director					
Centralized Maintenance	60.7	57.3	58.8	61.0	61.0
Maintenance Control	37.1	41.0	40.7	41.0	41.0
Total Centralized Maintenance & Reliability Director	97.8	98.3	99.5	102.0	102.0
Employee Services Director					
Centralized Learning & Development	5.6	5.6	6.0	6.0	6.0
Human Resources	5.9	6.9	7.0	7.5	7.5
Protective Services	10.0	10.0	10.0	10.0	10.0
Environmental Health & Safety	9.7	10.3	10.0	10.0	10.0
Total Employee Services Director	31.2	32.8	33.0	33.5	33.5
Field Maintenance Director					
Electrical Safety Program	5.1	4.5	4.9	6.0	6.0
Maintenance South	43.2	43.9	42.6	44.0	44.0
Maintenance West	40.0	40.9	42.4	44.0	44.0
Total Maintenance Director	88.3	89.3	89.9	94.0	94.0
Operations & Engineering Director					
Engineering Services	64.5	63.5	62.1	63.0	63.0
Power Program	-	0.8	2.2	2.0	2.0
Water Operations	20.9	20.2	20.9	21.0	21.0
Total Operations & Engineering Director	85.4	84.5	85.2	86.0	86.0
Technology Director					
Information Technology	39.1	35.5	33.2	34.0	34.0
Operational Technology	42.5	42.5	44.5	47.0	47.0
Total Technology Director	81.6	78.0	77.7	81.0	81.0
Total FTE	471.1	475.3	487.2	502.3	502.3
Vacancy/Salary Savings Equivalent			(3.5)	(15.0)	(15.0)
Net FTE	471.1	475.3	483.7	487.3	487.3

Note: Minor differences due to rounding.

Prior years adjusted to current cost center alignment

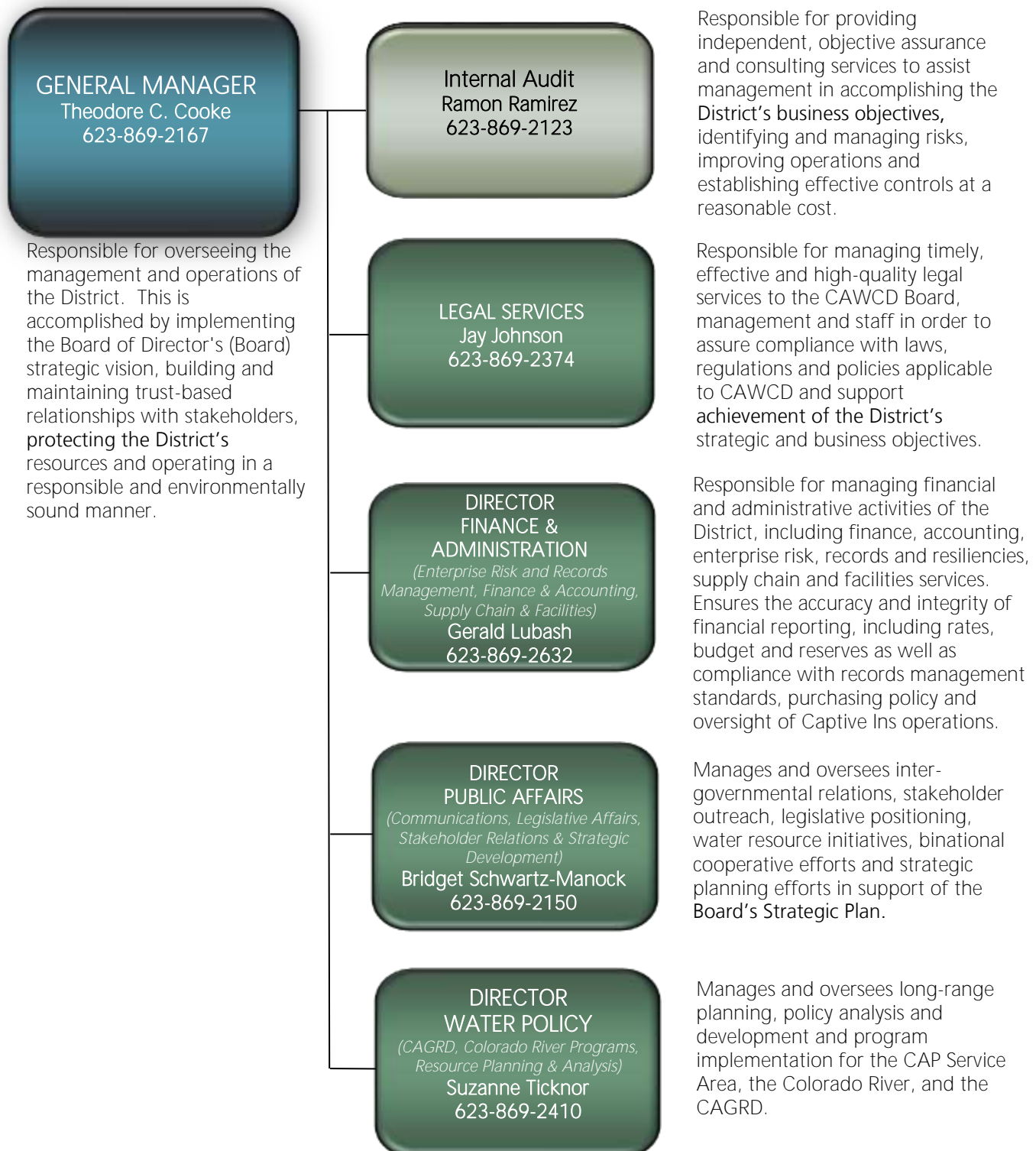
EXPLANATION OF CHANGES IN POSITIONS

Average Full-Time Equivalent (FTE)

	2017 Projection	2018 Budget	2019 Budget	2018 vs 2017	2019 vs 2018	Notes
General Manager	6.6	7.0	7.0	0.4	-	Filling vacant position
Legal Services	5.0	5.0	5.0	-	-	
Finance & Administration Director						
Enterprise Risk & Records Management	6.5	8.0	8.0	1.5	-	New department; Filling vacant positions
Finance & Accounting	17.7	18.0	18.0	0.3	-	
Supply Chain & Facilities	26.4	27.8	27.8	1.4	-	Filling vacant positions in Facilities Services
Total Finance & Administration Director	50.6	53.8	53.8	3.2	-	
Public Affairs Director	14.8	16.0	16.0	1.2	-	Filling vacant position
Water Policy Director						
CAGR	9.0	9.0	9.0	-	-	
Colorado River Programs	4.0	4.0	4.0	-	-	
Resource Planning & Analysis	3.9	4.0	4.0	0.1	-	
Total Water Policy Director	16.9	17.0	17.0	0.1	-	
Deputy General Manager	8.0	7.0	7.0	(1.0)	-	Temporary assignment ends at the end of 2017
Centralized Maintenance & Reliability Director						
Centralized Maintenance	58.8	61.0	61.0	2.2	-	Filling vacant positions
Maintenance Control	40.7	41.0	41.0	0.3	-	
Total Centralized Maintenance & Reliability Director	99.5	102.0	102.0	2.5	-	
Employee Services Director						
Centralized Learning & Development	6.0	6.0	6.0	-	-	
Human Resources	7.0	7.5	7.5	0.5	-	Less than budgeted intern
Protective Services	10.0	10.0	10.0	-	-	
Environmental Health & Safety	10.0	10.0	10.0	-	-	
Total Employee Services Director	33.0	33.5	33.5	0.5	-	
Field Maintenance Director						
Electrical Safety Program	4.9	6.0	6.0	1.1	-	Transferred from Power Program.
Maintenance South	42.6	44.0	44.0	1.4	-	Employees were shifted between departments
Maintenance West	42.4	44.0	44.0	1.6	-	Employees were shifted between departments
Total Maintenance Director	89.9	94.0	94.0	4.1	-	
Operations & Engineering Director						
Engineering Services	62.1	63.0	63.0	0.9	-	Filling vacant position.
Power Program	2.2	2.0	2.0	(0.2)	-	
Water Operations	20.9	21.0	21.0	0.1	-	Transferred open position to Electrical Safety
Total Operations & Engineering Director	85.20	86.00	86.00	0.80	-	
Technology Director						
Information Technology	33.2	34.0	34.0	0.8	-	Filling vacant positions
Operational Technology	44.5	47.0	47.0	2.5	-	Filling vacant positions
Total Technology Director	77.7	81.0	81.0	3.30	-	
Total FTE	487.2	502.3	502.3	15.1	-	
Vacancy/Salary Savings Equivalent	(3.5)	(15.0)	(15.0)	(11.5)	-	
Net FTE	483.7	487.3	487.3	3.6	-	

GENERAL MANAGER

Mission: The General Manager (GM) provides leadership and direction in managing the business of the Central Arizona Water Conservation District (CAWCD or District) and the operations of the Central Arizona Project (CAP).



GENERAL MANAGER

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
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	Build a strong CAP work community	<p>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.</p> <p>Accomplishment: Completed the first graduating class of the CAP Supervisor Academy and began the second. Kicked off the CAP Manager University leadership training program. Implemented changes to the internal employee website to better inform employees about internal and external activities, including a GM blog and easy access to Board materials. Integrated the 2016 Board Strategic Plan into department business plans for the 2018 / 2019 Budget cycle.</p>
Leadership & Public Trust	Position CAP as a recognized leader in water and energy management	<p>Action Plan: Actively engage at national, state and regional levels to promote the interests of CAP and its constituents.</p> <p>Accomplishment: Participated as a key contributor in interstate negotiations on the Drought Contingency Plan (DCP) and international discussions on Minute 323 to the U.S. treaty with Mexico, which was signed in September 2017. Implemented the CAP System Use Agreement to support recovery of stored supplies, wheeling and exchange. Actively engaged in the extension of the Navajo Generating Station (NGS) lease, CAP's major source of electricity, with the United States, the Navajo Nation, the project owners and other stakeholders. Established Board Task Forces on Communications, Power, Water Quality and Excess Water. Created the "Protect Lake Mead" initiative.</p>
	Create a more effective customer and stakeholder working relationship within the M&I, agricultural, Native American Indians and irrigation districts	<p>Action Plan: Continue active outreach and liaison programs with customers to pursue improved and effective relationships among customers and stakeholders, including municipal and industrial (M&I), agricultural (Ag) and Native American tribes.</p> <p>Accomplishment: Expanded the Municipal, Agricultural and Tribal outreach efforts, including elected officials, city managers and water department staff. Continued relationship building with constituent groups. Worked closely with the Arizona Department of Water Resources (ADWR), the U.S. Bureau of Reclamation (Bureau, BOR or Reclamation), the Arizona Water Banking Authority (AWBA), agencies from other states, and Arizona stakeholders on interstate and Intrastate initiatives, including the DCP, the System Use Agreement, Minute 323.</p>

GENERAL MANAGER

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Action Plan: Implement systems that reduce costs, increase revenues, improve reliability or improve functionality.</p> <p>Accomplishment: Finance, Audit and Power Committee (FAP) sponsored in-depth stakeholder discussions on capital charges, reserves, use of taxes and rate-setting policy.</p>
	Provide reliable and cost-effective water deliveries	<p>Action Plan: Implement processes designed to ensure the integrity of the physical system, minimize unplanned outages and maximize customer deliveries.</p> <p>Accomplishment: Completed a comprehensive Asset Management Customer Value benchmark and established a plan for implementing recommendations. Continuing asset condition assessment and implementation of reliability-centered maintenance (RCM) processes to critical assets. Received the Uptime Award from Uptime Magazine and the Gold Award for Exceptional Utility Performance from the Association of Municipal Water Agencies.</p>
Project Reliability		<p>Action Plan: Continue to establish methods which encourages advancement of employee performance and skills through increased understanding of existing programs, policies and procedures.</p>
	Maintain high levels of skills and job proficiency among employees	<p>Accomplishment: Progressed CAP Personal and Organizational Development (POD) based on Strategic Talent Enablement programs (STEP), which includes the Supervisor Academy and Management University. 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.</p>
	Improve technology management	<p>Implement technology that increases access to information by employees, directors, stakeholders and the general public.</p> <p>Accomplishment: Implemented live streaming of CAP Board meetings and archiving of recorded Board proceedings, indexed to briefing materials. Added easy access to Board materials and proceedings to internal employee website.</p>

GENERAL MANAGER

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Water Supply	Manage Colorado River to optimize CAP water availability	<p>Action Plan: Engage in processes at the federal and regional arenas that protect and enhance western water supplies, particularly the Colorado River.</p> <p>Accomplishment: Participated as a key contributor in interstate negotiations on the Drought Contingency Plan and international discussions on Minute 323 to the U.S. treaty with Mexico, which was signed in September 2017. Implemented the CAP System Use Agreement to support recovery of stored supplies, wheeling and exchange. Participated as a principal in the Colorado River Salinity Control Forum. Key funder and contributor to interstate conservation efforts (Lake Mead MOU and Pilot System Conservation Program) and exceeded target commitments. Efforts contributed to avoiding shortage in 2016, 2017 and 2018.</p>
Power	Develop plans for reliable, sustainable, cost-effective generation resources for the future	<p>Action Plan: Continue to work with the Environmental Protection Agency (EPA), Bureau, Salt River Project (SRP), Native American tribes and environmental stakeholders to successfully conclude efforts to ensure the ongoing operation of the NGS through 2044. Continue to identify and explore alternatives for post-NGS.</p> <p>Accomplishment: Participated in efforts to extend NGS operations through 2019. Established Power Task Force to evaluate alternatives for post-NGS. Prepared and issued an Request for Proposal (RFP) for post-NGS power to develop a portfolio for 2020 and beyond.</p>
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Action Plan: Continue to implement the CAGRDR water supply acquisition program and work to finalize the wheeling, firming and recovery framework.</p> <p>Accomplishment: Completed the System Use Agreement to support wheeling, recovery, exchange and firming using the CAP infrastructure. CAGRDR acquired 1,400 AF of long-term annual supply in addition to 57,200 AF of long-term storage credits (LTSC). Together, these supplies will achieve the goal of offsetting an additional 5,037 AF of replenishment obligation for the next 15 years.</p>

GENERAL MANAGER BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Leadership and Public Trust	Build a strong CAP work community	<p>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.</p> <p>Expected Outcomes: Expand Strategic Talent Enablement Process (STEP) through continuation of Supervisor Academy and Management University and kickoff of Leadership Institute. Complete next round of all-manager 360 reviews by the end of 2019.</p>
	Position CAP as a recognized leader in water and energy management	<p>Action Plan: Actively engage at national, state and regional levels to promote the interests of CAP and its constituents.</p> <p>Expected Outcomes: Complete Lower Basin Drought Contingency Plan and DCP Plus. Implement Minute 323 Domestic Agreements. Implement System Use Agreement subordinate agreements.</p>
	Create a more effective customer and stakeholder working relationship within the M&I, agricultural, Native American Indians and irrigation districts	<p>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.</p> <p>Expected Outcome: Continue to expand stakeholder outreach programs. Administer a stakeholder survey - evaluate and implement recommendations.</p>
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	<p>Action Plan: Evaluate methodologies for water rates, capital charges, reserves and use of taxes for stakeholder discussions and ultimate Board review and decisions.</p> <p>Expected Outcome: Expanding upon stakeholder workshops in late 2017, develop scenarios and alternatives for consideration by the Board and incorporate into 2019 / 2020 rate-setting.</p>
Project Reliability	Provide reliable and cost-effective water deliveries	<p>Action Plan: Implement processes designed to ensure the integrity of the physical system, minimize unplanned outages and maximize customer deliveries.</p> <p>Expected Outcome: Implement specific recommendations from the Asset Management Customer Value survey.</p>
	Maintain high levels of skills and job proficiency among employees	<p>Action Plan: Continue to establish methods which encourages advancement of employee performance and skills through increased understanding of existing programs, policies and procedures.</p> <p>Expected Outcome: Expansion of the Strategic Talent Enablement Program (STEP) Supervisor Academy, Management University and Leadership Institute</p>

GENERAL MANAGER

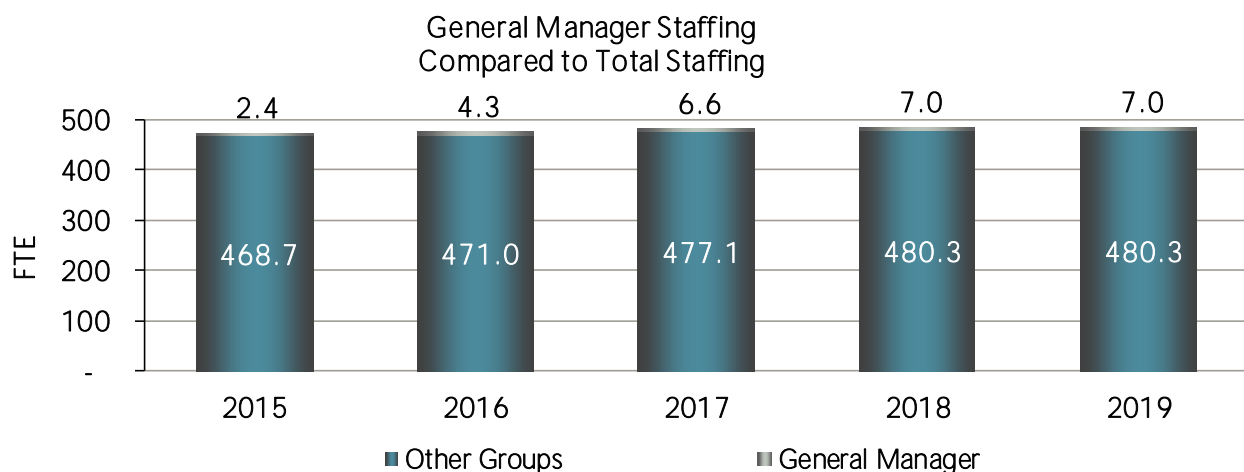
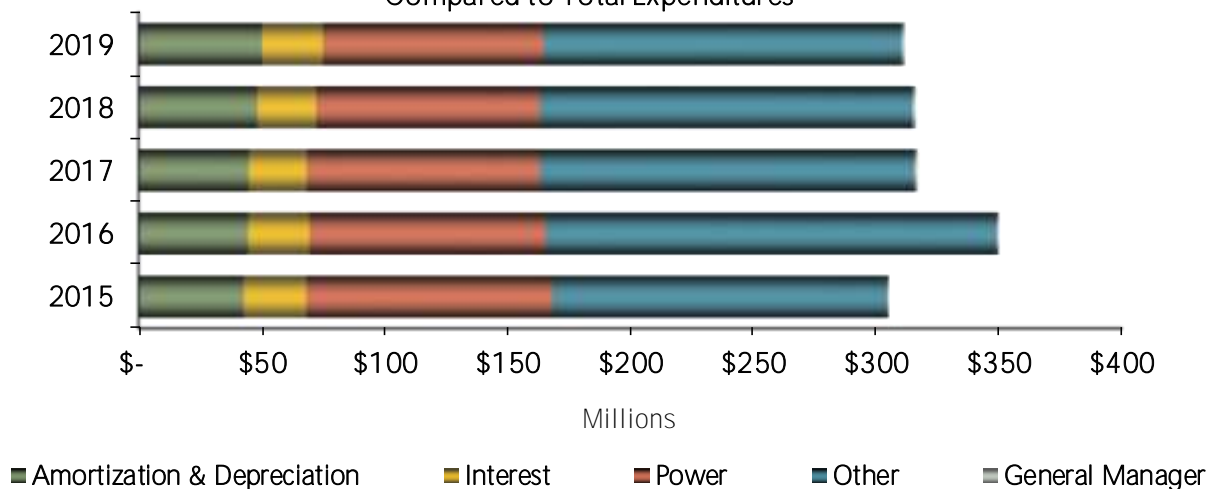
BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Project Reliability	Improve technology management	<p>Implement technology that increases access to information by employees, directors, stakeholders and the general public.</p> <p>Expected Outcome: Evaluate and implement technology solutions including data integration, remote access, mobile applications and enhanced security.</p>
Water Supply	Manage Colorado River to optimize CAP water availability	<p>Action Plan: Engage in processes at the federal and regional arenas that protect and enhance western water supplies, particularly the Colorado River.</p> <p>Expected Outcome: Completion of Lower Basin Drought Contingency Plan. Completion of DCP Plus within Arizona. Implementation of Minute 323 Domestic Agreements. Avoid or mitigate shortage in 2018, 2019 and 2020.</p>
Power	Develop plans for reliable, sustainable, cost-effective generation resources for the future	<p>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</p> <p>Expected Outcome: Completion of NGS lease and contract extensions. Completion of decommissioning scope and financing plans. Completion of post-2020 contracting.</p>
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Action Plan: Continue to implement the CAGR water supply acquisition program</p> <p>Expected Outcome: Pursue opportunities for long-term on-river supplies, as well as local supplies and LTSC purchases.</p>

GENERAL MANAGER BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 300	\$ 724	\$ 1,038	\$ 1,083	\$ 1,115
Outside services	408	71	58	83	68
Materials & supplies	1	2	1	1	1
Other expenses	35	61	45	43	35
Total Operating Expenses	\$ 744	\$ 858	\$ 1,142	\$ 1,210	\$ 1,219
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 744	\$ 858	\$ 1,142	\$ 1,210	\$ 1,219
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 744	\$ 858	\$ 1,142	\$ 1,210	\$ 1,219
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 744	\$ 858	\$ 1,142	\$ 1,210	\$ 1,219
Staffing (FTE)	2.4	4.3	6.6	7.0	7.0

General Manager Expenditures
Compared to Total Expenditures





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.

LEGAL SERVICES

Jay Johnson
General Counsel
(623) 869-2374

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.

LEGAL SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Water Supply	Prepare for CAP non-Indian Agriculture (NIA) Reallocation	<p>Action Plan: Work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA Water.</p> <p>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 until at least 2018.</p>
	Support development of program for wheeling non-project water.	<p>Action Plan: Complete and implement appropriate wheeling agreements.</p> <p>Accomplishment: Successfully negotiated the System Use Agreement with the Bureau.</p>
Replenishment	Support the acquisition of new water supplies for CAGRD	<p>Action Plan: Aggressively acquire water supplies as outlined in the Plan of Operation. With a measure/target of number of acre-feet acquired, with a target of 25,000 AF.</p> <p>Accomplishment: At a minimum, CAWCD staff have worked with the CAGRD to acquire 50,000 AF from Vidler Water Company/ Active Resource Management. Smaller acquisition programs have also occurred including finalizing the transfer of Citrus Heights Irrigation District's 315 AF of CAP M&I priority water.</p>
		<p>Action Plan: Develop and implement revenue generation mechanisms such as bonding, rates and fees, that are sufficient to carry out water supply acquisition plan.</p> <p>Accomplishment: CAWCD staff has worked with the CAGRD to develop new funding mechanisms. Formalization of those new funding mechanisms have been delayed until at least the 2018 legislative sessions and most likely, the 2019 legislative session.</p>
Power	Maintain existing generation resources	<p>Action Plan: Work to influence potential APA post-2017 Hoover reallocation process. With a measure/target of amount of Hoover allocation retained, with a target of achieving allocation as set forth in the Hoover customer proposal (current allocation subject to adjustment for Hoover D).</p> <p>Accomplishment: CAWCD legal staff worked with power management to reach a positive result for CAWCD in the 2017 Hoover reallocation process and negotiate a new power sales contract for post 2017 Hoover allocation period.</p>

LEGAL SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Power	Maintain existing generation resources	<p>Action Plan: Work to reach a positive resolution on outstanding NGS issues. With a measure/target of continued litigation of Best Available Retrofit Technology (BART) rule challenges to a positive conclusion. Participate in NEPA process and maintain on schedule (draft Environmental Impact Statement (EIS) Summer 2016, Record of Decision (ROD) Fall 2017).</p> <p>Accomplishment: The BART litigation is completed after positive decision. NEPA is on schedule. Legal is currently working to resolve NGS issues to its possible closing and working with the Power group in issues relating to alternative sources of power.</p>

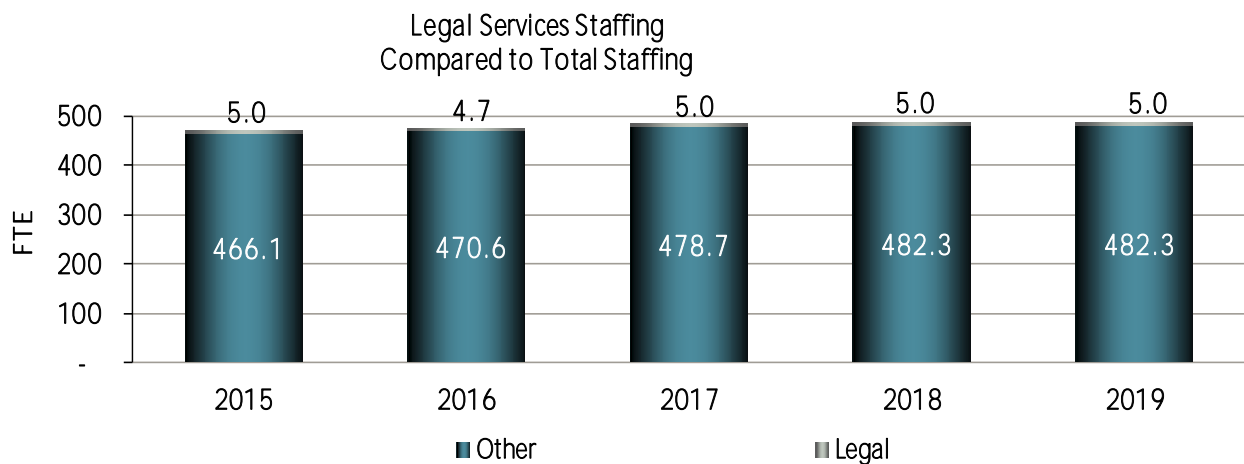
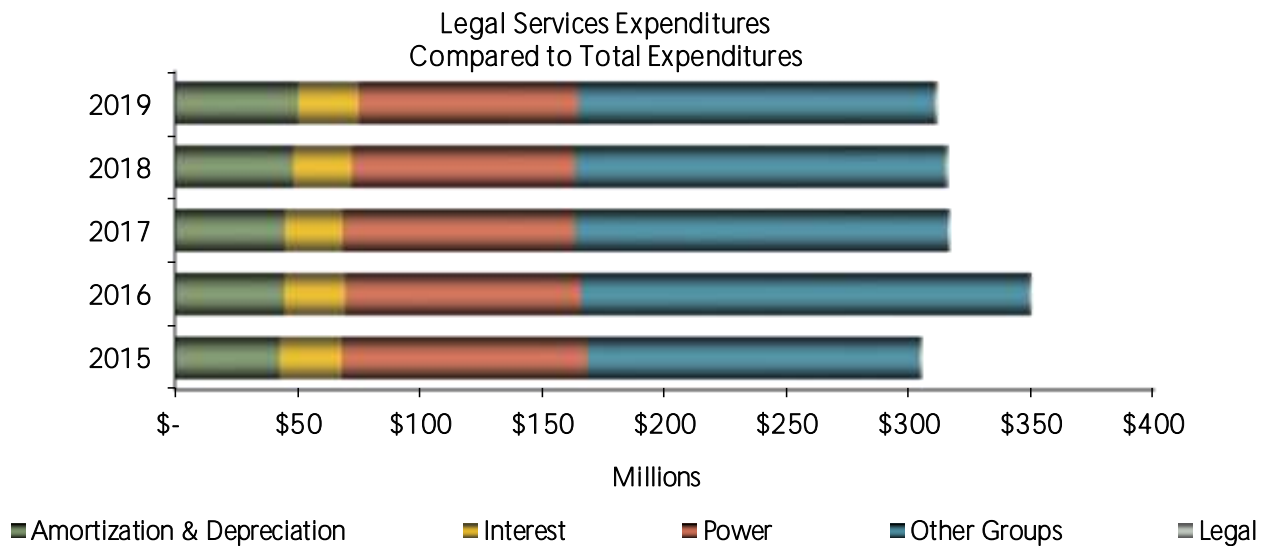
LEGAL SERVICES

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Water Supply	Optimize reliability and sustainability of CAP water supply	<p>Action Plan: Continue to work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA water.</p> <p>Expected Outcome: Develop an appropriate strategy for reallocation of CAP NIA water.</p>
	Reduce risk associated with CAP's junior priority	<p>Action Plan: Identify, develop and implement programs to address near-term risks to Colorado River water supply and the structural deficit.</p> <p>Expected Outcome: CAWCD Board has approved a Drought Contingency Plan or alternative and an Arizona intrastate implementation plan for DCP. In addition, routine updates are 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.</p>
	Complete and implement Water Wheeling Agreements	<p>Action Plan: Support CAP staff and CAP Board in development of water quality standards for wheeling non-project water through the CAP.</p> <p>Expected Outcome: Finalize any necessary agreements to implement the System Use Agreement and develop the first delivery agreements to wheel non-project water through the CAP.</p>
Power	Secure reliable, sustainable, cost-effective generation resources	<p>Action Plan: Prepare for eventual replacement of NGS through implementation of the Post-NGS Power Strategy, which includes the evaluation of alternative generation resources.</p> <p>Expected Outcome: Support the process of finding and securing alternative power resources to replace NGS.</p>
		<p>Action Plan: Prepare for NGS decommission.</p> <p>Expected Outcome: Assist in the management of CAP's obligations with the decommissioning of NGS.</p>
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Action Plan: Develop and implement revenue generation mechanisms (e.g., bonding, rates, fees) that are sufficient to carry out the Water Supply Acquisition Program.</p> <p>Expected Outcome: Complete studies of the existing CAGR rate structure to provide a basis for recommending changes that would result in greater revenue stability and ensure equity among members.</p>
		<p>Action Plan: New CAGR water supplies.</p> <p>Expected Outcome: Finalize the transfer of a Colorado River water supply for replenishment purposes.</p>

LEGAL SERVICES BUDGET SUMMARY

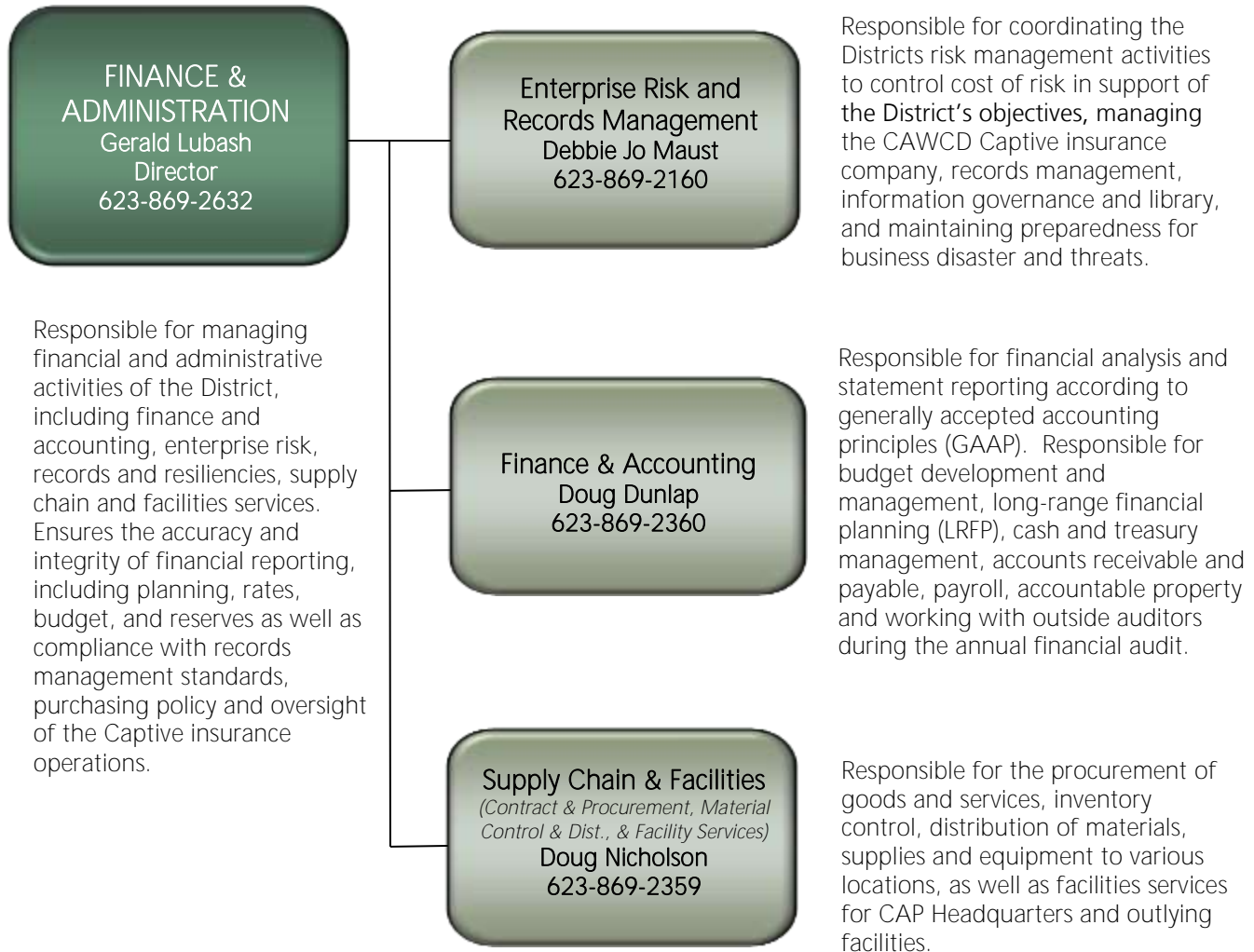
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 768	\$ 735	\$ 792	\$ 820	\$ 844
Outside services	438	224	328	575	475
Materials & supplies	5	2	4	5	5
Other expenses	53	61	65	77	77
Total Operating Expenses	\$ 1,264	\$ 1,022	\$ 1,189	\$ 1,477	\$ 1,401
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,264	\$ 1,022	\$ 1,189	\$ 1,477	\$ 1,401
CAGR					
Other Funds and Accounts					
Total Operating Expenses	\$ 1,264	\$ 1,022	\$ 1,189	\$ 1,477	\$ 1,401
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,264	\$ 1,022	\$ 1,189	\$ 1,477	\$ 1,401
Staffing (FTE)	5.0	4.7	5.0	5.0	5.0





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 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.



FINANCE & ADMINISTRATION

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	<p>Action Plan: Evaluate various methodologies for implementation of rate stabilization funds and develop items of consideration for senior management team (SMT) and Board review and decisions. With a measure of scenarios and comparisons developed with a target of the end of 2016 (pending shortage determinations).</p> <p>Accomplishment: Developed and presented options for utilization of stabilization funds in rate workshops and Board presentations in 2016. Specific recommendations are dependent of the timing of the shortage so it was determined final recommendations would not be determined.</p> <hr/> <p>Action Plan: Ensure investments are balanced between safety and investment returns. With a measure of evaluating State Treasurer investment types and amount of investments in short-and long-term with a target of performing review and possible recommendations by end of 2016.</p> <p>Accomplishment: Performed review of investment strategy in 2016 and determined that no changes needed to be recommended.</p>
	Coordinate projected uses of funds with appropriate sources of financing	<p>Action Plan: Develop recommendations for property tax proceeds in the event of shortage. With a measure of scenarios and comparisons developed with a target of the end of 2016 (pending shortage determinations).</p> <p>Accomplishment: As the probability of shortage has significantly delayed until post-2019, it was determined to postpone this discussion. A general tax utilization discussion was held in the fall of 2017.</p>
	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Action Plan: Obtain payment discounts and other related types of rebates to generate income or lower expenses when greater than interest income generated. With the measure of amount of time to pay purchasing card (Pcard); payment discounts, with a target of maintaining payment of Pcard under an average of 10 days from billing date. Take advantage of payment discounts.</p> <p>Accomplishment: Accounting and Purchase Card Administration ensured timely request of payment to ensure receipt to obtain discounts and rebates; \$33,000 was earned as a Purchase Card rebate in 2016.</p>

FINANCE & ADMINISTRATION

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Finance	Effectively communicate financial issues to Board and stakeholders	<p>Action Plan: Evaluate impacts of official accounting changes and inform senior management and Board on financial implications. With a measure of complying with all governmental accounting policies and procedures with a target of 100% compliance.</p> <p>Accomplishment: Accounting changes were reviewed in year prior to their implementation. Compliance has been 100%, including the GASB 68 implementation.</p>
		<p>Action Plan: Ensure independent audit reviews and other required financial communications are performed timely and accurately. With a measure of reports and communications being provided in required timeframes. Provide periodic updates to the Board, as appropriate. With a target of all financial reporting and communications compiled and meeting reporting deadlines.</p> <p>Accomplishment: All reviews were performed timely and communicated as appropriate to the Board.</p>
Project Reliability	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Provide timely processes across the organization to enable cost-effective equipment replacement and repair. With the measure / target being level of customer satisfaction.</p> <p>Accomplishment: Reviewed and updated supply chain processes with maintenance, information technologies and human resources and collaborated with engineering services on capital improvement project (CIP) execution. Evaluated facilities special plan to identify work productivity improvement opportunities.</p>
	Establish an Enterprise Risk Management (ERM) program	<p>Action Plan: Create a decision-making framework utilizing ISO 31000 that evaluates and mitigates risks of varying levels and types (e.g., business, technology, financial, workforce, property/ infrastructure, operations, etc.). With a measure of organizational awareness of effect of uncertainty on objectives. With a target of continued exploration of opportunities for improvements within organization where ERM is used but not formalized, and introduce in areas not familiar with framework.</p> <p>Accomplishment: Created user guide as an aide in familiarizing staff in the attributes of ERM and how, when it is used in the decision-making process, it can help an organization increase the likelihood of achieving objectives, improve the identification of opportunities and threats, and effectively use resources for risk treatment.</p>

FINANCE & ADMINISTRATION

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
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Improve technology management

Action Plan: Be prepared administratively (i.e., regulatory, insurance, compliance) to respond to emerging technologies. With a measure of response with minimal administrative delay as emerging technology beneficial to CAP is presented. With a target of balanced perceived advantages of emerging technology with appropriate assumption of risk.

Accomplishment: Worked with team involving staff from Purchasing, Legal, Risk and IT, exercised ERM, streamlined new technology contract, reviewed by evaluating risk to organization and willingness to modify contractual terms based on risk factors and balanced with business need.

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. Complete awareness and application of business disaster recovery plans at the department level.

Accomplishment: Business Impact Analysis updated in 2017 and final assessment approved by all departments. Business disaster recovery exercise scheduled for September 22, 2017.

This exercise will test CAP's ability to operate through business interruptions. Employees with critical functions will relocate to Salt Gila pumping plant to complete critical tasks as part of the exercise. This exercise is scheduled biannually.

FINANCE & ADMINISTRATION

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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.
		Expected Outcome: Cultivate and maintain positive working relationships with peers at State, County, municipalities and industry. Increase participation by 30% over staff's 2017 participation levels.
		Action Plan: Maintain a transparent procurement program that facilitates the business of CAP to achieve the sound use of public resources (C&PS).
		Expected Outcome: Submit for the Achievement of Excellence in Procurement award and attend reverse trade shows to interact with other public agencies and current and potential suppliers.
Finance	Effectively communicate financial issues to Board, customers and stakeholders	Action Plan: Continuously evaluate and resolve financial threats.
		Expected Outcome: 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. Reports and communications are provided in required timeframes. Provide periodic updates to the Board, as appropriate. Compile financial reporting and communications list, and meeting reporting deadlines. 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 effective financial strategies	Action Plan: Coordinate budget development, reporting, revenues, expenditures, rates, taxes and an appropriate reserve strategy.
		Expected Outcome: Coordinate District-wide budget development and its alignment with future rates' projections. Effectively communicate proposed budget implications to Management, Board and stakeholders. Ensure investments are balanced between safety and investment returns, as well as evaluate State Treasurer investment types and amount of investments in short- and long-term. Perform review and provide possible recommendations by end of 2018, obtain payment discounts and other related types of rebates to generate income or lower expenses when greater than interest income is generated, including credit cards and payment discounts.
		Action Plan: Communicate to Board the financial condition of the Captive at regular intervals. Explore and identify opportunities for expanding utilization of Captive.
		Expected Outcome: Use of Captive will continue to generate cost savings greater than can be found in commercial markets.

FINANCE & ADMINISTRATION

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	<p>Action Plan: Evaluate various methodologies for rates and capital charges for consideration for Stakeholder discussions and ultimate Board review and decisions.</p> <p>Expected Outcome: Scenarios and comparisons developed by the end of 2018.</p>
	Coordinate projected uses of funds with appropriate sources of financing	<p>Action Plan: Evaluate how costs of major expenditures can be properly allocated to the beneficiaries of those expenditures under appropriate contracts and policies.</p> <p>Expected Outcome: Continue to monitor 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 developed by the end of 2019.</p>
	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Action Plan: Maintain a capital replacement plan consistent with maintaining reliability of the system.</p> <p>Expected Outcome: 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.</p>
Project Reliability	Maintain high levels of skills and job proficiency among employees	<p>Action Plan: Provide employee development processes and programs to improve job performance and capabilities.</p> <p>Expected Outcome: Strategically develop new employees and current employees in new positions to establish skill levels required to maintain customer service levels. 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).</p>

FINANCE & ADMINISTRATION

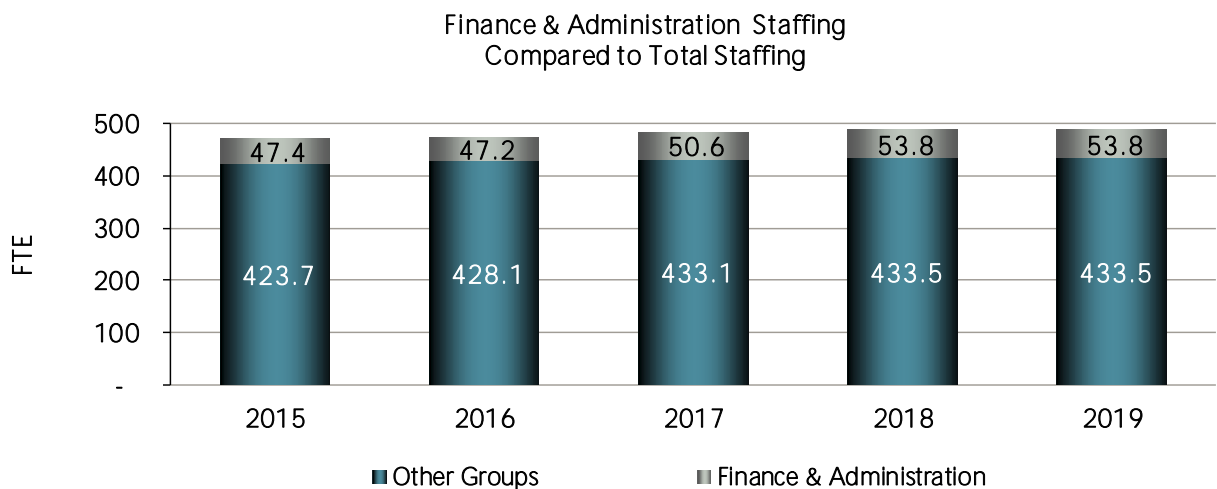
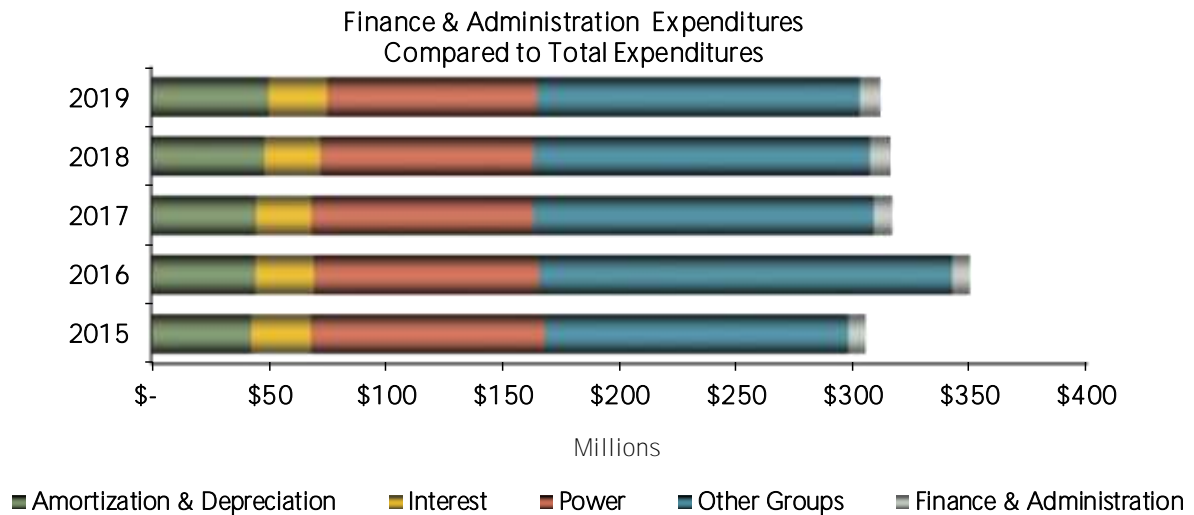
BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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	Maintain preparedness for business and infrastructure disasters and threats	<p>Action Plan: Maintain preparedness for potential pandemics.</p> <p>Expected Outcome: 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. Complete awareness and application of business disaster recovery plans at the department level.</p>
Project Reliability	Continue to address aging infrastructure	<p>Action Plan: Provide sufficient financial resources to repair, rehabilitate, or replace infrastructure, as needed.</p> <p>Expected Outcome: Investigate and develop a long-term plan to optimize and enhance warehouse facilities (MS&D). Evaluate warehouse facility capacity and environmental conditions as applicable to CAP's Asset Management and Capital Improvement Programs.</p>
		<p>Action Plan: Maintain supply chain services that support CAP's Asset Management Program (i.e., C&PS, MC&D).</p> <p>Expected Outcome: Continue tracking Key Performance Indicators (KPIs) and benchmark to industry standards or historical levels to ensure continuous efficiencies and improvement.</p>

FINANCE & ADMINISTRATION BUDGET SUMMARY

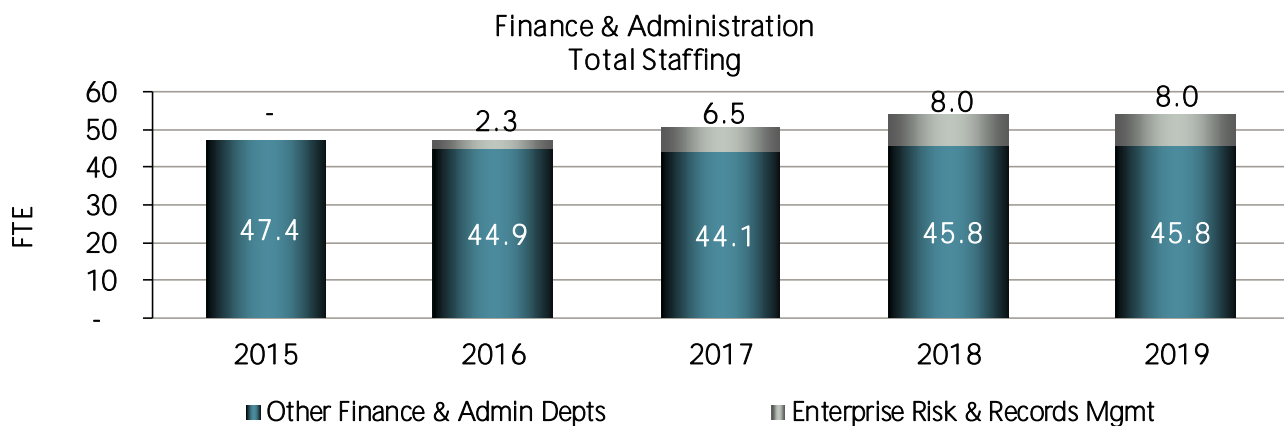
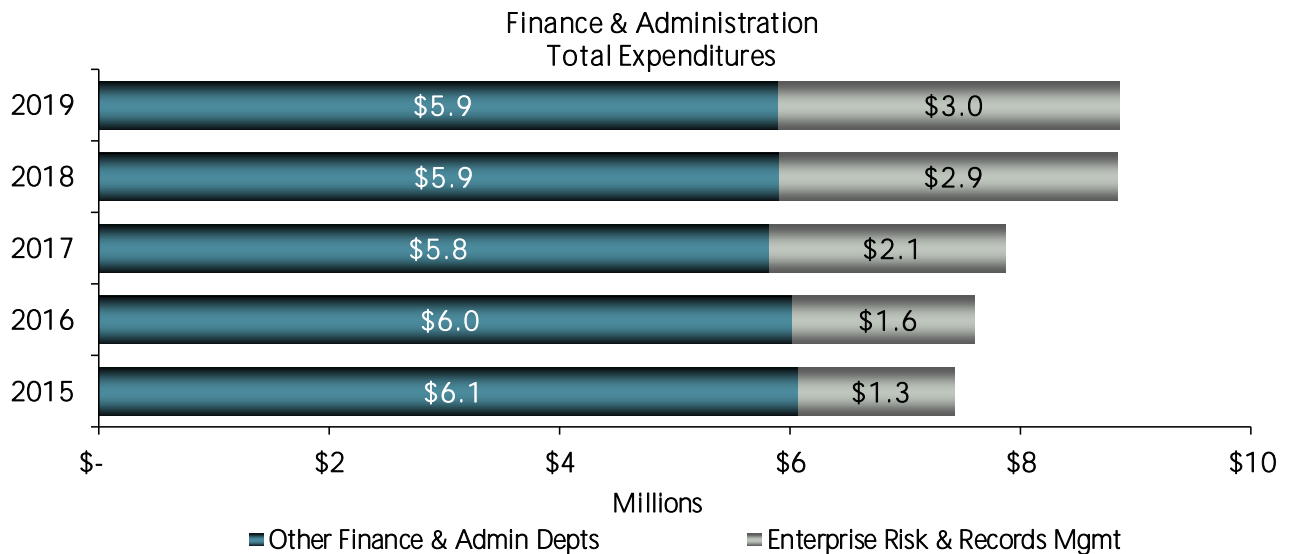
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 3,480	\$ 3,393	\$ 3,745	\$ 4,028	\$ 4,150
Outside services	1,609	2,223	2,014	2,543	2,377
Materials & supplies	869	566	589	656	656
Other expenses	1,369	1,372	1,528	1,617	1,645
Total Operating Expenses	\$ 7,327	\$ 7,554	\$ 7,876	\$ 8,844	\$ 8,828
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 7,327	\$ 7,554	\$ 7,876	\$ 8,844	\$ 8,828
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 7,327	\$ 7,554	\$ 7,876	\$ 8,844	\$ 8,828
Capital Expenditures	95	42	-	-	35
Total Expenditures	\$ 7,422	\$ 7,596	\$ 7,876	\$ 8,844	\$ 8,863
Staffing (FTE)	47.4	47.2	50.6	53.8	53.8



FINANCE & ADMINISTRATION

ENTERPRISE RISK AND RECORDS MANAGEMENT

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ -	\$ 207.0	\$ 565.0	\$ 673.0	\$ 693.0
Outside services	75	72	85	739	741
Materials & supplies	-	2	1	30	15
Other expenses	1,274	1,295	1,409	1,494	1,522
Total Operating Expenses	\$ 1,349	\$ 1,576	\$ 2,060	\$ 2,936	\$ 2,971
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,349	\$ 1,576	\$ 2,060	\$ 2,936	\$ 2,971
CAGRD Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	\$ 1,349	\$ 1,576	\$ 2,060	\$ 2,936	\$ 2,971
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,349	\$ 1,576	\$ 2,060	\$ 2,936	\$ 2,971
Staffing (FTE)	-	2.3	6.5	8.0	8.0



FINANCE & ADMINISTRATION

FINANCE & ACCOUNTING

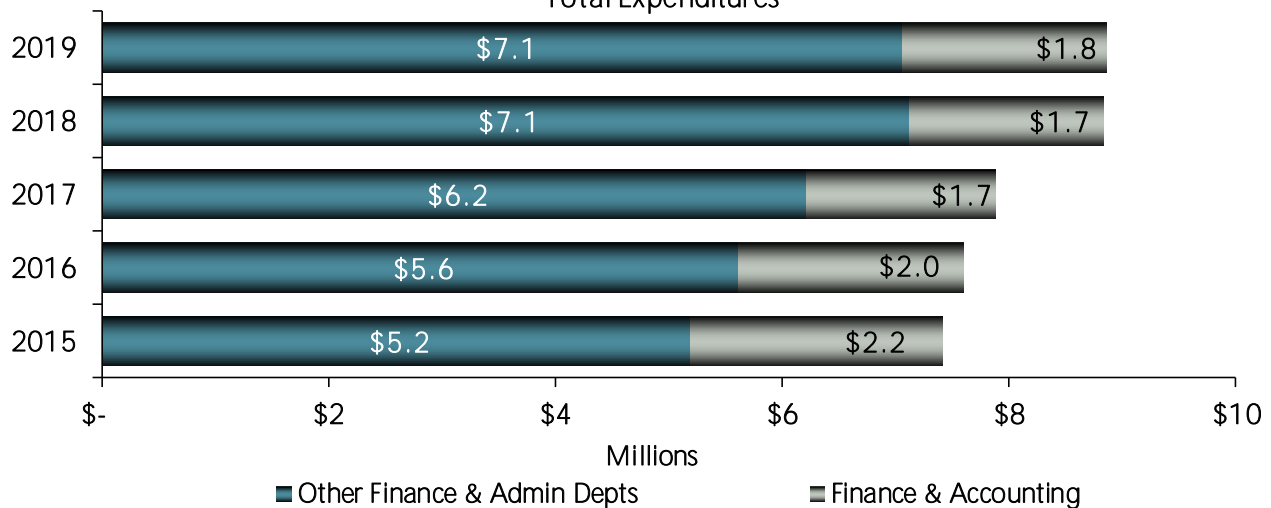
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 1,682	\$ 1,415	\$ 1,383	\$ 1,448	\$ 1,494
Outside services	448	485	225	220	236
Materials & supplies	19	11	6	12	15
Other expenses	47	36	45	49	48
Total Operating Expenses	\$ 2,196	\$ 1,947	\$ 1,659	\$ 1,729	\$ 1,793

Expenditures by Fund

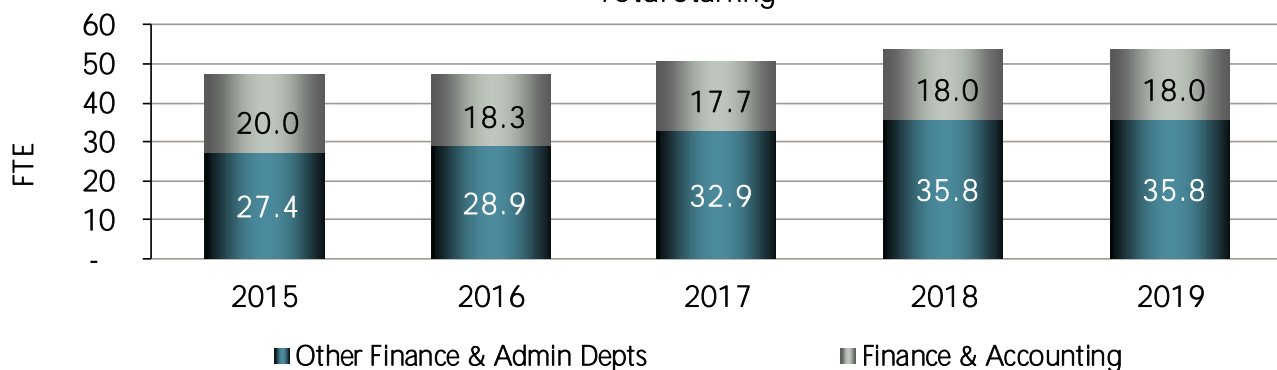
Operating Expenses

General Fund	\$ 2,196	\$ 1,947	\$ 1,659	\$ 1,729	\$ 1,793
CAGR Account					
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 2,196	\$ 1,947	\$ 1,659	\$ 1,729	\$ 1,793
Capital Expenditures	32	34	-	-	-
Total Expenditures	\$ 2,228	\$ 1,981	\$ 1,659	\$ 1,729	\$ 1,793
Staffing (FTE)	20.0	18.3	17.7	18.0	18.0

Finance & Administration Total Expenditures



Finance & Administration Total Staffing



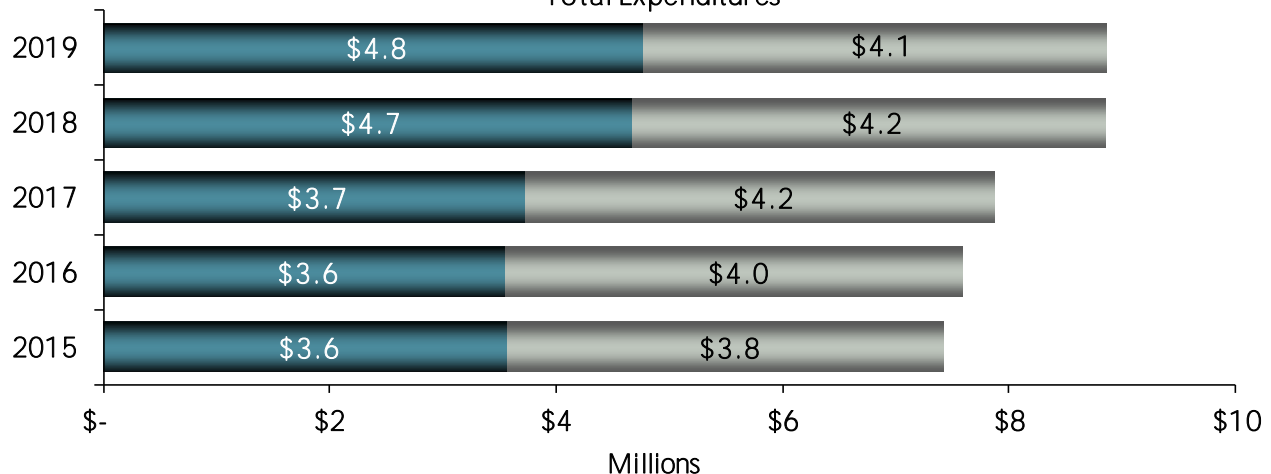
FINANCE & ADMINISTRATION SUPPLY CHAIN & FACILITIES

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 1,798	\$ 1,771	\$ 1,797	\$ 1,907	\$ 1,963
Outside services	1,086	1,666	1,704	1,584	1,400
Materials & supplies	850	554	582	614	626
Other expenses	48	41	74	74	75
Total Operating Expenses	\$ 3,782	\$ 4,032	\$ 4,157	\$ 4,179	\$ 4,064

Expenditures by Fund

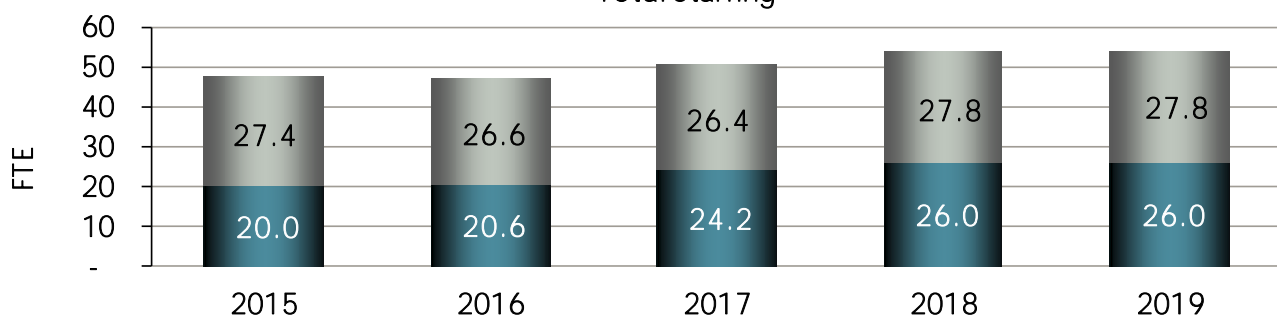
Operating Expenses					
General Fund	\$ 3,782	\$ 4,032	\$ 4,157	\$ 4,179	\$ 4,064
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 3,782	\$ 4,032	\$ 4,157	\$ 4,179	\$ 4,064
Capital Expenditures	63	8	-	-	35
Total Expenditures	\$ 3,845	\$ 4,040	\$ 4,157	\$ 4,179	\$ 4,099
Staffing (FTE)	27.4	26.6	26.4	27.8	27.8

Finance & Administration Total Expenditures



■ Other Finance & Admin Depts. ■ Supply Chain & Facilities

Finance & Administration Total Staffing



■ Other Finance & Admin Depts. ■ Supply Chain & Facilities



PUBLIC AFFAIRS

Mission: Public Affairs is responsible for working closely with the General Manager, the Board of Directors and the Water Policy group to increase the knowledge and awareness of CAP, build relationships with stakeholders and develop and implement strategic plans and related policy for CAP.



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.



The Communications group is responsible for conducting public relations, media, business, community and employee communications programs to increase knowledge, awareness and recognition of CAP, its leadership and management of central and southern Arizona's Colorado River water supplies.



The Legislative Affairs group is responsible for activities and initiatives related to state and federal legislative stakeholders and implementing the Board approved State and Federal legislative agendas.



The Stakeholder Relations & Strategic Development group is responsible for developing relationships and coordinating activities and initiatives related to municipal, tribal and agricultural stakeholders. The group is also responsible for managing the Integrated Strategic Plan.

PUBLIC AFFAIRS

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Leadership & Public Trust	Educate about CAP and improve understanding of water and power issues	<p>Action Plan: Find opportunities for CAP to host or sponsor conferences where CAP's messages are the primary ones. With a measure of CAP sponsoring or partially sponsoring events with universities, colleges, museums, professional organizations, leadership groups, associations, utility alliances, cities and towns and many others. With a target of 15 events per year.</p> <p>Accomplishment: CAP employees and/or Board members regularly participate in 6-8 community presentations, tours and events per year, including public forums, conferences, luncheons, expos, and educational events each week. CAP Communications department launched a more robust education outreach in 2017 and is in classrooms across the county 1-2 times per week. The Department actively seeks speaking engagements with a high degree of success.</p>
		<p>Action Plan: Increase Board and stakeholder interaction by further developing and identifying public speaking opportunities and public presentations. With a measure of placing Board or senior staff in high-profile speaking engagements 4 to 6 times each year. With a target of 4 to 6 each year.</p> <p>Accomplishment: Board and stakeholder interaction increased significantly in 2016 and 2017 through increased speaking opportunities and public presentations. Board and senior staff presented to key stakeholders over 10 times in both 2016 and 2017. Presentations were held at various conferences and meetings including, but not limited to the Sustainable Water Action Network International Conference, Water Resources Research Center (WRRRC) Annual Conference, American Planning Association National Conference, Southern Arizona Leadership Council General Membership Meeting, Tucson Metro Chamber of Commerce Quarterly Public Policy Breakfast, Arizona Municipal Utilities Leadership Institute (AMULI), Agribusiness and Water Council of Arizona Annual Meeting and Water Conference, Arizona Chamber/Arizona Mexico Commission Annual Environmental Summit, Water Law Institute Annual One-Day Conference: Colorado River Drought, Shortage and Sustainability in Arizona, Arizona-Mexico Commission Water Workshop, and Arizona House of Representatives Land, Agriculture and Rural Affairs Committee.</p>
		<p>Action Plan: Encourage increased leadership, outreach and public involvement of CAP within the greater community and support CAP employees' volunteer activities. With a measure and target of participating in 5 community events and instituting 12 volunteer activities per year.</p> <p>Accomplishment: CAP employees organized and participated in 12 volunteer activities per year including workdays, blood drives, donation drives. CAP volunteers were recognized at the annual President's Award for Community Service luncheon. CAP also launched the Protect Lake Mead campaign which continues to gain momentum.</p>

PUBLIC AFFAIRS

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
	Build a strong CAP work community	<p>Action Plan: Build relationships among employees and work groups and communicate the intent and purpose of strategic initiatives, policies and business decisions so that they are understood and supported throughout the organization. With a measure and target of producing 3 Open Channels; update CAP Connections daily; hold 2 Beyond the Buzz Meetings; coordinate annual Take Your Kids to Work Day; communicate Big 5 goals quarterly.</p> <p>Accomplishment: CAP provides semi-annual Beyond the Buzz meetings, daily online news and information, and internal engagement events such as Take Your Kids to Work Day and Safety Week to help build employee working relationships. Other engagement activities include CAP Turnouts (a volunteer program), social media quizzes and contests, online activities and a bi-monthly blog from the GM. A 2017 / 2018 internal communications plan was launched in January for the GM. CAP's volunteer program, CAP Turnouts, was recognized in 2016 by Phoenix Business Journal for its outstanding service to the community for two years running.</p>
Leadership & Public Trust	Improve relationships with other stakeholders	<p>Action Plan: Provide more detailed information on website regarding activities and the District, issues of interest, priorities and responsibilities of the Board, including specific contact information, in a manner that is informative to the public. With a measure of communicating ongoing status of shortage and drought on our website and through CAP News. With a target of collaboration with key stakeholders including ADWR, Agribusiness and Water Council, Arizona Municipal Water Users Association (AMWUA), Southern Arizona Water Users Association (SAWUA) and others to developing key messages regarding drought and shortage preparations and planning.</p> <p>Accomplishment: CAP website was updated in all key areas within 24 hours of important events of change. Our main CAP website traffic remained fairly constant at approximately 11,000 visits per month. Information is posted multiple times per week on Facebook and Twitter to promote current activities and events. CAP currently has more than 3,000 followers on the following social media platforms: Twitter, Facebook and Instagram. The CAP YouTube channel was used to promote CAP Channels video programs about topical business issues. In September 2014, the average social media impressions were in the 6000s; as of 2017 that has almost doubled to over 11,000 impressions.</p>

PUBLIC AFFAIRS

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
		<p>Action Plan: Execute state and federal measures outlined in the Legislative Outreach Plan. With a measure and target of completing minimum 75% of items in plan.</p> <p>Action Plan: Worked with the CAWCD Board, internal CAP team, and our state contract lobbyists. CAP's Legislative Affairs team successfully addressed over 75% of the priorities identified in its 2016 state legislative agenda. Working directly with the Administration, Congressional and Federal agency staff as well as through consultants, CAP's legislative team successfully implemented its 2016 federal legislative agenda approved by the Board and continued to work collaboratively with all stakeholders, legislators and state and federal agencies to resolve rulemaking that affected CAP.</p>
Leadership & Public Trust	Actively engage at national, state and regional levels to promote the interest of CAP and its constituents	<p>Action Plan: Maintain CAP's participation in national organizations that advocate for water interests in Washington, D.C. With a measure of participating regularly in the following organizations: National Water Resources Association, Family Farm Alliance, American Water Works Association, Association of Metropolitan Water Agencies, and Western Urban Water Coalition. With a target of full completion of goal.</p> <p>Accomplishment: Staff participated in summer and annual National Water Resources Association Western Water meetings and participated in a task force roundtable discussion. Staff also participated in Family Farm Alliance conferences. Staff attended National Congress of American Indian's Tribal Water Policy Summit in Phoenix, Arizona, as well as, participated in the American Water Works Association Annual Conference. In addition, staff served on multiple committees with the Colorado River Water Users Association and participated in Tribal Water Law Conference.</p> <p>Action Plan: Participate in state water management activities that involve CAP interests. With a measure and target of participating regularly in the following organizations: Quarterly CAP/ADWR meetings, Arizona Chamber of Commerce water committees, Greater Phoenix Chamber of Commerce water committees, AMWUA board meetings, SRP board meetings and Arizona Water Bank Association meetings.</p> <p>Accomplishment: Staff participated in state water management activities that involve CAP interests, and regularly participated in ADWR meetings, Arizona Chamber of Commerce water committees, Greater Phoenix Chamber of Commerce water committees, AMWUA board meetings, SRP board meetings and Arizona Water Bank Association meetings.</p>

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
	Actively engage at national, state and regional levels to promote the interest of CAP and its constituents	<p>Action Plans: Continue to develop relationships with municipal stakeholders and organizations. With a measure and target of twelve newsletters annually and 3 briefing and tours annually; will meet these quotas for 2016 and 2017.</p> <p>Accomplishment: Staff developed twelve newsletters for each year of 2016 and 2017 and held over 24 meetings with various stakeholders as well as coordinated joint meetings with many municipalities. Staff hosted East and West Valley Mayors and Managers lunch and dinner meetings, conducted multiple stakeholder workshops on topics including Colorado River updates and shortage, System Use Agreement, DCP planning and rates. In addition, they hosted several mayors and council members for tours of CAP.</p>
Leadership & Public Trust	Improve working relationships with Native American tribes, municipal and agricultural customers	<p>Action Plans: Strengthen relationships with agricultural, municipal and Native American tribal stakeholders and organizations. With a measure and target of organizing and/or holding a minimum of 3 meetings per year with tribal and agricultural stakeholders, and monthly meetings with municipal customers.</p> <p>Accomplishment: Staff continued to strengthen relationships with agricultural, municipal and Native American tribal stakeholders and organizations by meeting with seven Tribes and hosting several meetings with agricultural stakeholders and municipal customers.</p>
	Implement Strategic Planning that reflects the Board's policies and directions, and that links to organization-wide business planning	<p>Action Plans: Manage and update the CAP Internal Strategic Plan to ensure continuing alignment with the Board's Strategic Plan. With a measure and target of meeting the goal of managing and updating CAP Internal Strategic Plan ensuring alignment with the Board's Strategic Plan.</p> <p>Accomplishment: Staff managed the close-out of the 2011 Strategic Plan, identified alignment and reporting challenges following the reorganization of CAP and developed a plan to address issues as part of 2017 Integrated Strategic Plan development and merged Business Plan and Strategic Plans for improved efficiencies and alignment, resulting in the introduction of the 2017 Integrated Strategic Plan.</p>
		<p>Action Plans: Work with the Board of Directors to update the 2010 CAWCD Board of Directors Strategic Plan. With a measure and target of publishing the updated plan in early 2016.</p> <p>Accomplishment: Staff supported work of Strategic Planning Task Force. Strategic Planning Task Force published updated 2016 CAWCD Board of Directors Strategic Plan in March 2016.</p>

PUBLIC AFFAIRS

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Maintain a safe, healthy and secure work environment	<p>Action Plan: Promote healthy habits in the workforce. Enhance CAP's wellness program to focus on multiple health-related factors. With a measure of producing safety-related communications pieces including Bathroom Billboards, Safety Week Guidebook, Safety Video and other miscellaneous communications. With a target of 52 Bathroom Billboards, Safety Week Guidebook and Safety Video.</p> <p>Accomplishment: CAP Communications department produced 52 bathroom billboards, Safety Week videos, promotional items, banners, posters and guidebook. In addition, produced multiple safety-focused CAP Connections articles.</p>
Power	Actively manage and respond to legislative, legal and regulatory issues impacting NGS	<p>Action Plans: Continue to work collaboratively with all stakeholders, legislators and state and federal agencies to further accomplish resolution to the EPA's NGS BART and greenhouse gas determinations and other rulemaking that recognizes the economic interests of CAP and its customers and constituents. With a measure and target of meeting the goal of continuing to work collaboratively with all stakeholders, legislators and state and federal agencies to form resolution to the EPA's NGS BART and greenhouse gas determinations and other rulemaking.</p> <p>Accomplishment: Staff attended multiple NGS public meetings on the draft Environmental Impact Statement in Phoenix and both Hopi and Navajo tribal lands. Participated in multiple coordinating meetings with BOR related to NGS, and in stakeholder outreach activities, as well as message development related to potential NGS closure and participated in Power Task Force issues related to potential closure.</p>

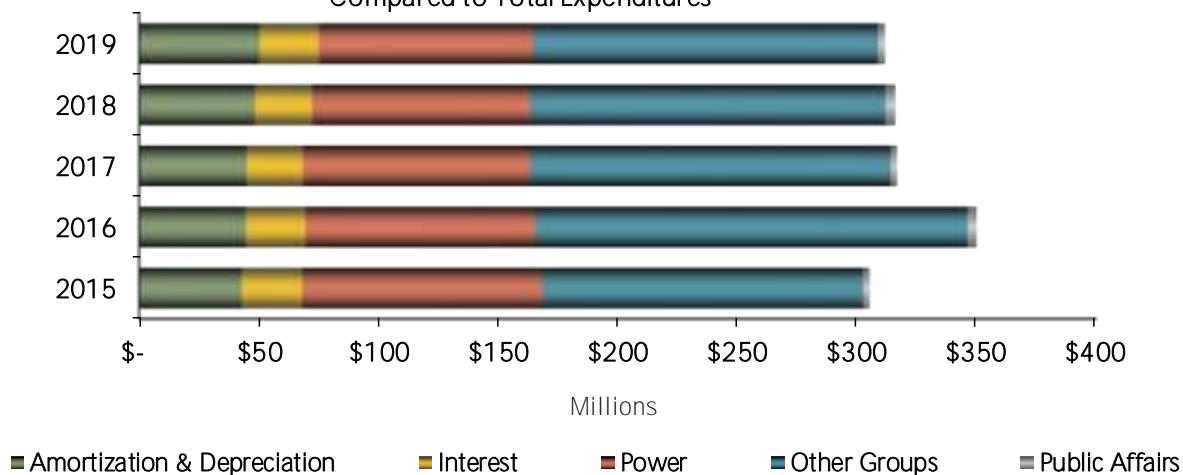
BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 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 in 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, council members and SRP Board of Directors.)
		Action Plan: Maintain and evolve the Protect Lake Mead campaign.
		Expected Outcome: Increase number of social media followers by 25% by end of 2018 and 35% by end of 2019.
		Action Plan: Provide media training for all executive leadership including Board members, Directors and designated Managers.
		Expected Outcome: By end of 2019 75% of executive leadership will have completed media training.
		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.
		Expected Outcome: Conduct internal Public Affairs training for executive staff and managers by 2018 and create and develop internal Public Affairs policy.
	Improve relationships with customers and stakeholders	Action Plan: Survey customers and key stakeholders on a periodic basis.
		Expected Outcome: Develop and administer a stakeholder survey.
Water Supply	Optimize reliability and sustainability of CAP water supply	Action Plan: Regularly meet and engage a range of CAP stakeholders and interests.
		Expected Outcome: Increase stakeholder outreach meetings by 25% by end of 2019.
		Action Plan: Actively influence, develop and implement messaging on Colorado River and other water and resource decision making.
		Expected Outcome: Public Affairs & Water Policy staff will coordinate with executive leadership to actively influence the development and implementation of Colorado River messaging.
Power	Maintain existing generation resources until appropriate alternatives are available	Action Plan: Monitor and aggressively protect and promote CAP's interests relating to NGS.
		Expected Outcome: Support the Power Task Force.

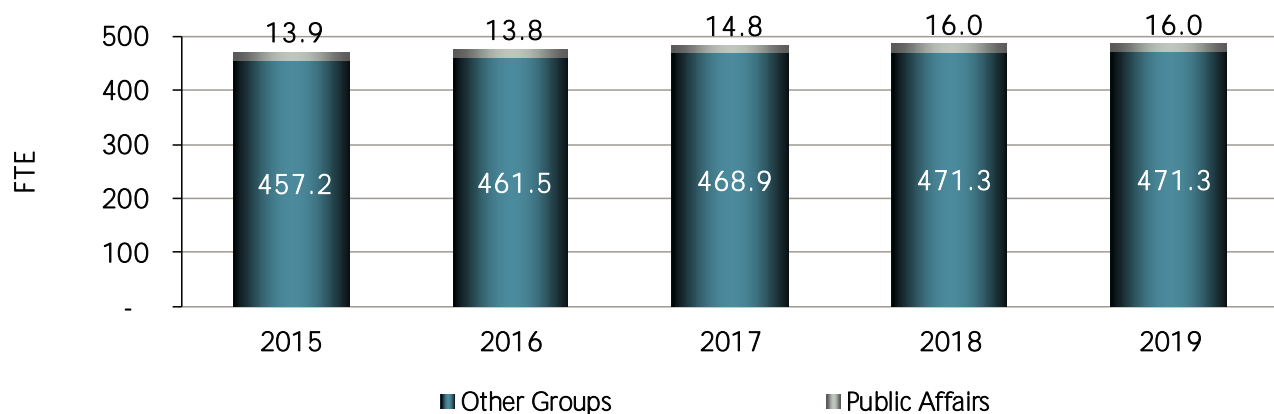
PUBLIC AFFAIRS BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 1,556	\$ 1,509	\$ 1,416	\$ 1,580	\$ 1,626
Outside services	1,048	2,161	979	2,170	963
Materials & supplies	13	21	18	18	18
Other expenses	155	141	233	223	224
Total Operating Expenses	\$ 2,772	\$ 3,832	\$ 2,646	\$ 3,991	\$ 2,831
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 2,772	\$ 3,832	\$ 2,646	\$ 3,991	\$ 2,831
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 2,772	\$ 3,832	\$ 2,646	\$ 3,991	\$ 2,831
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 2,772	\$ 3,832	\$ 2,646	\$ 3,991	\$ 2,831
Staffing (FTE)	13.9	13.8	14.8	16.0	16.0

Public Affairs Expenditures
Compared to Total Expenditures

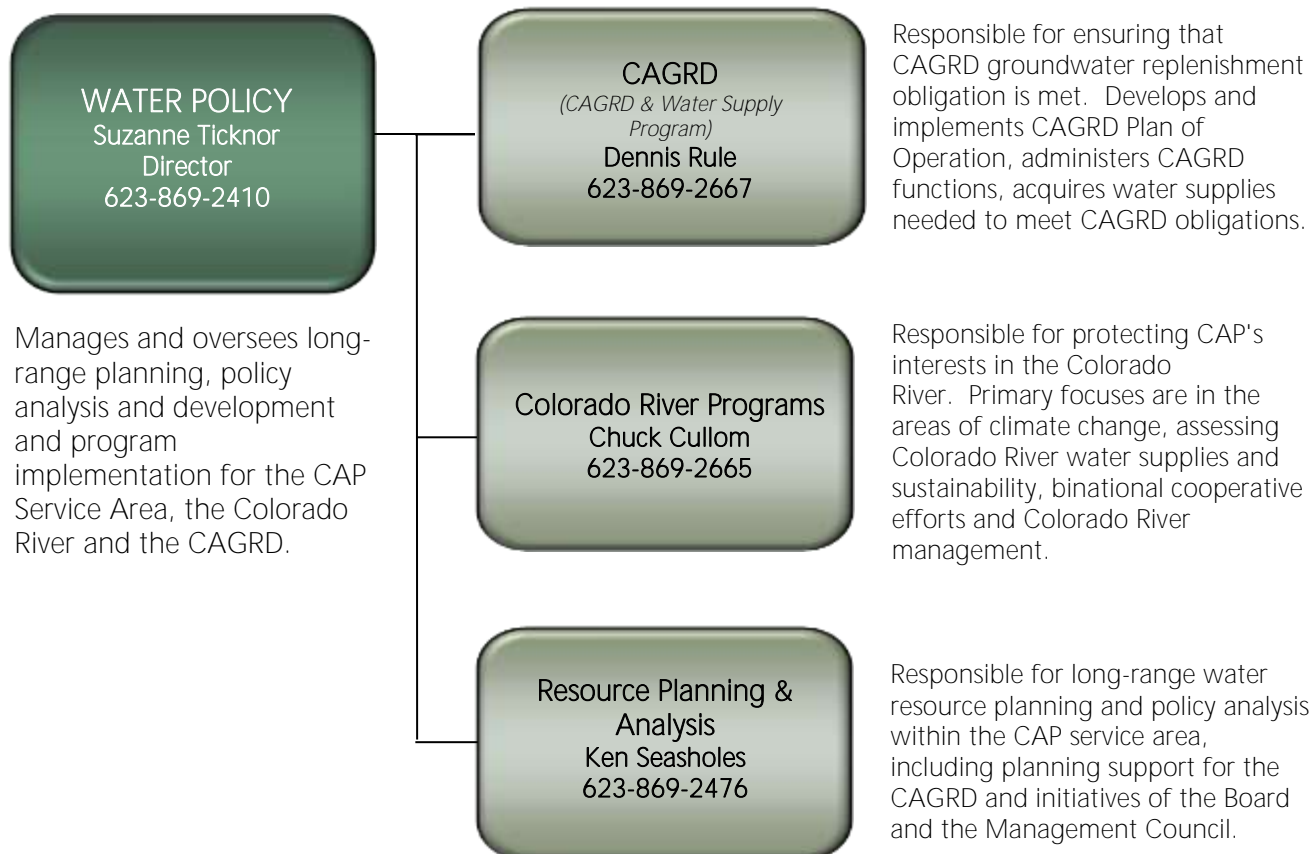


Public Affairs Staffing
Compared to Total Staffing



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.



WATER POLICY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Water Supply	Manage the Colorado River to optimize CAP water availability, augment supplies and manage risk	<p>Action Plan: Implement interstate cooperative agreements to conserve Colorado River water and protect elevations in Lake Mead/Powell. With a measure of providing \$2M to Pilot System Conservation Agreement and related programs to conserve Colorado River water with a target of 100% completion.</p> <p>Accomplishment: Staff implemented expenditure of \$2 million through the Pilot System Conservation Program.</p>
	Participate in management of the Colorado River to optimize CAP water availability	<p>Action Plan: Participate in implementation of Minute 319 and development of a successor agreement with Mexico. With a measure of completing Minute 319 commitments including payment of \$833,333.33 for Pilot Conservation Project, and prepare/present framework for successor agreement and present to CAWCD Board for consideration with a target of 100% completion.</p> <p>Accomplishment: CAWCD provided the requisite funding for Minute 319 commitments. Staff presented a framework for Minute 32x and related domestic agreements to the Board.</p>
	Identify and manage risks posed by shortage, drought and climate change	<p>Action Plan: Present probabilities for the risk of shortage and identify approaches to reduce the risks addressing structural imbalance including losses in the Lower Basin and evaporation losses. With a measure and target of providing updates on risk of shortage to Board. Prepare plan to address components of structural deficit, including losses in Lower Basin and present to the CAWCD Board. Implement \$150k per year for snowpack augmentation or other appropriate water augmentation programs.</p> <p>Accomplishment: Staff continued to provide assessments of risks, including risk of shortage, as a part of routine updates to the Board. Completed By-pass Flows Workgroup efforts, resulting in an agreement with the Bureau to reduce losses below Imperial Dam (the 242 Well Field Agreement). Staff and management have participated and developed with ADWR the Drought Contingency Plan, an interim agreement towards the long-term goal of addressing the structural deficit in the Lower Basin. Staff continues to participate in snowpack augmentation efforts and the development of local and binational de-sal efforts to augment CAP supplies.</p>
	Finalize agreements and implement CAP's ability to wheel non-project water	<p>Action Plan: Reach agreement with the BOR and stakeholders on a CAP wheeling program. With a measure of standard form wheeling agreement approved by the Bureau and Board with a target of agreement with the Bureau accomplished in 2016 and wheeling program implemented in 2017.</p> <p>Accomplishment: The Board executed the System Use Agreement on February 2, 2017.</p>

WATER POLICY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
	Work collaboratively to evaluate potential future supply and demand imbalances in the CAP service area	<p>Action Plan: Provide timely analysis of supply & demand issues in the CAP service area for use in forecasting and increasing understanding of resource options and issues. With a measure of Resource Planning & Analysis's (RP&A) forecast products regularly used by internal and external customers and stakeholders. With a target of projections produced for long-range financial plan in 2016. Publication of a comprehensive analysis of supply and demand in 2017</p> <p>Accomplishment: RP&A's projection and analysis of supply and demand was used in support of DCP proposals. Modeling tools were used in support of regional planning efforts in the West Valley and the Tucson AMA. RP&A's projection of supply and demand was used in support of updated recovery planning targets.</p>
Water Supply	Prepare for recovery of water stored by the AWBA	<p>Action Plan: Implement appropriate aspects of the Joint Recovery Plan. With the measure of key agreements reached with recovery partners for near-term capacity, and refined analysis of mid and long-range recovery capacity. With a target of securing recovery agreements in each Active Management Area (AMA) in 2016. Will reach agreement with Bureau on firming framework by 2017 and complete feasibility studies and design work to begin permitting facilities in 2017.</p> <p>Accomplishment: Recovery exchange capacity secured in Pinal with Arizona Water Company, in Phoenix AMA with the CAGR, and in the Tucson AMA (2017). Firming framework agreed to with the Bureau as part of System Use Agreement. Tonopah Desert Recharge Project (TDRP) feasibility studies included exploratory boreholes, test well and updated analysis of well field design and water quality treatment.</p>
	Respond to changing reliability needs of our customers	<p>Action Plan: Develop Supplemental Firming program for M&I subcontractors. With a measure of CAP offering supplemental firming agreements with interested parties with a target of reaching agreement on supplemental firming framework in 2016 and execution of firming agreements in 2017.</p> <p>Accomplishment: Exchanges between long-term contractors and parties holding non-project water (including recovered LTSCs) authorized as part of System Use Agreement. Exchange Implementation Agreements with Phoenix, Tucson and Metro completed in 2017.</p>

WATER POLICY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Replenishment	Acquire and maintain an appropriate mix of long-term and short-term water supplies to meet future obligations.	<p>Action Plan: Acquire sufficient water supplies to meet current obligations. With a measure of acre-feet of water supply acquired to meet annual obligations with the target of acquiring up to 5,037 AF/yr of additional water supplies by the end of 2017.</p> <p>Accomplishment: During 2016 and anticipated through the remainder of 2017, CAGRD will acquire 1,400 AF of long-term annual supply in addition to 57,200 AF of LTSC. Together, these supplies will achieve the goal of offsetting an additional 5,037 AF of replenishment obligation for the next 15 years.</p>
	Manage CAGRD's annual performance of replenishment activities	<p>Action Plan: Meet annual replenishment obligations. With a measure of acre-feet of water acquired for replenishment reserve and acre-feet of water replenished to meet annual obligations with the target of ADWR approval of 2015 and 2016 Replenishment District annual reports.</p> <p>Accomplishment: CAGRD stored and/or purchased 13,610 AF for the Replenishment Reserve in 2016. For 2017, CAGRD added an additional 13,250 AF to the Replenishment Reserve account. ADWR has approved the CAGRD annual report submitted in 2016, which covered the 2015 report year. CAGRD offset a total of 22,922 AF of replenishment obligation in 2015. The 2016 CAGRD annual report was submitted in August of 2017, and received ADWR approval.</p>
		<p>Action Plan: Produce an Enhanced CAGRD Annual Report each year. With a measure and target of publication and distribution of document to CAGRD stakeholder list with the target of producing and distributing Enhanced Annual Report by end of October 2016 and 2017.</p> <p>Accomplishment: The 2015 CAGRD Annual Operations Report was completed in October 2016. This report was reviewed before the CAGRD & Underground Storage Committee, submitted to ADWR and posted to the CAGRD website. The 2016 CAGRD Annual Operations Report was completed and published in October 2017.</p>
	Regularly review CAGRD status as compared to projections in the Plan of Operation	<p>Action Plan: Contribute to long-range planning and analysis for the CAGRD. With a measure of RP&A's projections and analysis are incorporated by the CAGRD. With a target of updated methodology for Annual Membership Dues implemented in 2016. Enhanced Annual Reporting efforts in 2016 and 2017.</p> <p>Accomplishment: Resource Planning & Analysis continued to provide long-range planning support to the CAGRD. Helped in update of the CAGRD's Annual Membership Dues methodology to reflect adoption of the 2015 Plan of Operation. Provided data to populate the calculations for CAGRD reliance factor for MSA's, and Service Area Model (CAP:SAM) data formed the basis of values for the Member Land calculations. Contributed to the composition of the CAGRD's Enhanced Annual Reporting.</p>

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Water Supply		<p>Action Plan: Actively influence, participate in and implement Colorado River management decisions.</p> <p>Expected Outcome: Technical and legal analysis has been performed in preparation for re-consultation under the 2007 Guidelines (to extend/modify/renew the Guidelines beyond 2026). In addition, management and staff are members of key Basin technical, policy and negotiation groups.</p>
	Optimize reliability and sustainability of CAP water supply	<p>Action Plan: Actively participate in decision making regarding binational programs.</p> <p>Expected Outcome: CAP staff have reviewed and commented on decree accounting related to binational Intentionally Created Surplus (ICS) and associated conservation programs related to implementation of Minute 319. In addition, management and staff are members of key binational technical, policy and negotiation groups related to execution of Minute 32x, and other binational efforts, including augmentation.</p>
		<p>Action Plan: Identify, develop and implement programs to address near-term risks to Colorado River water supply and the structural deficit</p> <p>Expected Outcome: The Board approved a Drought Contingency Plan or alternative and the Arizona intrastate implementation plan for the DCP. Routine updates are provided to the Board and key stakeholders on Colorado River conditions, and staff are actively engaged in conservation and forbearance activities in the Basin.</p>
	Reduce risk associated with CAP's junior priority	
	Manage risk and opportunities posed by climate change	<p>Action Plan: Conduct a scenario planning process to develop climate change adaptation strategies.</p> <p>Expected Outcome: A CAP Climate Adaptation Plan is completed.</p>
	Implement recovery plan	<p>Action Plan: Implement recovery plan in cooperation with stakeholders to improve connection between Arizona Water Banking Authority storage and CAP recovery</p> <p>Expected Outcome: An updated intergovernmental agreement (IGA) between the AWBA and CAWCD has been executed covering credit distribution procedures and related policies; and an update to the 2014 Joint Recovery Plan has been completed with meaningful input from stakeholders. Ad Hoc Recovery committee has been reconvened, and CAP co-leads the process with AWBA and ADWR.</p> <p>Action Plan: Develop cooperative agreements to implement recovery (where appropriate), including direct recovery and recovery through exchange.</p> <p>Expected Outcome: Agreements have been signed for recovery capacity, including recovery exchange agreements and indirect recovery partnership agreements.</p>

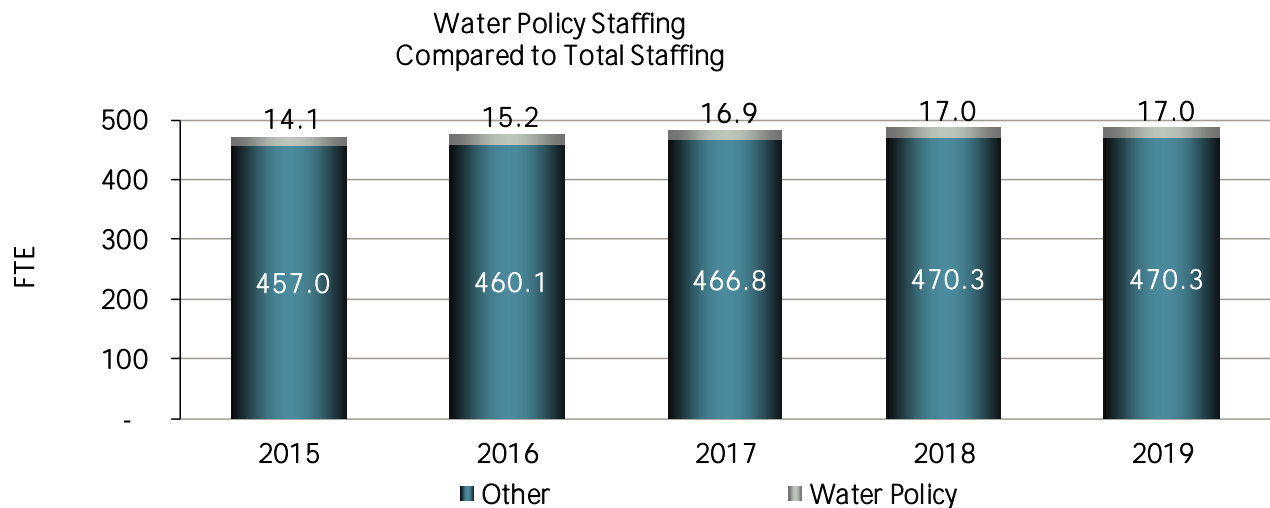
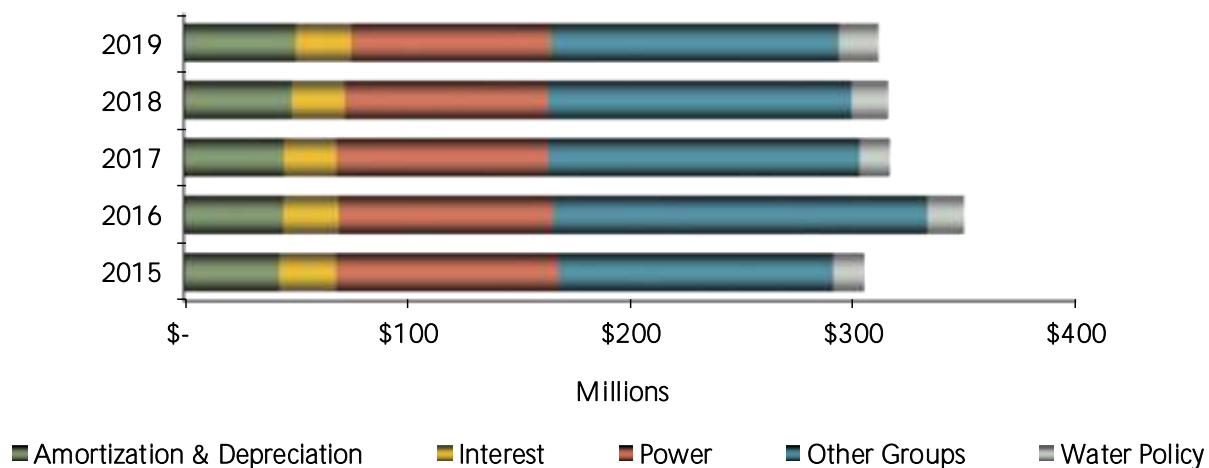
BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Water Supply	Complete and implement Water Wheeling Agreements	Action Plan: Complete and implement a standard form wheeling agreement and associated firming and wheeling contracts.
		Expected Outcome: A standard form wheeling agreement has been approved by CAP and BOR; and a standard form Firming Agreement and Exchange Implementation Agreement have been finalized and approved by the Bureau. In addition, uniform water quality standards for wheeling non-project water have been finalized by CAP and Reclamation; and continue working with the Board Water Quality Standards Task Force.
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
		Expected Outcome: Acquire additional water supplies sufficient to meet increasing replenishment obligations through CY2018. Continue to acquire water supplies for the Replenishment Reserve in Phoenix and Tucson AMAs.
		Action Plan: Develop and implement revenue generation mechanisms (i.e., bonding, rates, fees) that are sufficient to carry out the Water Supply Acquisition Program.
		Expected Outcome: Complete studies of the existing CAGR rate structure to provide a basis for recommending changes that would result in greater revenue stability and ensure equity among members.
Replenishment	Review CAGR status as compared to projections in the Plan of Operation	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.
		Action Plan: Schedule annual updates to the Board and Legislature on CAGR obligations and activities.
		Expected Outcome: Staff has continued to provide annual updates on the CAGR to the Board and to the State legislature.
Replenishment	Review CAGR status as compared to projections in the Plan of Operation	Action Plan: Ensure adequate funding of CAGR administration and long-term operations
		Expected Outcome: Current studies to evaluate the existing CAGR rate structure are 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.

WATER POLICY BUDGET SUMMARY

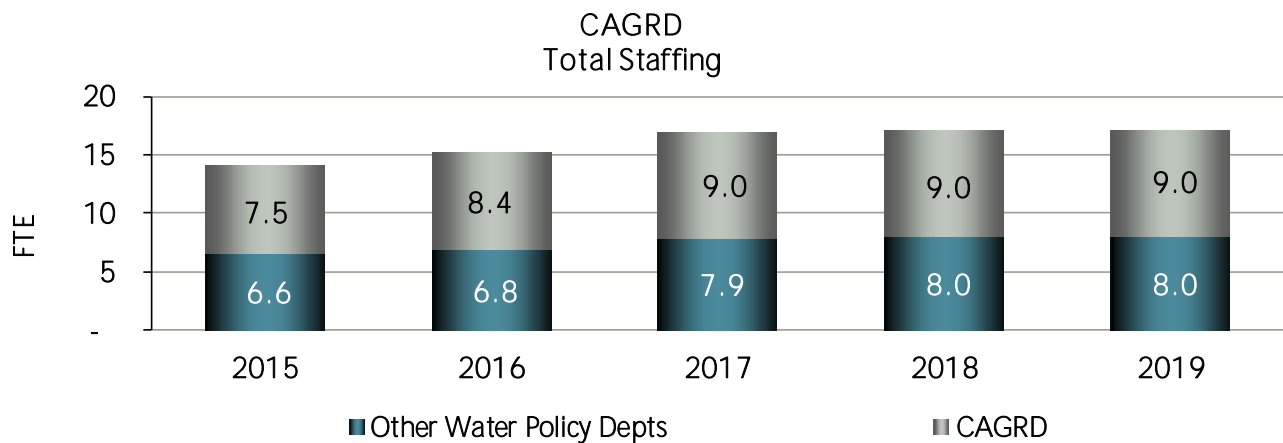
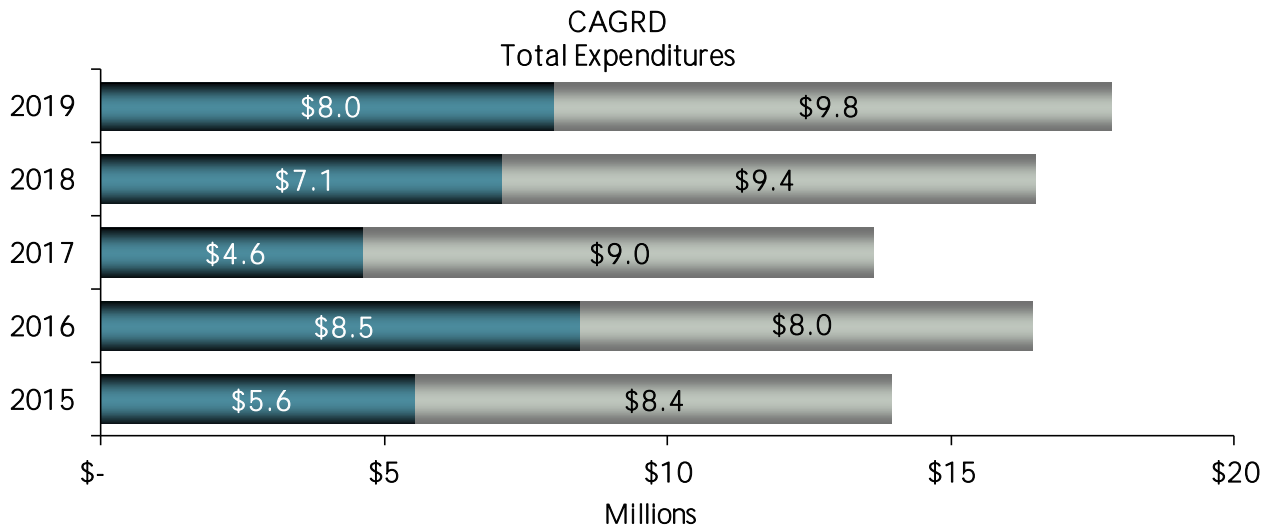
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 1,300	\$ 1,438	\$ 1,590	\$ 1,605	\$ 1,653
Outside services	4,203	5,492	1,827	3,392	2,866
Water for recharge	5,715	5,461	7,154	7,141	8,158
Materials & supplies	-	1	2	-	-
Other expenses	2,741	3,939	3,076	4,361	5,168
Total Operating Expenses	\$ 13,959	\$ 16,331	\$ 13,649	\$ 16,499	\$ 17,845
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,650	\$ 8,500	\$ 4,742	\$ 7,217	\$ 8,126
CAGR Account	8,309	7,831	8,907	9,282	9,719
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 13,959	\$ 16,331	\$ 13,649	\$ 16,499	\$ 17,845
Capital Expenditures	-	96	-	-	-
Total Expenditures	\$ 13,959	\$ 16,427	\$ 13,649	\$ 16,499	\$ 17,845
Staffing (FTE)	14.1	15.2	16.9	17.0	17.0

Water Policy Expenditures
Compared to Total Expenditures



WATER POLICY CAGRD

Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 713	\$ 812	\$ 843	\$ 825	\$ 850
Outside services	1,947	1,654	981	1,336	735
Water for recharge	5,715	5,461	7,154	7,141	8,158
Materials & supplies	-	-	-	-	-
Other expenses	27	25	31	100	100
Total Operating Expenses	\$ 8,402	\$ 7,952	\$ 9,009	\$ 9,402	\$ 9,843
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 93	\$ 121	\$ 102	\$ 120	\$ 124
CAGRD Account	8,309	7,831	8,907	9,282	9,719
Other Funds and Accounts					
Total Operating Expenses	\$ 8,402	\$ 7,952	\$ 9,009	\$ 9,402	\$ 9,843
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 8,402	\$ 7,952	\$ 9,009	\$ 9,402	\$ 9,843
Staffing (FTE)	7.5	8.4	9.0	9.0	9.0

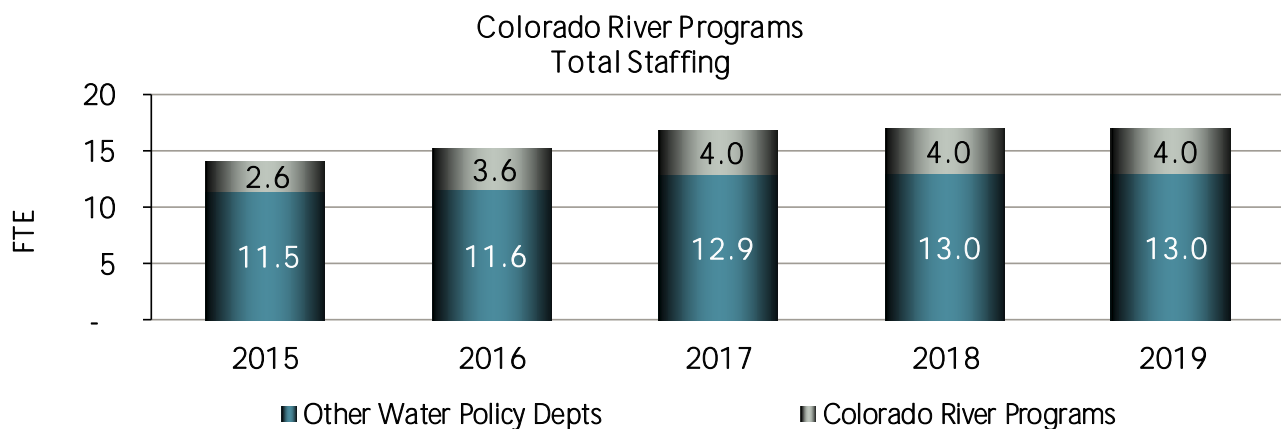
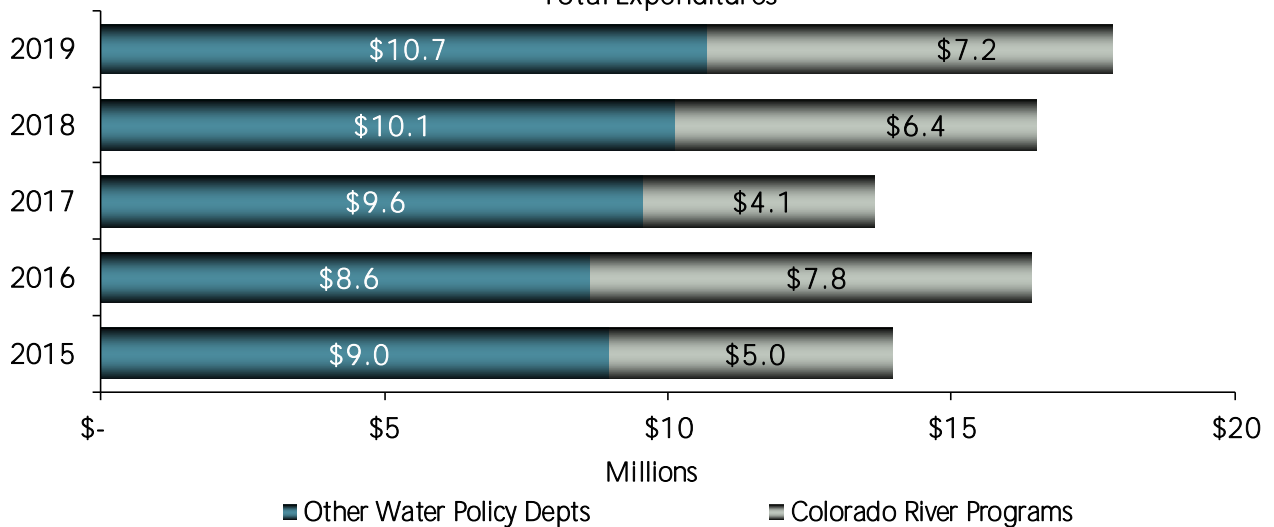


WATER POLICY COLORADO RIVER PROGRAMS

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 236	\$ 332	\$ 376	\$ 389	\$ 400
Outside services	2,040	3,461	679	1,733	1,718
Materials & supplies	-	1	1	-	-
Water for recharge					
Other expenses	2,699	3,905	3,026	4,238	5,048
Total Operating Expenses	\$ 4,975	\$ 7,699	\$ 4,082	\$ 6,360	\$ 7,166

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,975	\$ 7,699	\$ 4,082	\$ 6,360	\$ 7,166
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 4,975	\$ 7,699	\$ 4,082	\$ 6,360	\$ 7,166
Capital Expenditures	-	96	-	-	-
Total Expenditures	\$ 4,975	\$ 7,795	\$ 4,082	\$ 6,360	\$ 7,166
Staffing (FTE)	2.6	3.6	4.0	4.0	4.0

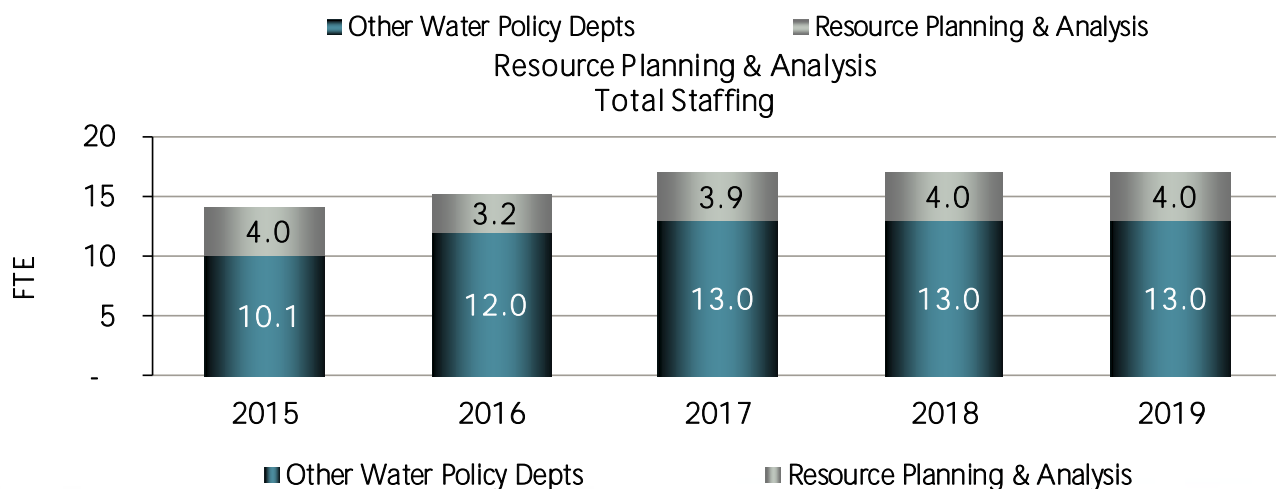
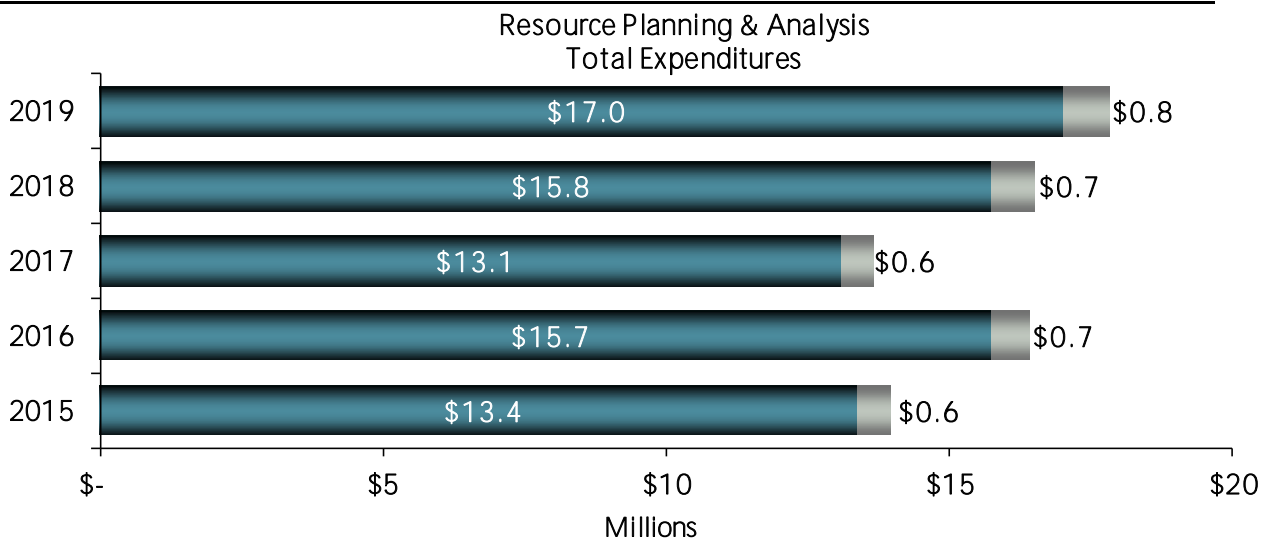
Colorado River Programs
Total Expenditures



WATER POLICY RESOURCE PLANNING & ANALYSIS

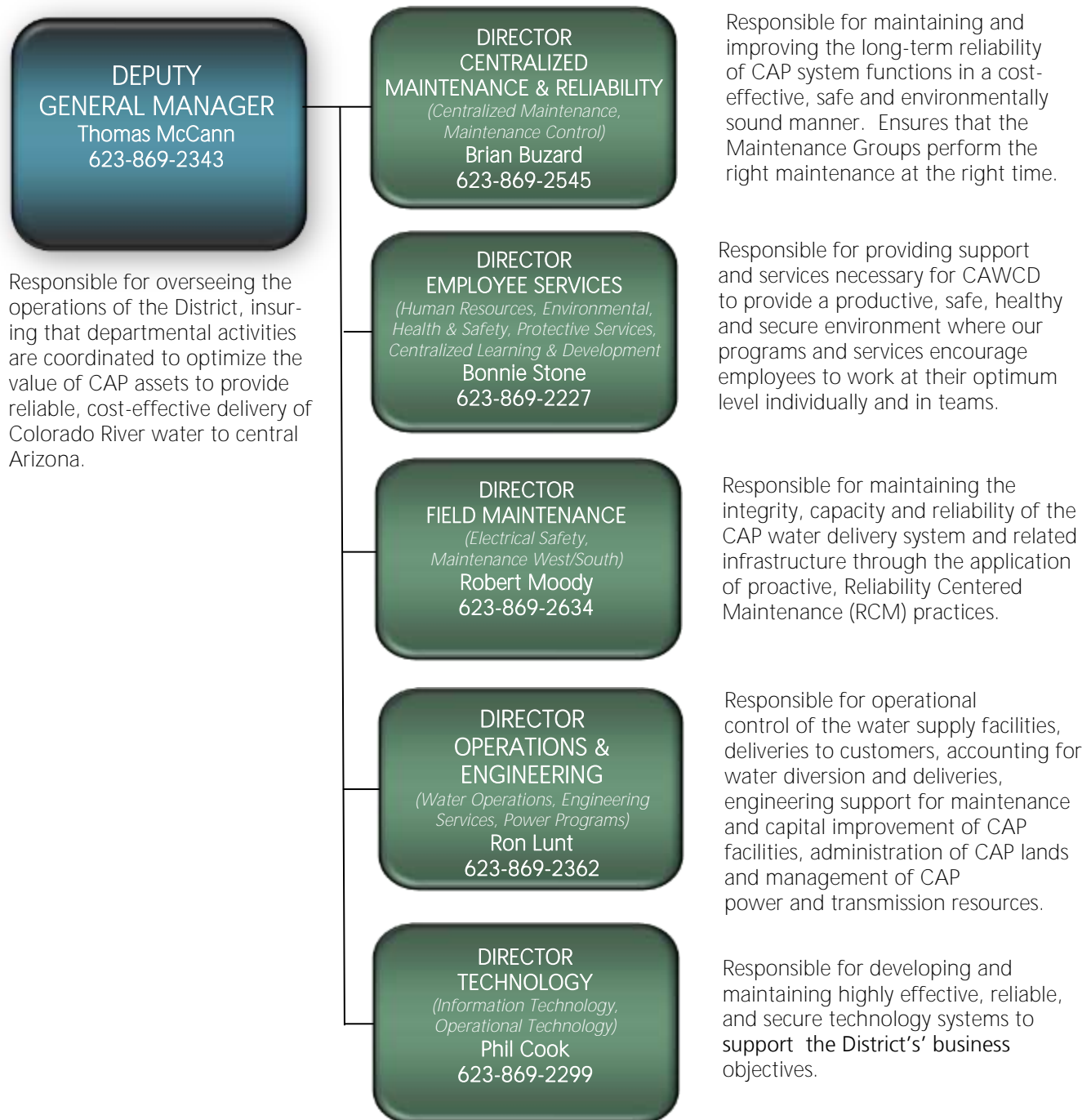
<i>(Dollars in Thousands)</i>	2015 Actuals	2016 Actuals	2017 Projected	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 351	\$ 294	\$ 371	\$ 391	\$ 403
Outside services	216	377	167	323	413
Materials & supplies	-	-	1	-	-
Other expenses	15	9	19	23	20
Total Operating Expenses	\$ 582	\$ 680	\$ 558	\$ 737	\$ 836

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 582	\$ 680	\$ 558	\$ 737	\$ 836
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 582	\$ 680	\$ 558	\$ 737	\$ 836
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 582	\$ 680	\$ 558	\$ 737	\$ 836
Staffing (FTE)	4.0	3.2	3.9	4.0	4.0



DEPUTY GENERAL MANAGER

Mission: The Deputy General Manager (GM) provides leadership and direction in managing the business of the Central Arizona Water Conservation District (CAWCD or District) and the operations of the Central Arizona Project (CAP).



DEPUTY GENERAL MANAGER

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Provide reliable and cost-effective water deliveries	Action Plan: Reliably deliver CAP water to satisfy all customer water orders with a measure and target of 100% of annual customer water orders delivered based on final end-of-year water orders.
		Accomplishment: All customer water delivery requests were met.
		Action Plan: Maintain high levels of operational reliability and eliminate unplanned outages with a total forced unit outage target of less than 2.75%
		Accomplishment: CAP's forced outage rate was 1.1% in 2016 and less than 1% in 2017.
Project Reliability	Maintain a safe and secure working environment	Action Plan: Reduce/eliminate workplace injuries and illnesses, achieving a Days Away, Restrictions and Transfers (DART) rate at or below 0.9. Accomplishment: CAP's DART rate was 0.7 in 2016, well below the Arizona and national averages for our industry and well below the strategic goal.
	Effectively manage, operate and maintain CAP assets	Action Plan: Expand predictive maintenance by increasing condition-based monitoring (CBM) and developing methods for tracking, sharing and evaluating CBM data, with a target of completing RCM analysis for six critical assets and acquiring and deploying an automated data collection system that collates CBM data and makes that information readily available to drive maintenance decisions. Accomplishment: Completed 6 full RCM implementations in 2016; completed an asset health inventory of all major systems ; deployed CBM technologies including vibration, ultrasonic, infrared and ROV/drones; acquired and deployed and automated data collection and integration system.
Water Supply	Reduce risk associated with CAP's junior priority	Action Plan: Manage Colorado River diversions and deliveries to fulfill CAP commitments under Memorandum of Understanding among lower basin water users and Reclamation with a measure and target of storing 345,000 acre-feet of Protections Volume in Lake Mead by the end of 2017. Accomplishment: CAP met its full commitment of storing 345,000 AF in Lake Mead by the end of 2016, one year ahead of the target date.

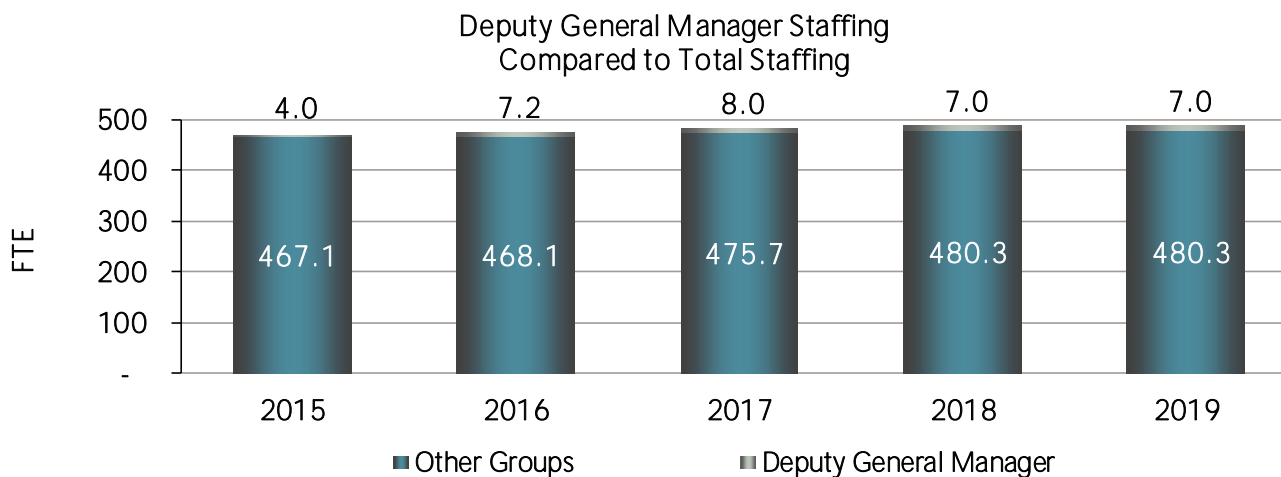
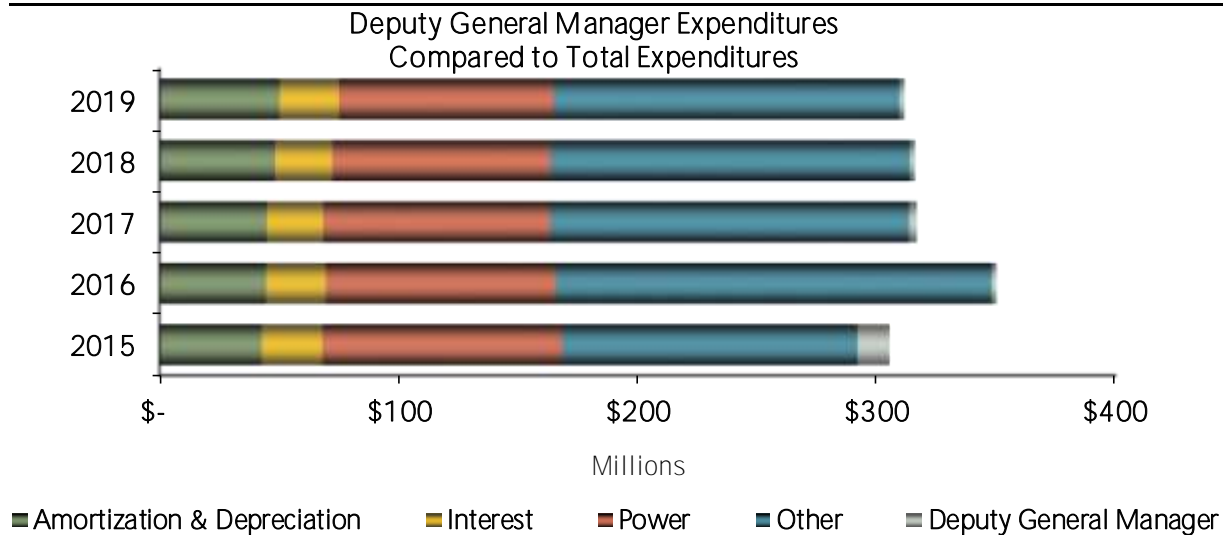
DEPUTY GENERAL MANAGER

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Project Reliability	Maintain a safe and secure working environment	<p>Action Plan: Maintain Voluntary Protection Program Star status with Arizona Division of Occupational Safety and Health.</p> <p>Expected Outcome: Successfully gain VPP recertification in 2019. Maintain Total Recordable Case (TRC) and Days Away, Restricted Transfer (DART) rates below the Arizona averages for the water and sewer utility industry.</p>
	Maintain effective information technology systems	<p>Action Plan: Continue to address aging infrastructure. Use Tactical and Strategic Asset Management teams, condition-based monitoring systems and reliability data integration technology to drive repair, rehabilitation and replacement decisions.</p> <p>Expected Outcome: Coordinated long-range plans for major maintenance, capital improvement and integrated technology life-cycle management.</p>
	Effectively manage, operate and maintain CAP assets	<p>Action Plan: Develop enterprise-wide asset management policy, strategy and plans that manage risk and insure environmental sustainability in accordance with CAP strategic objectives.</p> <p>Expected Outcome: All department activities are aligned to provide the required level of service to CAP customers at acceptable levels of risk and in the most cost-effective manner. All CAP assets—physical, financial, human, information, power and water—are managed in a coordinated program that balances financial, environmental and social aspects to achieve best value.</p>
Water Supply	Optimize reliability and sustainability of CAP water supply	<p>Action Plan: Provide reliable and cost effective water deliveries by reliably delivering CAP water to satisfy all customer water orders and manage Colorado River diversions to protect Lake Mead and promote the long-term reliability of CAP's Colorado River water supply.</p> <p>Expected Outcome: Meet all customer delivery requests while honoring approved forbearance agreements and contributing system conservation to Lake Mead in the line with the Drought Contingency Plan.</p>
Power	Secure reliable, sustainable cost-effective generation resources	<p>Action Plan: Develop and procure a portfolio of cost-effective power resources to replace NGS and meet CAP pump load requirements.</p> <p>Expected Outcome: Replacement power resources are secured in advance of NGS closure for operating CAP pumps starting in 2020.</p>

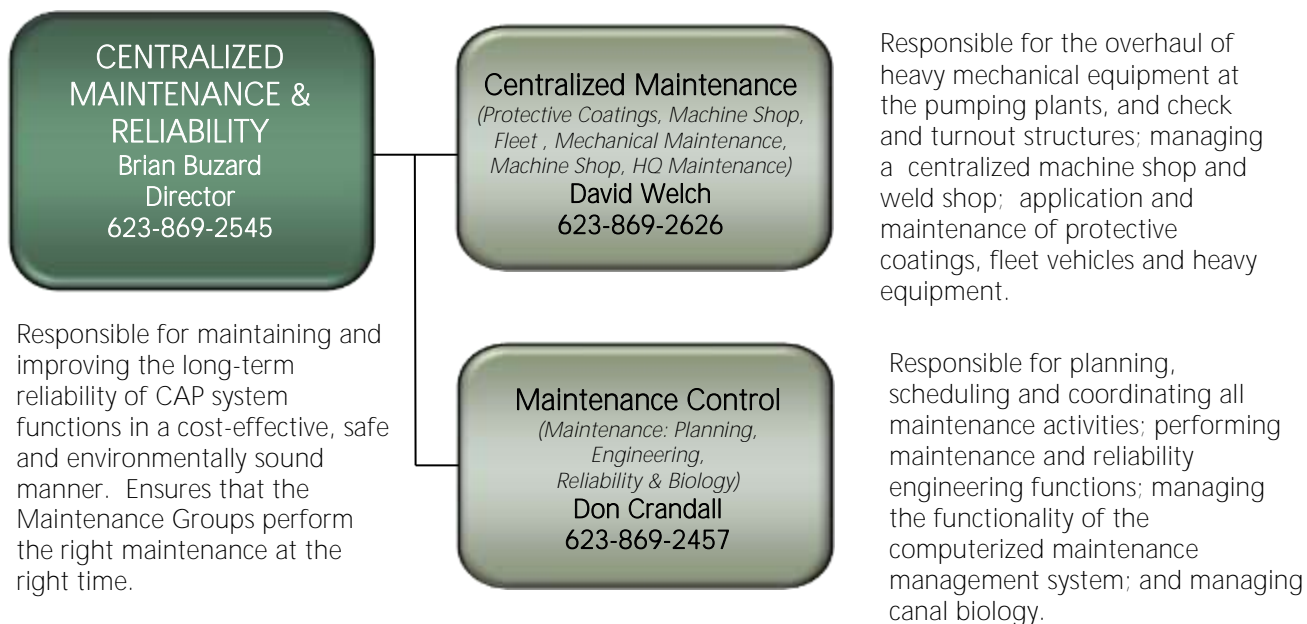
DEPUTY GENERAL MANAGER BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 526	\$ 1,045	\$ 1,190	\$ 1,123	\$ 1,156
Outside services	1,038	891	1,145	940	890
Materials & supplies	-	1	1	-	-
Other expenses	16	18	35	36	34
Total Operating Expenses	\$ 1,580	\$ 1,955	\$ 2,371	\$ 2,099	\$ 2,080
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,580	\$ 1,955	\$ 2,371	\$ 2,099	\$ 2,080
CAGR					
Other Funds and Accounts					
Total Operating Expenses	\$ 1,580	\$ 1,955	\$ 2,371	\$ 2,099	\$ 2,080
Capital Expenditures	11,780	-	813	-	-
Total Expenditures	\$ 13,360	\$ 1,955	\$ 3,184	\$ 2,099	\$ 2,080
Staffing (FTE)	4.0	7.2	8.0	7.0	7.0



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.



CENTRALIZED MAINTENANCE & RELIABILITY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Finance	Maintain coordinated financial strategies (budget, reporting, revenues, rates, expenditures, taxes, reserves)	<p>Action Plan: Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities. With a measure of a variance between budget and actual expenses: With a target managing actual expenses to no more than 2% over and no less than 5% under approved budget.</p> <p>Accomplishment: The CM&R Team had an actual budget variance of 1.14% in 2016 and less than 2% for 2017.</p>
	Provide reliable and cost-effective water deliveries	<p>Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. 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. With a measure and target of less than 2.75% total forced unit outage.</p> <p>Accomplishment: The realized forced outage rate for 2016 was 1.1%; For 2017 it was (0.13%).</p>
Project Reliability		<p>Action Plan: Increase two-way communication among managers, supervisors, maintenance engineers and crews to provide meaningful information to staff (e.g., key reports, necessity of work assignments, needs for asset modifications). With a measure and target of processing updated and reissue Maintenance Field Guide; target the maintenance employee training curriculum to be established and deployed prior to the end of 2016.</p> <p>Accomplishment: Update of maintenance processes, narratives, and RACI charts completed along with re-issue of the Maintenance Field Guide. Full development of a employee training curriculum completed in 2017.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Expand predictive maintenance in order to determine when equipment is in decline, by increasing condition-based monitoring instrumentation at CAP facilities (e.g., temperature, vibration at pumping plants). With a measure of an application of RCM process to critical assets. With a target of completing and implementing 6 RCM analyses prior to the end of 2017.</p> <p>Accomplishment: CAP completed 6 full RCM implementations in 2016. RCM studies reduced in 2017 to allow time for completing development of the Asset Health program.</p>

CENTRALIZED MAINTENANCE & RELIABILITY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Expand maintenance excellence to enterprise asset management	<p>Action Plan: Develop methods for tracking, sharing and evaluating information resulting from condition-based monitoring. With a measure of acquisition or development and deployment of an automated data collection system that retrieves information from condition-based monitoring devices and other sources and makes that information readily available to drive maintenance decisions. With a target of achievement of this goal with collective and coordinated efforts of Maintenance, IT and other groups.</p> <p>Accomplishment: Deployment of DMSI included completion of rules and diagnosis in 2016 and asset health scoring completed in 2017 .</p>
	Improve technology management	<p>Action Plan: Expand the mobile asset management system (i.e., preventive maintenance processes through the use of wireless hand-held devices). With a measure of implementation of mobile solutions to facilitate maintenance processes. With a target of two mobile solutions implemented per year with an achievement of this goal requiring the collective, coordinated efforts of maintenance, IT and other groups.</p> <p>Accomplishment: Mobile application developed and deployed for aqueduct inspections, and plant weekly walk-through at Salt Gila pumping plant.</p>
	Promote environmental sustainability	<p>Action Plan: Enhance CAP's environmental compliance program in all areas of environmental performance to achieve a high level of compliance and excellence. With a measure of continuing to reduce Opportunities to Correct, using a target of less than 3 OTC issued per month.</p> <p>Accomplishment: Achieved an average of 1.33 OTCs per month in 2016-2017.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Benchmark CAP's maintenance program against other similar utilities and industry best practices in terms of reliability engineering, asset condition management, work execution and leadership. With a measure of completion of assessment by outside expert with a target of complete assessment by end of 2016.</p> <p>Accomplishment: CAP completed the Asset Management Customer Value (AMCV) benchmark in Q1 of 2017.</p>

CENTRALIZED MAINTENANCE & RELIABILITY

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Finance	Maintain effective financial strategies	<p>Action Plan: Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities.</p> <p>Expected Outcome: With measure of variance between budget and actual expenses and a target managing actual expenses to no more than 2% over and no less than 5% under approved budget.</p>
	Provide reliable and cost effective water deliveries	<p>Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages.</p> <p>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. With a measurement and target of less than 2.00% total forced unit outage.</p>
Project Reliability		<p>Action Plan: Take ownership of tactical asset management teams (TAM) to drive defect elimination while fostering employee participation.</p> <p>Expected Outcome: 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. Ensure effective communication between the TAM/SAM teams. With a measurement and target of reduce average backlog age.</p>
	Continue to address aging infrastructure	<p>Action Plan: Lead Strategic Asset Management Teams.</p> <p>Expected Outcome: Through engagement and active participation, develop long range repair, rehab, and replacement plans. Develop consistent maintenance strategies across like asset classes. Ensure effective communication between the TAM/SAM teams. With a measurement of Developing and implementing processes, narratives, and RACI diagrams for the SAM/TAM teams.</p>
		<p>Action Plan: Continue to mature our condition assessment capabilities for use on additional critical assets.</p> <p>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. With a measurement of baseline plan developed for critical assets.</p>

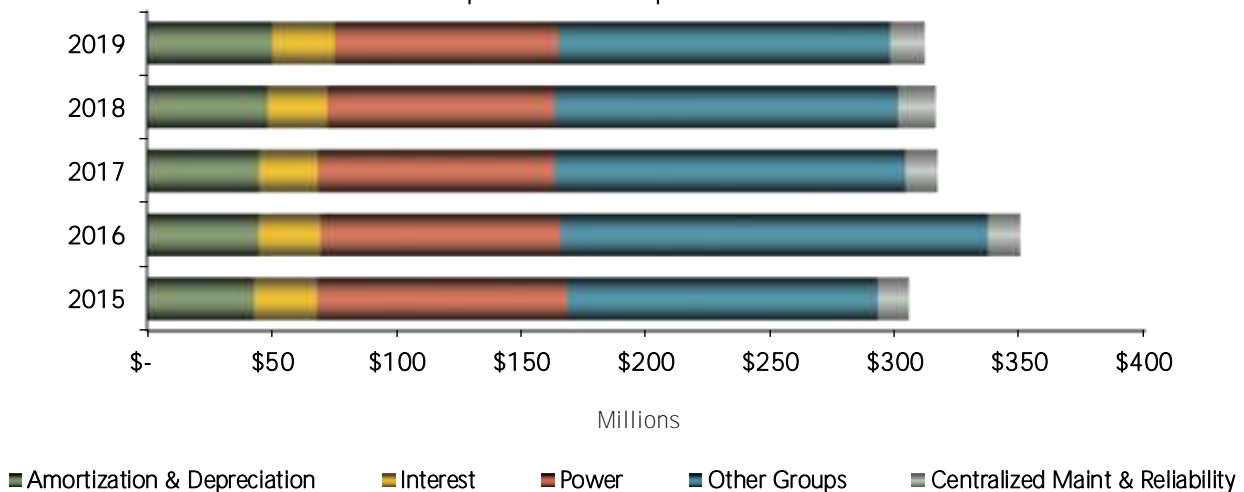
CENTRALIZED MAINTENANCE & RELIABILITY BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Project Reliability	Continue to address aging infrastructure	<p>Action Plan: Develop process to support strategic asset management team.</p> <p>Expected Outcome: CM staff participate/provide input to SAM meeting. Support the execution of the long-range maintenance plan through planning and resource sharing. With a measurement and target of outage Schedule Performance ≥ 85.</p>
		<p>Action Plan: Design For Reliability</p> <p>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. With a measurement of developing and utilizing reliability and maintainability checklist during design.</p>
	Achieve industry best maintenance practices	<p>Action Plan: Continue to participate in external reviews and assessments of CAP maintenance practices.</p> <p>Expected Outcome: Complete a maintenance process assessment, with a measure of completing before Q4 2018.</p>
		<p>Action Plan: Assess CAP's maintenance practices against established internal processes utilizing proactive asset management protocols.</p> <p>Expected Outcome: Using CAP internal auditor, complete a maintenance process assessment. With a measure of completing before Q4 2018.</p>

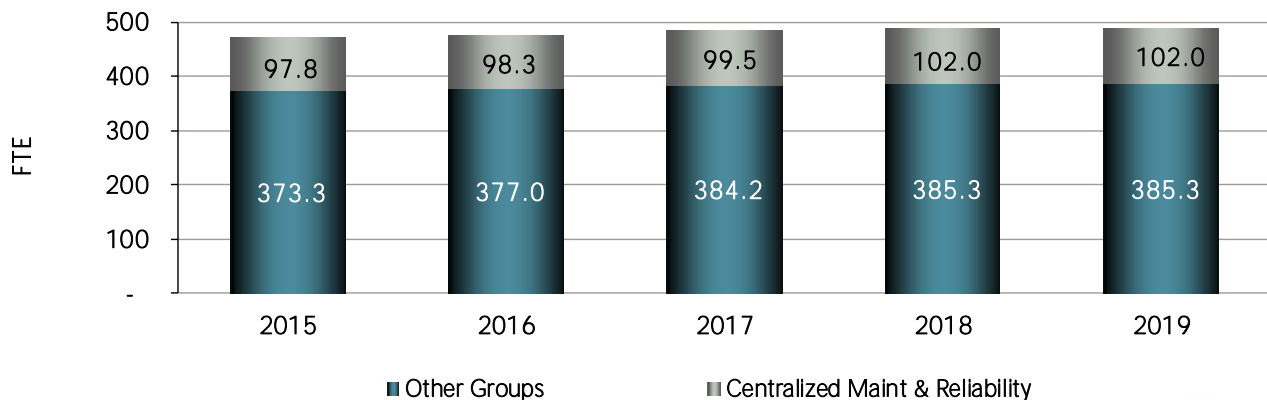
CENTRALIZED MAINTENANCE & RELIABILITY BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 8,218	\$ 8,499	\$ 8,608	\$ 9,062	\$ 9,413
Transmission	-	-	-	-	-
Outside services	469	461	426	427	378
Materials & supplies	1,335	1,411	1,619	1,657	1,646
Other expenses	892	890	851	813	773
Total Operating Expenses	\$ 10,914	\$ 11,261	\$ 11,504	\$ 11,959	\$ 12,210
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 10,914	\$ 11,261	\$ 11,504	\$ 11,959	\$ 12,210
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 10,914	\$ 11,261	\$ 11,504	\$ 11,959	\$ 12,210
Capital Expenditures	1,588	1,851	1,424	3,164	1,739
Total Expenditures	\$ 12,502	\$ 13,112	\$ 12,928	\$ 15,123	\$ 13,949
Staffing (FTE)	97.8	98.3	99.5	102.0	102.0

Centralized Maint & Reliability Expenditures
Compared to Total Expenditures



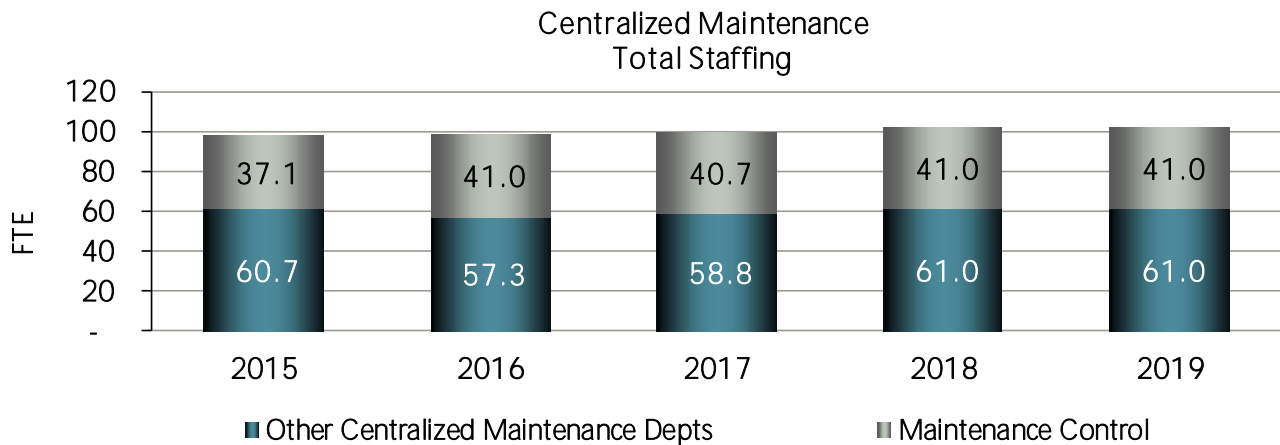
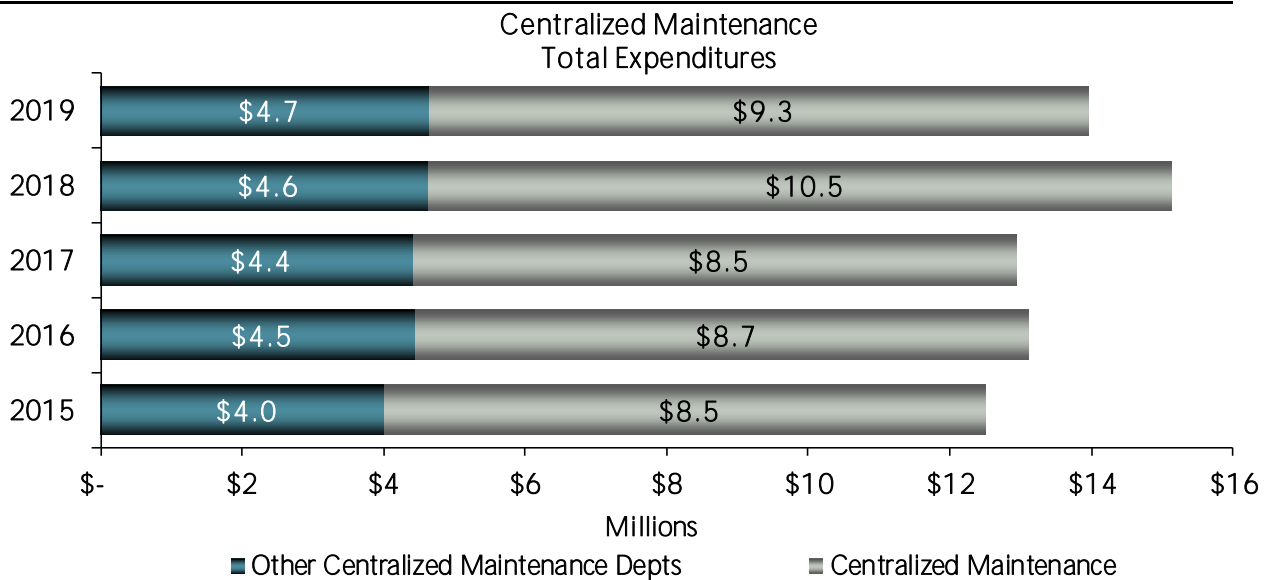
Centralized Maint & Reliability Staffing
Compared to Total Staffing



CENTRALIZED MAINTENANCE & RELIABILITY

CENTRALIZED MAINTENANCE

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 4,888	\$ 4,730	\$ 4,830	\$ 5,134	\$ 5,326
Outside services	293	243	235	279	249
Materials & supplies	1,248	1,331	1,509	1,558	1,554
Other expenses	636	639	632	550	532
Total Operating Expenses	\$ 7,065	\$ 6,943	\$ 7,206	\$ 7,521	\$ 7,661
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 7,065	\$ 6,943	\$ 7,206	\$ 7,521	\$ 7,661
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 7,065	\$ 6,943	\$ 7,206	\$ 7,521	\$ 7,661
Capital Expenditures	1,417	1,715	1,296	2,969	1,632
Total Expenditures	\$ 8,482	\$ 8,658	\$ 8,502	\$ 10,490	\$ 9,293
Staffing (FTE)	37.1	41.0	40.7	41.0	41.0



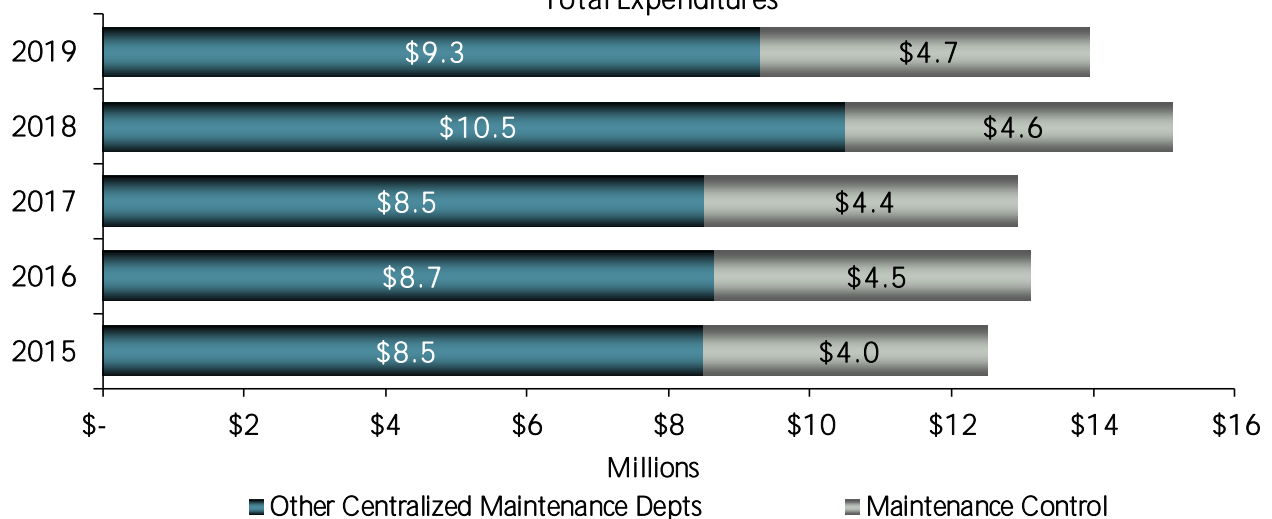
CENTRALIZED MAINTENANCE & RELIABILITY MAINTENANCE CONTROL

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 3,330	\$ 3,769	\$ 3,778	\$ 3,928	\$ 4,087
Outside services	176	218	191	148	129
Materials & supplies	87	80	110	99	92
Other expenses	256	251	219	263	241
Total Operating Expenses	\$ 3,849	\$ 4,318	\$ 4,298	\$ 4,438	\$ 4,549

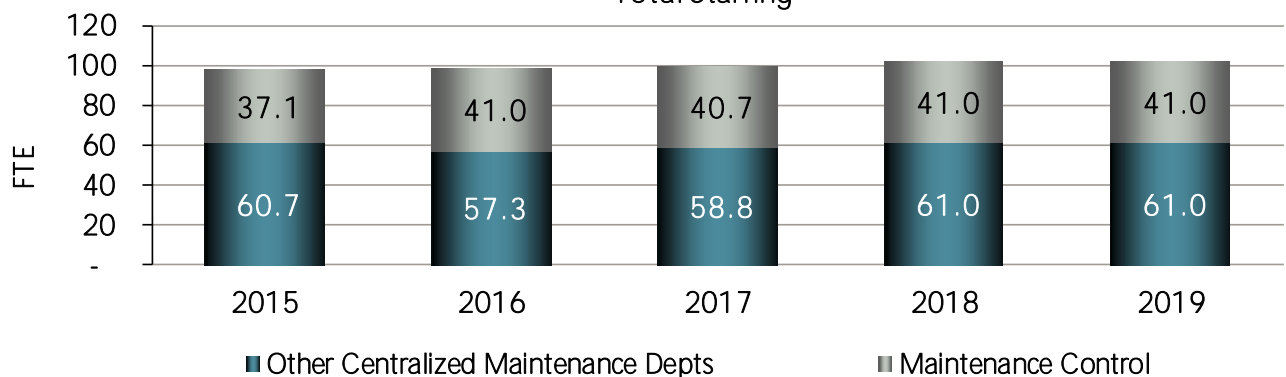
Expenditures by Fund

Operating Expenses					
General Fund	\$ 3,849	\$ 4,318	\$ 4,298	\$ 4,438	\$ 4,549
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 3,849	\$ 4,318	\$ 4,298	\$ 4,438	\$ 4,549
Capital Expenditures	171	136	128	195	107
Total Expenditures	\$ 4,020	\$ 4,454	\$ 4,426	\$ 4,633	\$ 4,656
Staffing (FTE)	60.7	57.3	58.8	61.0	61.0

Centralized Maintenance
Total Expenditures

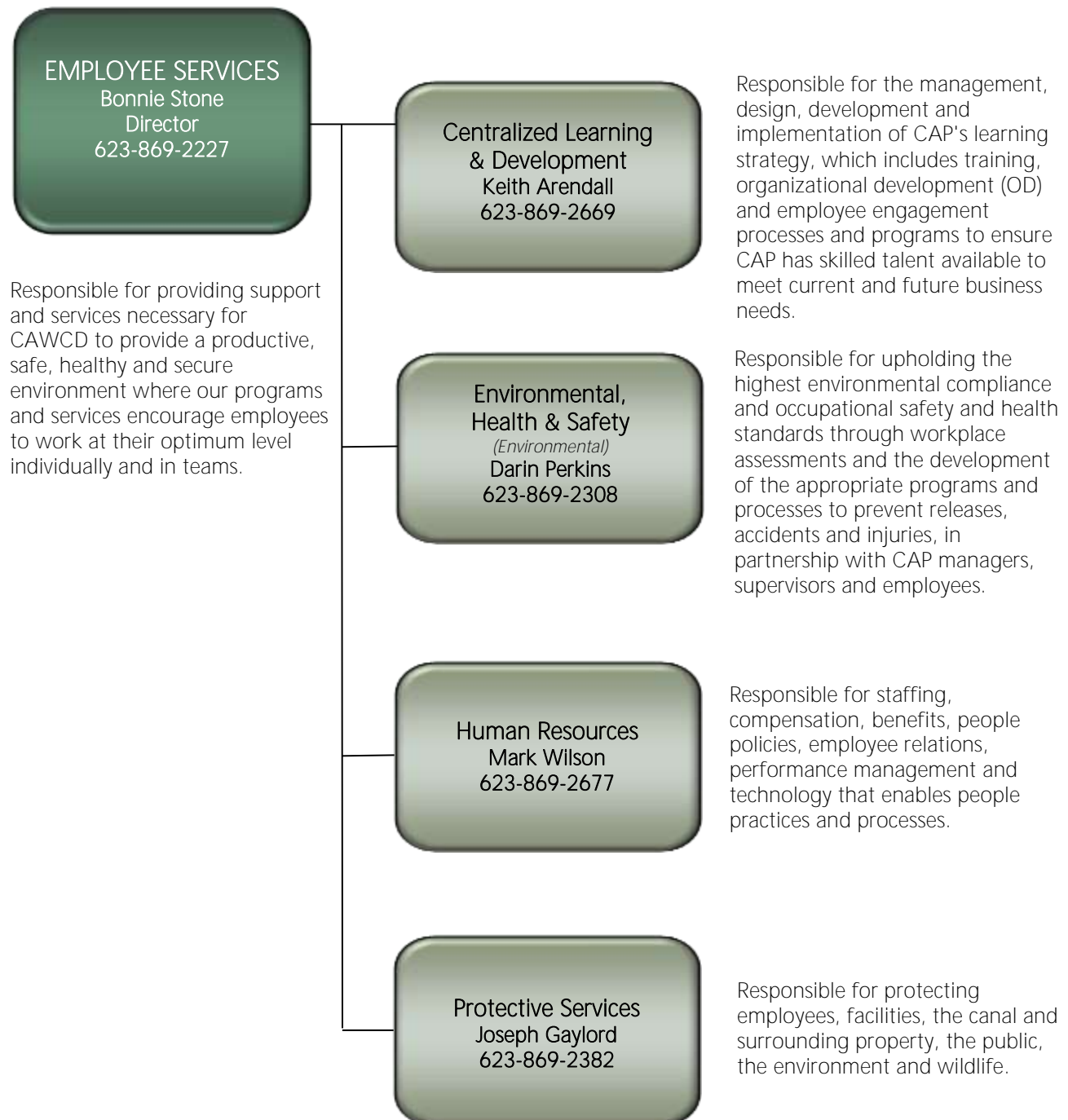


Centralized Maintenance
Total Staffing



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.



EMPLOYEE SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
		<p>Action Plan: Reduce/eliminate workplace ergonomic injuries. With the measure and target of having the 2016 / 2017 goal to be at or below the average rate of injuries for the previous three years .</p> <p>Accomplishment: In 2016, CAP had one injury that would be considered an ergonomic injury. Our average for the previous three years was one ergonomic injury per year. Our ergonomic team does a great job of responding to potential concerns from employees and providing the necessary help to ensure employees avoid these types of injuries. They also do a great job of visiting field work to try and identify areas where the field employees might make adjustments to their work positions or work operations to help avoid these types of injuries.</p>
		<p>Action Plan: Reduce/eliminate workplace injuries and illnesses. Ensure a “Days Away, Restrictions and Transfers” (DART) rate at or below 0.9. With the measure and target of having actual DART rate, quarterly and annual.</p> <p>Accomplishment: In 2016, CAP’s DART rate was 0.7, well below the Arizona and national averages for our industry, and well below the strategic goal. The DART rate was calculated and provided to CAP managers and supervisors on a quarterly basis.</p>
Project Reliability	Managing our workforce.	<p>Action Plan: Promote healthy habits in the workforce. Enhance the wellness program to focus on multiple health-related factors. With the measure and target of maintaining the current three wellness program initiatives and roll out a fourth program. Additionally, increase participation in all programs.</p> <p>Accomplishment: All Wellness program initiatives have been well attended/received. A fourth initiative was added during 2016, with the “No Added Sugar” challenge. Additional new opportunities were provided to employees to help improve their health via sleep studies, skin cancer screening and fitness screenings. Overall, approximately 80% of employees participate in one or more wellness offerings during the year.</p> <p>Action Plan: Expand Wellness programs and services, including coaching and incentives, to insured dependents to promote life-long behavior change among employees and their families. With the measure and target with providing services to dependents of ten or more insured employees.</p> <p>Accomplishment: There is still much to be discussed/done to meet this action plan. This will be something that requires continued discussions and approval by management prior to making this option available to employee spouses and families.</p>

EMPLOYEE SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
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Managing our workforce.

Action Plan: Further reduce Preventable Vehicle Accidents (PVA) to below the average for the most recent three years. With the measure and target of number of PVAs.

Accomplishment: In 2016, we had a strategic goal to have no more than 8 preventable vehicle accidents. As of year's end, we had 8, meeting this goal.

Project Reliability

Promote Environmental Sustainability

Action Plan: Enhance the environmental program to achieve a high level of regulatory and policy compliance. With the measure and target of achieving a 10% decrease in the number of Opportunities to Correct (OTC) from the previous year. Resolve 100% of any recurring OTCs.

Accomplishment: In 2014 the Environmental department issued 55 opportunities to correct (OTC's) of which 44 were based on a regulatory compliance issue. In 2015 there were a total of 41 OTC's issued, 27 were based on a compliance issue. In 2016 there were 16 OTC's issued with 14 of them being based on a compliance issue. Through this three year period CAP has seen a decline in OTC's by 25% between '14 and '15 and 51% between '15 and '16. Resolution of 100% of any recurring OTC's has been a challenge to say the least. During 2017 the Environmental department continued working diligently to minimize those repeating issues. We have made a significant dent as is proven by the significant decrease in total OTC's.

Action Plan: Continued improvement in existing waste reduction, management and diversion programs. With a measure and target of achieving a 10% increase in the volume of materials recycled or reused from previous year.

Accomplishment: During 2016 the Environmental Department began diverting the bulk of our recyclable and reusable material to 3 different charity based locations; STRUT, Students Reusing Technology gets the vast majority of all of our computer based equipment as well as electronic recyclables to sell with the profits being diverted directly back into their mission. STRUT uses only R2/RIOS certified vendors. Treasures for Teachers receives the bulk of all useable office and other material useful in Arizona classrooms. The Heard museum is the third charity receiving CAP material, they are given any packing material that would otherwise be destined for the landfill. Finally CAP does recycle all batteries, wood, tires, metal and other material wherever possible. During 2017 we developed plans for inclusion in the '18/'19 budget to acquire the tools necessary to better define how much material goes to the various disposal methods.

EMPLOYEE SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Develop a robust supervisory/management training program	<p>Action Plan: Provide development for employees in succession planning for supervisory positions and skills enhancement for existing supervisors through CAP's Supervisor Academy. With the measure and target of successfully participant completion of Academy and Leadership Development Program continuation.</p> <p>Accomplishment: The Supervisor Academy started its third cohort in April 2017. There have been twenty-two graduates from the Academy; seven in 2016 and fifteen in 2017. In addition the Leadership Development Program transitioned to S.T.E.P, Strategic Talent Enablement Process. There are five levels in STEP: (1) Employee Development; (2) Supervisor Academy; (3) Manager University; (4) Leadership Institute and (5) Executive Development.</p>
		<p>Action Plan: Continue use of Personal and Organizational Development Process (POD) at CAP. With a measure and target of developing 2 e-learning courses and use POD competencies as basis for employee development courses.</p> <p>Accomplishment: POD has been incorporated into all CLD programs Five e-learning modules have been developed and are in the CAP Learning Center: (1) POD Teach to Learn; (2) POD Personal Character; (3) POD; (4) Leadership; (5) POD The Business of CAP; (6) POD Technical Functional Skills.</p>
		<p>Action Plan: Develop process and standards for all training/development at CAP. With a measure and target of completing training evaluation at CAP, including off-site training, and development and rollout of Job Training Standards for all Apprentice trades</p> <p>Accomplishment: For Internal training/development a process and workflow have been created and is available in Content Server– Training Locator Form and the Training Planner Form. Also, all CLD members completed the Kirkpatrick Four Levels Bronze Certification Program. Evaluations are being utilized following the Kirkpatrick model for internal offerings. In addition, the Learning Request Process has a workflow that includes an evaluation component for off-site training. Job Training Standards for Electrical, Mechanical, Industrial Coaters and HVAC have been completed. Standards for the trades of Machinist, Heavy Equipment Operator, and Universal Operator are still in development.</p>

EMPLOYEE SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
	Protect the canal system from encroachment, trespassing, spread of crime and illegal dumping	<p>Action Plan: To make sure the canal is as safe as possible with continual patrolling on ground and air. With a measure of flights conducted by Maricopa County Sheriff's Office (MCSO) and agents, incident reports conducted by agents. With a target of at least 120 hours of security flights along the canal and complete 300 incident reports.</p> <p>Accomplishment: During the year of 2016 we had a total of 143 hours of flight time patrolling the CAP canal system. The canal is slit into thirds for flights, the far west, central and south flights. This allowed the agents responsible for those areas to conduct the flights with MCSO. In 2017 we achieved 150 hours of flight time while patrolling the canal. The agents also completed 356 incident reports. The majority of incident reports are in the nature of cut fences they find while patrolling the canal. The second highest would be trash and graffiti. But all incidents being from very minor to high profile are documented in the report writing system within the protective services department. Every report is read by the manager and if the report needs to be forwarded for action that is done while the report is approved. Such things as damaged fences were reported to the maintenance crew responsible for that section of the canal for repair. Any criminal cases were turned over to the local police department, but we conducted our investigation as well.</p>
Project Reliability	Establish CAP as the regional "Employer of Choice"	<p>Action Plan: Maintain a competitive pay and benefits package. With a measure and target of reviewing benefits program annually and conduct external salary surveys on a two-year rotation.</p> <p>Accomplishment: Successfully executed CAP Benefits valuation process. CAP's Benefits Program was compared to seven organizations, public and private. CAP's overall benefits program was rated first place.</p>
	Maintain high levels of skills and job proficiency among employees	<p>Action Plan: Conduct salary surveys that compare CAP to similar organizations and that reflect the breadth and range of skill sets within CAP positions. With a measure and target of reviewing salary survey data and compare it to previous years and review data against internal and external jobs.</p> <p>Accomplishment: We started the process of reviewing all CAP job titles against published and custom data. We have enlisted the services of a consultants to do a comprehensive and independent review of all survey data gathered along with a comparison of best practices across spectrum of organizations surveyed. The internal auditor completed a comprehensive review of CAP employee benefits program in 2016. The audit revealed that CAP's benefits program meets all established requirements and provides more than adequate coverages for its employee population. The benefits processes are transparent and all contracted vendors are providing the necessary services to CAP with all appropriate controls in place.</p>

EMPLOYEE SERVICES

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
		<p>Action Plan: Increase employee and management self-service within five years. Implement new employee performance management system, improve talent engagement capabilities, and improve benefits administration. With measure and target of reviewing performance management system annually for improvements, have internal work groups evaluate recruiting practices, and have internal auditors conduct audits of benefits administration.</p>
Project Reliability	Maintain high levels of skills and job proficiency among employees	<p>Accomplishment: We have implemented a more comprehensive employee performance management evaluation tool that allows for greater employee input and evaluator review. The new tool also drives the process of employee and evaluator conversations. This process is interactive and rewarding for all involved. The employee performance management process was also restructured to provide evaluation of performance and possible merit increases by year end. We have partnered with various members of the organization to review the CAP recruitment process. For 2016 the process added several revisions to assist in expediting the administrative process associated with talent engagement. We have also restructured the assets that handle talent engagement so now there are dedicated assets to the major areas of internal and external engagement.</p>

EMPLOYEE SERVICES

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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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.

Expected Outcome: Successfully acquiring 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).

Action Plan: Continue to foster CAP's culture of safety, including meeting established safety metrics.

Expected Outcome: Ninety percent of required safety and health training completed annually and increase employees participating in the monthly safety matrix questionnaire.

Project Reliability

Action Plan: Maintain competitive pay and benefits.

Expected Outcome: Continue to review salary information and conduct biennial compensation surveys. In addition, proactively partner with consultant and third party administrators to ensure best discounts and pricing strategies for Medical, Mental Health and Prescription Medication.

Maintain CAP as an excellent employer

Action Plan: Continue to provide training and career opportunities to retain employees.

Expected Outcome: Develop a Survey tool to measure employees motivation to stay at CAP and establish a talent management philosophy to retain employees.

Action Plan: Promote diversity & inclusion in the work force.

Expected Outcome: The mission/vision statement has been updated, if necessary and communication of the Organization Diversity and Inclusion mission/vision statement.

EMPLOYEE SERVICES

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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Action Plan: Maintain an effective apprenticeship program and journeyman level development.

Expected Outcome: Establish a baseline for journeyman competencies for each trade, determine the process for a skill assessment and perform a baseline skill assessment.

Action Plan: Manage an effective pay for performance system.

Expected Outcome: Based on benchmark data make changes to pay practices as needed.

Project Reliability

Maintain high levels of skills and job proficiency among employees

Action Plan: Investigate incentives that promote employee job improvement and success.

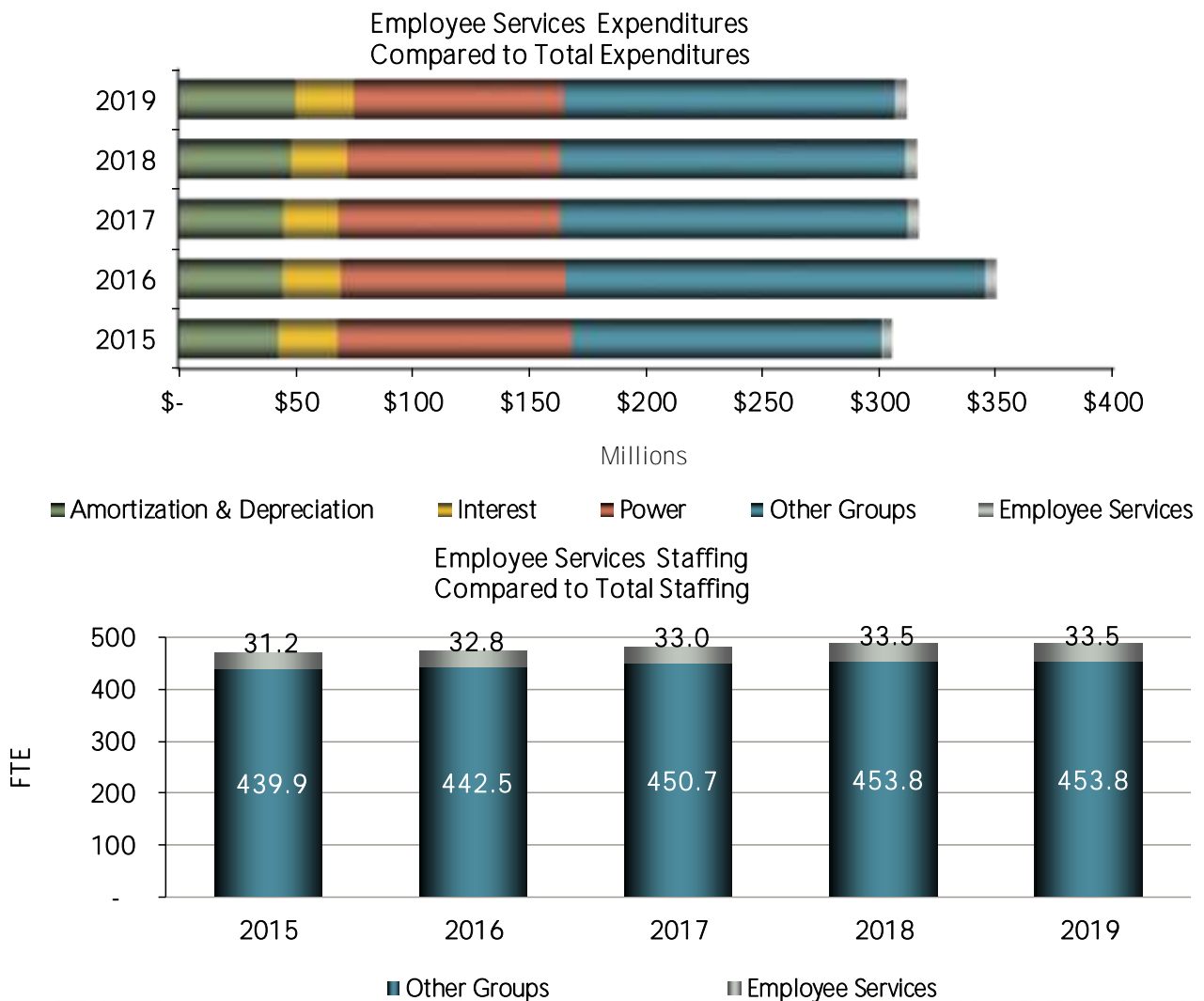
Expected Outcome: Survey industries as to the types of incentives that promote success.

Action Plan: Provide employee development processes and programs to improve job performance and capabilities.

Expected Outcome: 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.

EMPLOYEE SERVICES BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 2,339	\$ 2,503	\$ 2,546	\$ 2,658	\$ 2,737
Outside services	1,563	1,709	1,672	1,566	1,628
Materials & supplies	126	124	150	154	147
Other expenses	277	493	518	722	663
Total Operating Expenses	\$ 4,305	\$ 4,829	\$ 4,886	\$ 5,100	\$ 5,175
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,305	\$ 4,829	\$ 4,886	\$ 5,100	\$ 5,175
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 4,305	\$ 4,829	\$ 4,886	\$ 5,100	\$ 5,175
Capital Expenditures	-	57.0	-	-	-
Total Expenditures	\$ 4,305	\$ 4,886	\$ 4,886	\$ 5,100	\$ 5,175
Staffing (FTE)	31.2	32.8	33.0	33.5	33.5



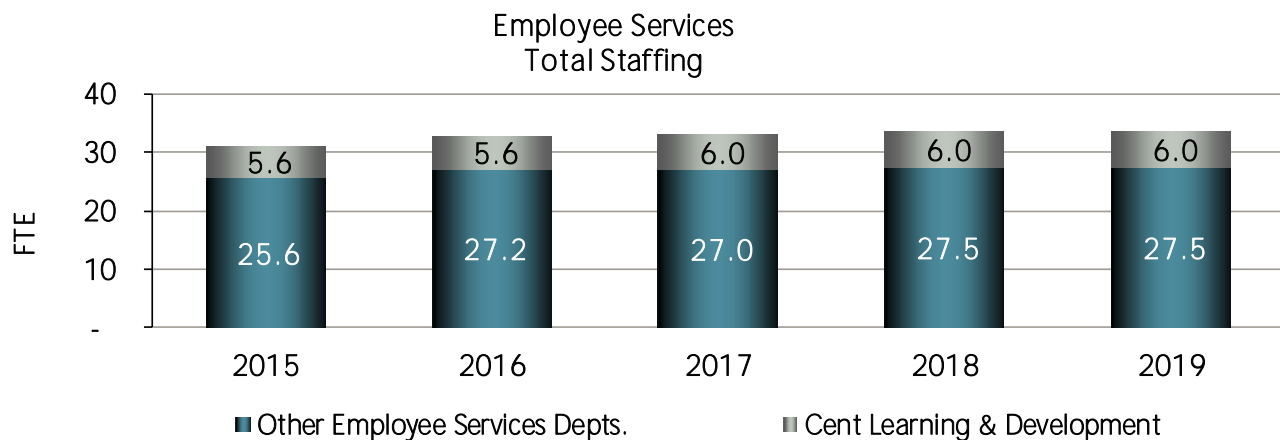
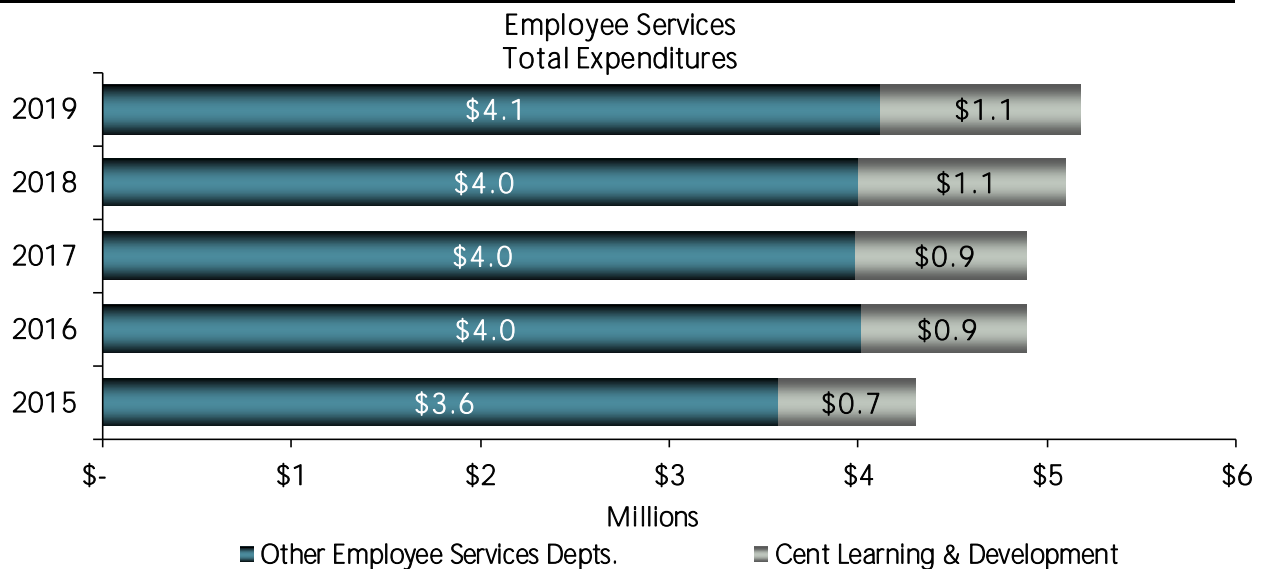
EMPLOYEE SERVICES

CENTRALIZED LEARNING & DEVELOPMENT

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 426	\$ 436	\$ 466	\$ 482	\$ 497
Outside services	160	46	96	47	47
Materials & supplies	2	5	2	21	22
Other expenses	135	327	336	549	487
Total Operating Expenses	\$ 723	\$ 814	\$ 900	\$ 1,099	\$ 1,053

Expenditures by Fund

Operating Expenses					
General Fund	\$ 723	\$ 814	\$ 900	\$ 1,099	\$ 1,053
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 723	\$ 814	\$ 900	\$ 1,099	\$ 1,053
Capital Expenditures	-	57	-	-	-
Total Expenditures	\$ 723	\$ 871	\$ 900	\$ 1,099	\$ 1,053
Staffing (FTE)	5.6	5.6	6.0	6.0	6.0



EMPLOYEE SERVICES

ENVIRONMENTAL, HEALTH & SAFETY

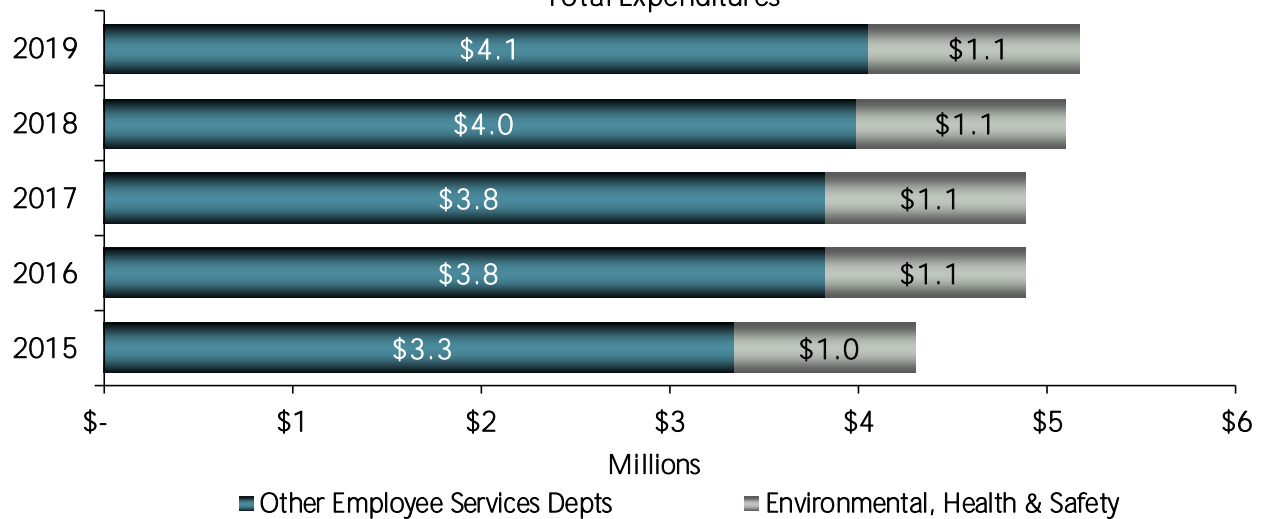
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 767	\$ 837	\$ 829	\$ 857	\$ 883
Outside services	51	50	61	85	74
Materials & supplies	51	58	51	62	54
Other expenses	95	113	115	109	111
Total Operating Expenses	\$ 964	\$ 1,058	\$ 1,056	\$ 1,113	\$ 1,122

Expenditures by Fund

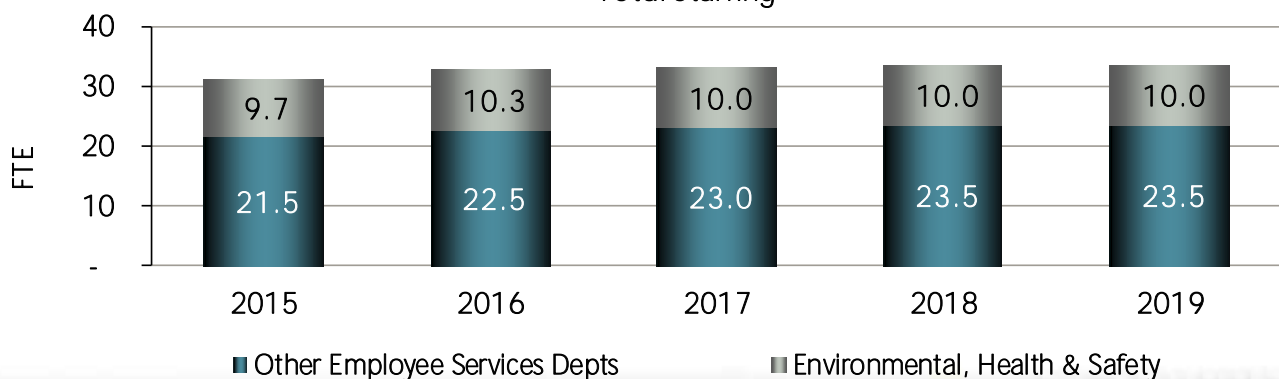
Operating Expenses

General Fund	\$ 964	\$ 1,058	\$ 1,056	\$ 1,113	\$ 1,122
CAGR Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	\$ 964	\$ 1,058	\$ 1,056	\$ 1,113	\$ 1,122
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 964	\$ 1,058	\$ 1,056	\$ 1,113	\$ 1,122
Staffing (FTE)	9.7	10.3	10.0	10.0	10.0

Employee Services Group
Total Expenditures

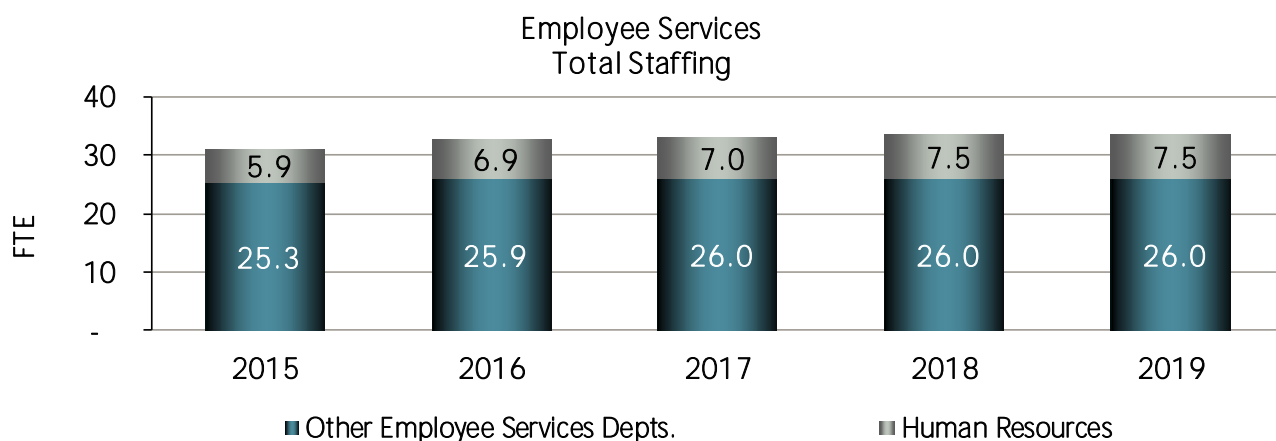
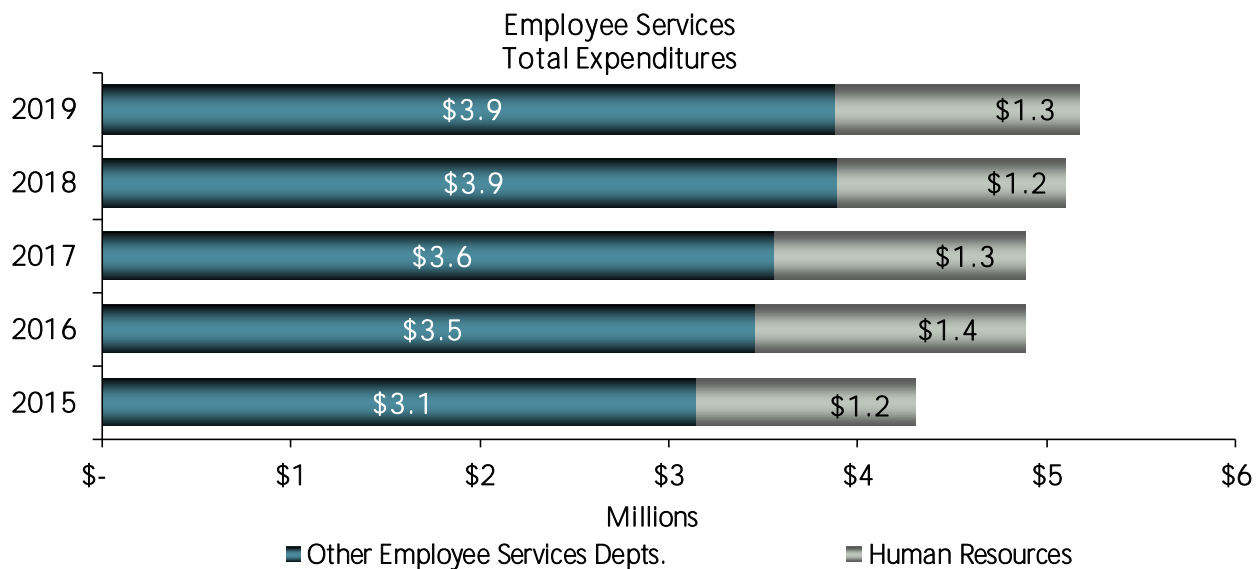


Employee Services Group
Total Staffing



EMPLOYEE SERVICES HUMAN RESOURCES

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 462	\$ 524	\$ 523	\$ 569	\$ 585
Outside services	657	851	740	584	657
Materials & supplies	3	3	4	3	3
Other expenses	38	45	56	49	50
Total Operating Expenses	\$ 1,160	\$ 1,423	\$ 1,323	\$ 1,205	\$ 1,295
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,160	\$ 1,423	\$ 1,323	\$ 1,205	\$ 1,295
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 1,160	\$ 1,423	\$ 1,323	\$ 1,205	\$ 1,295
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,160	\$ 1,423	\$ 1,323	\$ 1,205	\$ 1,295
Staffing (FTE)	5.9	6.9	7.0	7.5	7.5



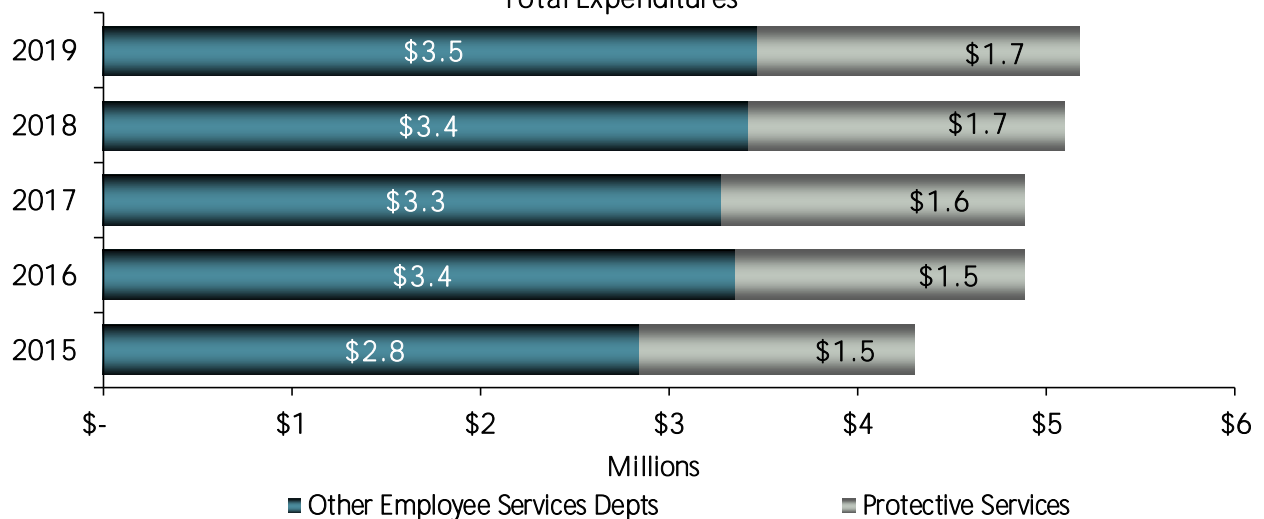
EMPLOYEE SERVICES PROTECTIVE SERVICES

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 684	\$ 706	\$ 728	\$ 750	\$ 772
Outside services	695	762	775	850	850
Materials & supplies	70	58	93	68	68
Other expenses	9	8	11	15	15
Total Operating Expenses	\$ 1,458	\$ 1,534	\$ 1,607	\$ 1,683	\$ 1,705

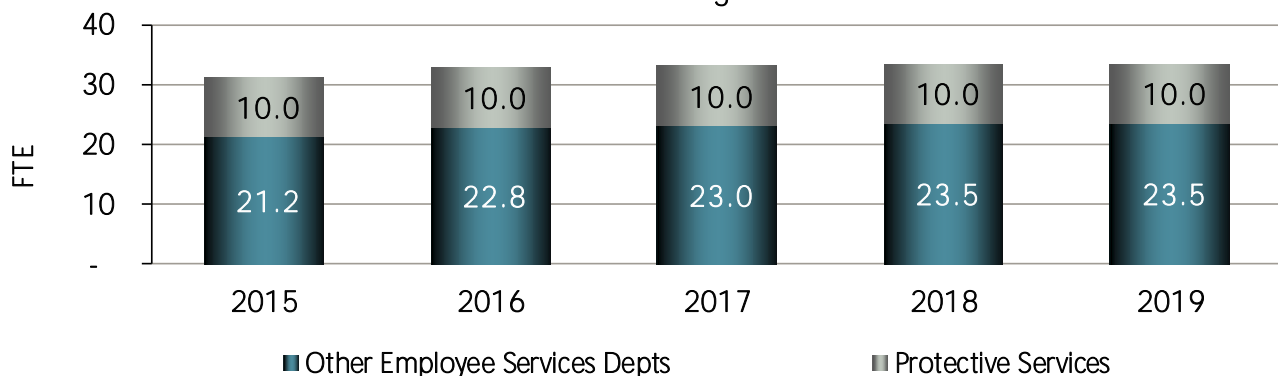
Expenditures by Fund

Operating Expenses					
General Fund	\$ 1,458	\$ 1,534	\$ 1,607	\$ 1,683	\$ 1,705
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 1,458	\$ 1,534	\$ 1,607	\$ 1,683	\$ 1,705
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,458	\$ 1,534	\$ 1,607	\$ 1,683	\$ 1,705
Staffing (FTE)	10.0	10.0	10.0	10.0	10.0

Employee Services Total Expenditures



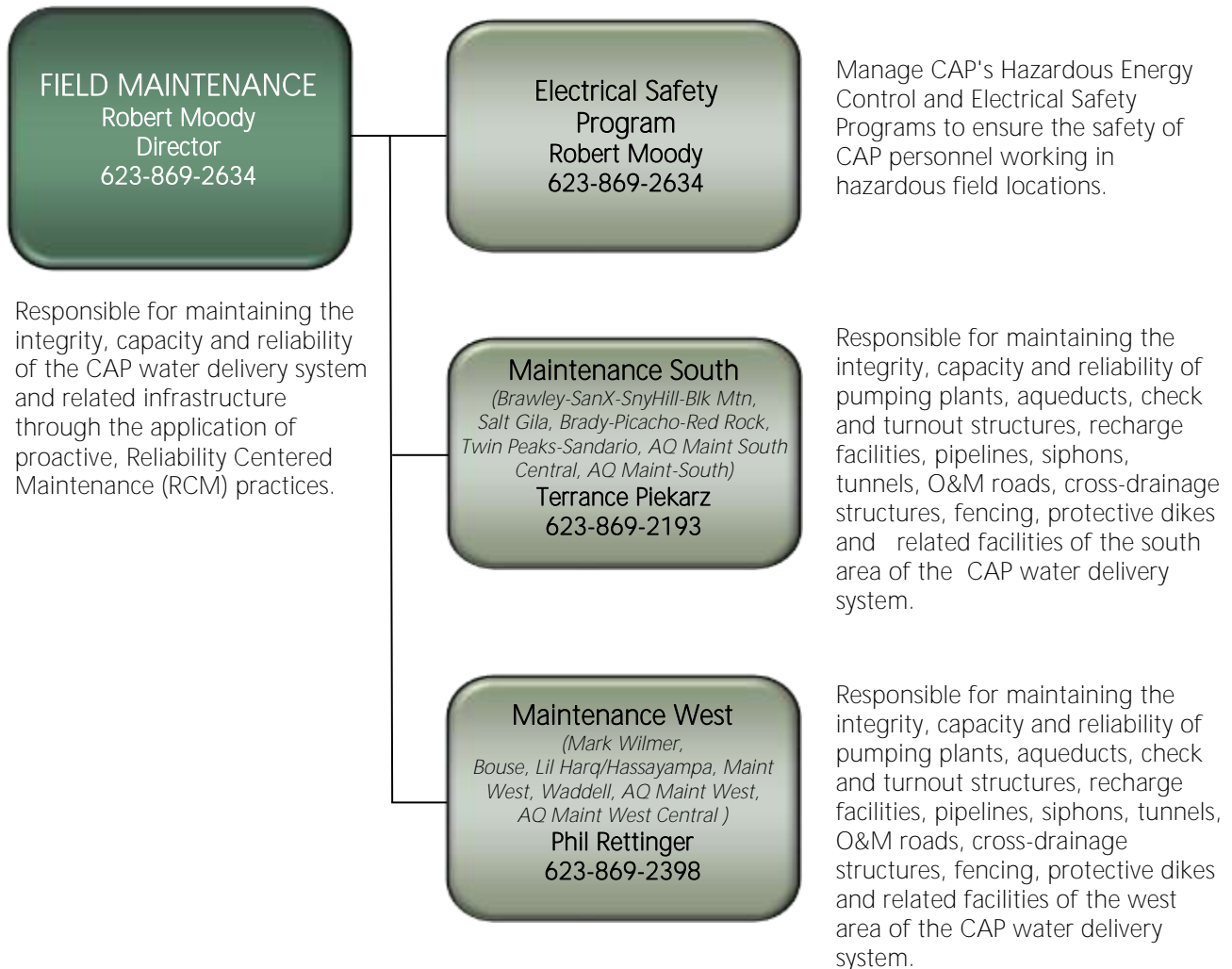
Employee Services Total Staffing





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.



FIELD MAINTENANCE

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Finance	Maintain coordinated financial strategies (budget, reporting, revenues, rates, expenditures, taxes, reserves)	<p>Action Plan: Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities. With measure of measuring variance between budget and actual expenses: Target managing actual expenses to no more than 2% over and no less than 5% under approved budget.</p> <p>Accomplishment: The Field Maintenance Team had an actual budget variance of 0.17% (not including power transmission) in 2016 and we anticipate a variance of 1% in 2017.</p>
	Provide reliable and cost-effective water deliveries	<p>Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. 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. With a measure and target of using target of less than 2.75% total forced unit outage.</p> <p>Accomplishment: The realized forced outage rate for 2016 was 1.1%; As of Q1 of 2017 we are at 0.13% Forced Outage Rate.</p>
Project Reliability		<p>Action Plan: Increase two-way communication among managers, supervisors, maintenance engineers and crews to provide meaningful information to staff (e.g., key reports, necessity of work assignments, needs for asset modifications). With a measure of processing updated and reissue Maintenance Field Guide. With a target the maintenance employee training curriculum to be established and deployed prior to the end of 2016.</p> <p>Accomplishment: Update of maintenance processes, narratives, and RACI charts completed along with re-issue of the Maintenance Field Guide. Full development of an employee training curriculum remains an opportunity in 2017.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Expand predictive maintenance in order to determine when equipment is in decline, by increasing condition-based monitoring instrumentation at CAP facilities (e.g., temperature, vibration at pumping plants). With a measure of application of RCM process to critical assets. With a target of completing and implementing 6 RCM analyses prior to the end of 2017.</p> <p>Accomplishment: CAP completed 6 full RCM implementations in 2016. Completed development of the Asset Health program, and have deployed CBM technologies such as: UT, IR, ROV/Drone inspections.</p>

FIELD MAINTENANCE

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Develop methods for tracking, sharing and evaluating information resulting from condition-based monitoring. With a measure of acquisition or development and deployment of an automated data collection system that retrieves information from condition-based monitoring devices and other sources and makes that information readily available to drive maintenance decisions. With a target of achievement of this goal with collective and coordinated efforts of Maintenance, IT and other groups.</p> <p>Accomplishment: Deployment of asset health trending software completing configuration of rules and diagnosis for four major critical asset types in 2016 and asset health scoring completed in 2017.</p>
	Improve Technology Management	<p>Action Plan: Expand the mobile asset management system (i.e., preventive maintenance processes through the use of wireless hand-held devices). With a measure of implementation of mobile solutions to facilitate maintenance processes. With a target of two mobile solutions implemented per year with an achievement of this goal requiring the collective, coordinated efforts of maintenance, IT and other groups.</p> <p>Accomplishment: Mobile application developed and deployed for aqueduct inspections, and piloting mobile collection of asset condition data at Salt Gila pumping plant. Wi-Fi is being installed at all CAP facilities in 2017.</p>
	Promote environmental sustainability	<p>Action Plan: Enhance CAP's environmental compliance program in all areas of environmental performance to achieve a high level of compliance and excellence. With the measure of continuing to reduce Opportunities to Correct, using a target of less than 3 OTC issued per month.</p> <p>Accomplishment: Achieved 1.3 OTCs per month in 2016. We are tracking to be at 1 OTC per month in 2017.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Benchmark CAP's maintenance program against other similar utilities and industry best practices in terms of reliability engineering, asset condition management, work execution and leadership. With a measure of completing of assessment by outside expert with a target of complete assessment by end of 2016.</p> <p>Accomplishment: CAP completed the Asset Management Customer Value (AMCV) benchmark in Q1 of 2017.</p>

FIELD MAINTENANCE

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Maintain high levels of skills and job proficiency among employees	<p>Action Plan: Maintain an effective apprenticeship program to insure that retiring employees are replaced by qualified personnel that have been trained by veteran staff to understand the uniqueness of the CAP organization and operation. With a measure of availability of apprenticeship program graduates to replace retiring employees, with a target of an average of 2 apprenticeship program graduates per year to be available to replace retiring employees.</p> <p>Accomplishment: Graduated 2 apprentices per year. 2016 one mechanic, one industrial coater; 2017 2 mechanics.</p>

FIELD MAINTENANCE BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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Project Reliability		<p>Action Plan: Maintain coordinated financial strategies (budget, reporting, revenues, rates, expenditures, taxes, reserves)</p> <p>Expected Outcome: Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities. With measure of variance between budget and actual expenses. With a measurement and target of managing actual expenses to no more than 2% over and no less than 5% under approved budget.</p>
	Provide reliable and cost-effective water deliveries	<p>Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages.</p> <p>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. With measurement and target of less than 2.00% total forced unit outage.</p>
	Continue to address aging infrastructure	<p>Action Plan: Take ownership of tactical asset management teams (TAM) to drive defect elimination while fostering employee participation.</p> <p>Expected Outcome: 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. Ensure effective communication between the TAM/SAM teams. With a measurement of reduced average backlog age.</p> <p>Action Plan: Support Strategic Asset Management Team (SAM) in making repair/ rehab/ replace decisions for aging infrastructure.</p> <p>Expected Outcome: As required, 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. With a measurement of Outage Schedule Performance \geq 85%.</p>

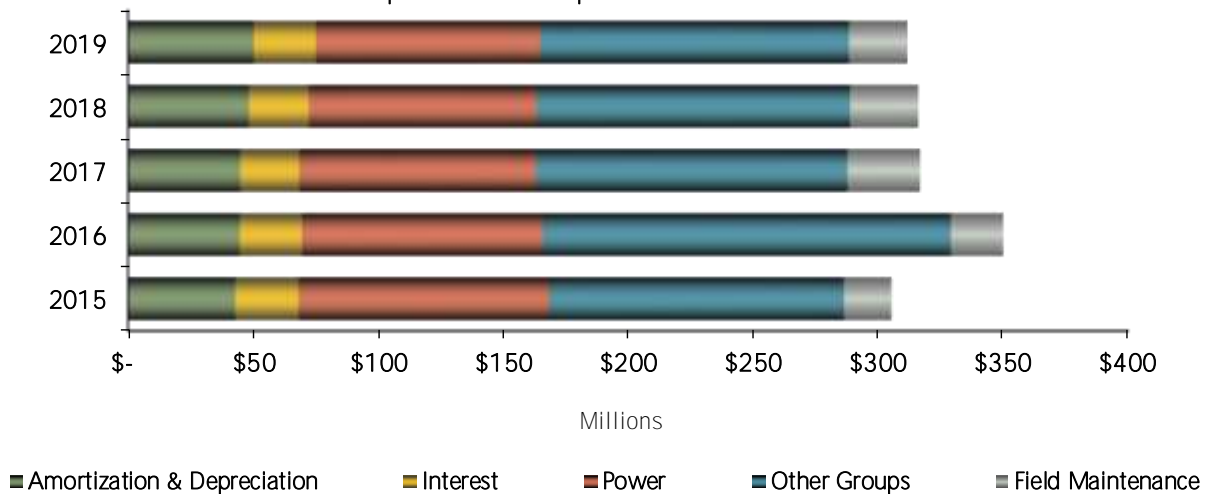
FIELD MAINTENANCE BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Project Reliability	Achieve industry best maintenance practices	Action Plan: Utilize failure codes.
		Expected Outcome: Use accurate failure codes to provide feedback to maintenance planners and reliability engineers to highlight failure trends for corrective action. Provide Quality Assurance to ensure failure codes are relevant to systems being maintained. With a measurement of increased use of defined failure codes in Infor.
		Action Plan: Schedule periodic Board field visits to critical CAP assets to foster direct knowledge of infrastructure capacity and conditions.
		Expected Outcome: Provide at least 2 opportunities to Board Members Annually.
	Maintain a safe and secure working environment	<p>Action Plan: Maintain Voluntary Protection Program Star status with Arizona Division of Occupational Safety and Health.</p> <p>Expected Outcome: 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).</p>

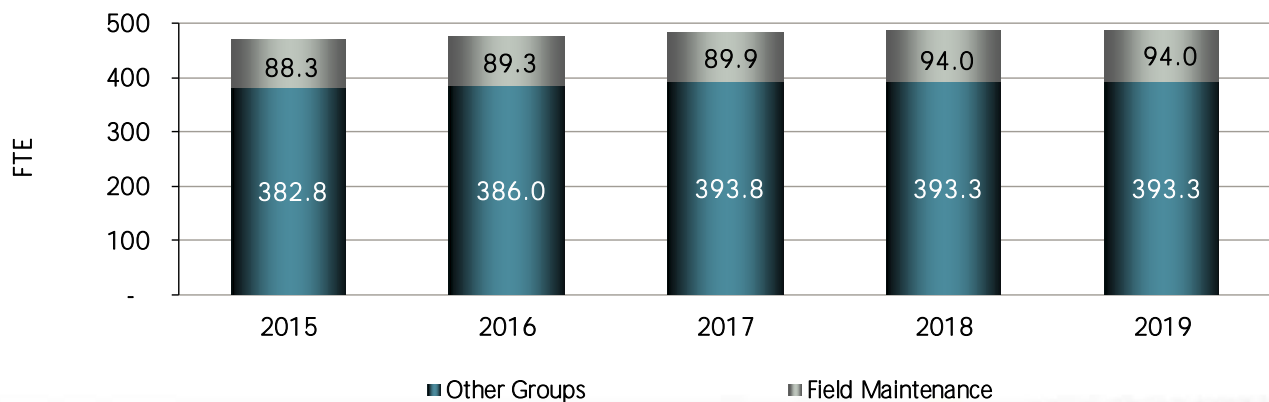
FIELD MAINTENANCE BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 6,976	\$ 7,295	\$ 7,356	\$ 7,829	\$ 8,111
Outside services	1,038	1,509	1,394	1,530	1,546
Materials & supplies	2,850	3,241	3,230	3,518	3,435
Other expenses	2,083	3,612	7,853	7,965	8,589
Total Operating Expenses	\$ 12,947	\$ 15,657	\$ 19,833	\$ 20,842	\$ 21,681
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 12,947	\$ 15,657	\$ 19,833	\$ 20,842	\$ 21,681
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 12,947	\$ 15,657	\$ 19,833	\$ 20,842	\$ 21,681
Capital Expenditures	6,075	5,321	9,154	6,410	1,745
Total Expenditures	\$ 19,022	\$ 20,978	\$ 28,987	\$ 27,252	\$ 23,426
Staffing (FTE)	88.3	89.3	89.9	94.0	94.0

Field Maintenance Expenditures
Compared to Total Expenditures



Maintenance Staffing
Compared to Total Staffing

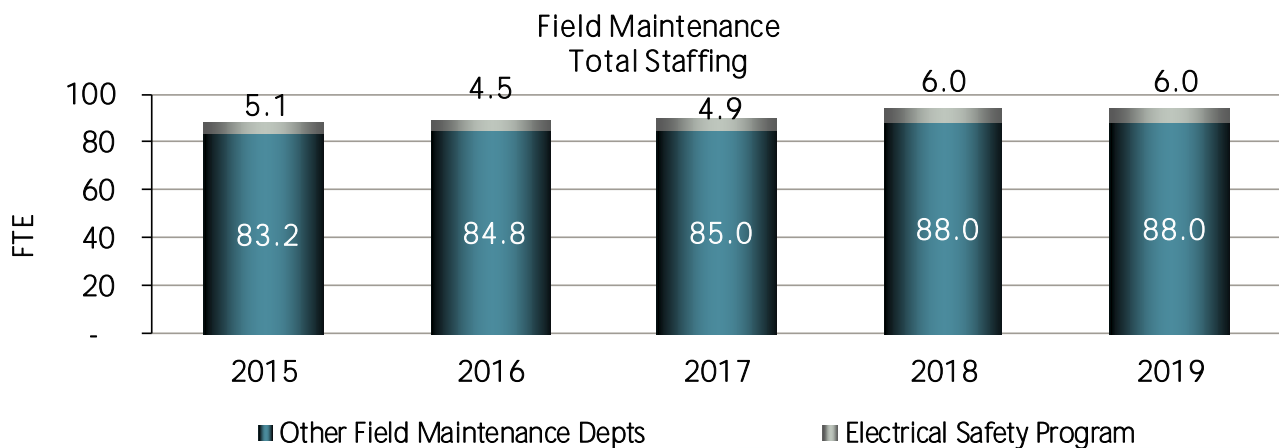
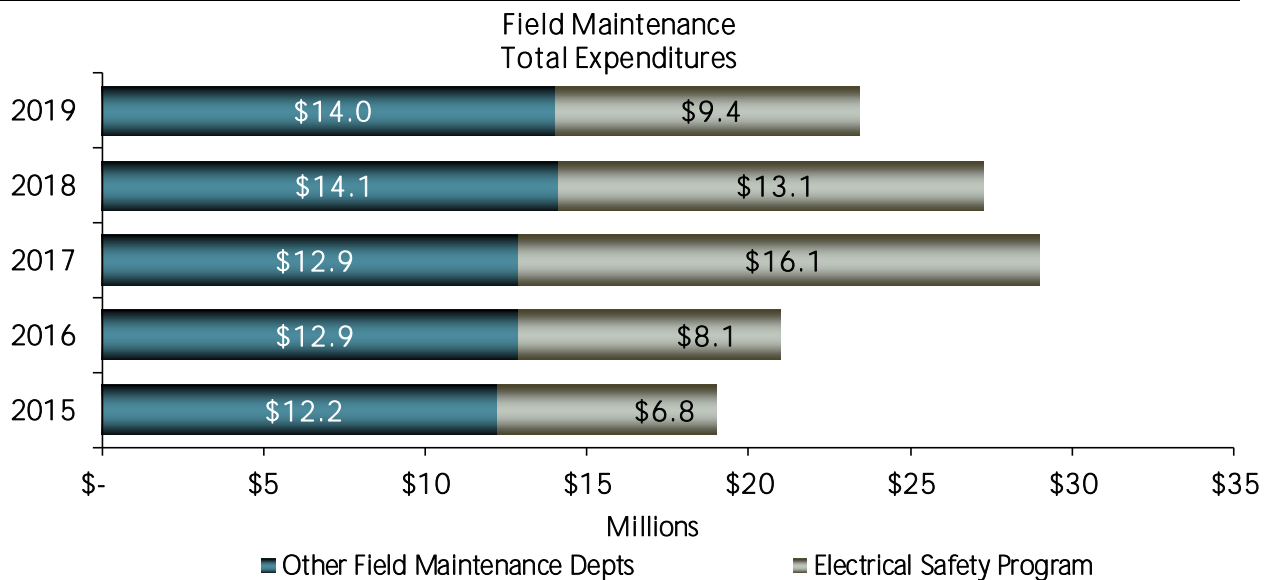


FIELD MAINTENANCE ELECTRICAL SAFETY PROGRAM

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 509	\$ 434	\$ 447	\$ 617	\$ 632
Outside services	-	-	-	-	-
Materials & supplies	22	15	22	26	26
Other expenses	1,546	3,028	7,167	7,168	7,751
Total Operating Expenses	\$ 2,077	\$ 3,477	\$ 7,636	\$ 7,811	\$ 8,409

Expenditures by Fund

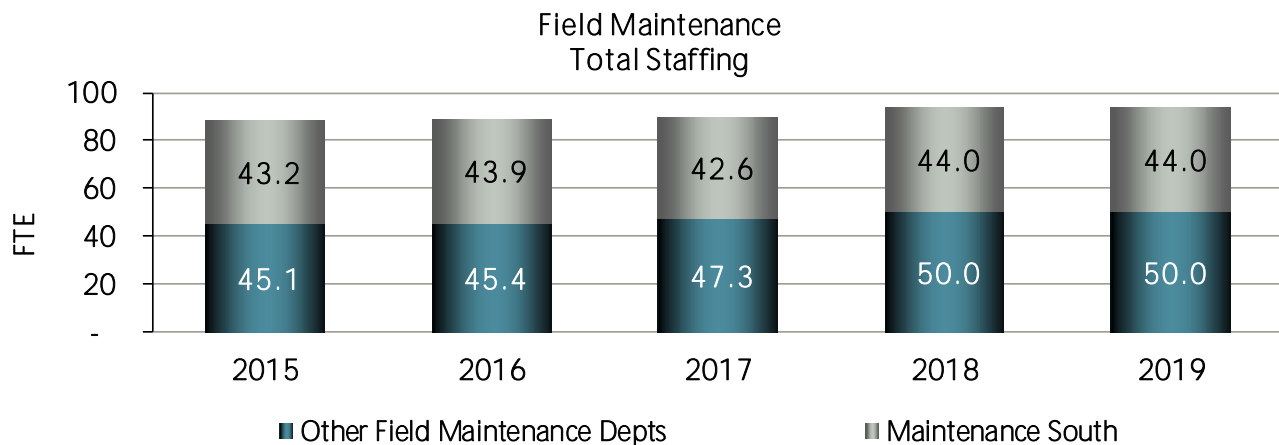
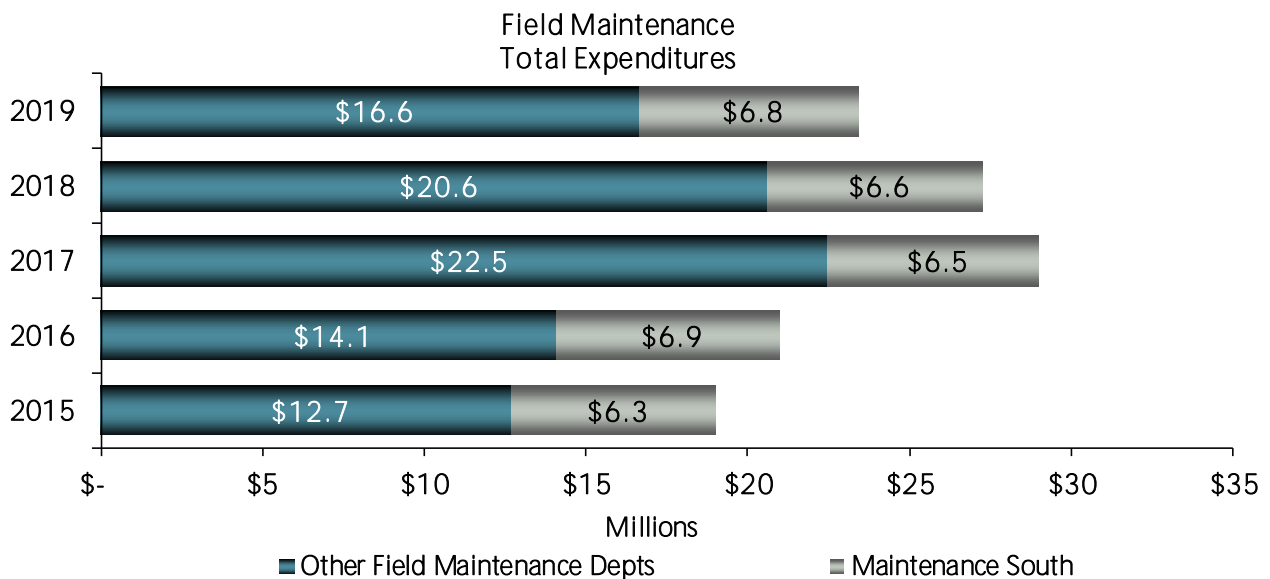
Operating Expenses					
General Fund	\$ 2,077	\$ 3,477	\$ 7,636	\$ 7,811	\$ 8,409
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 2,077	\$ 3,477	\$ 7,636	\$ 7,811	\$ 8,409
Capital Expenditures	4,707	4,597	8,459	5,338	1,003
Total Expenditures	\$ 6,784	\$ 8,074	\$ 16,095	\$ 13,149	\$ 9,412
Staffing (FTE)	5.1	4.5	4.9	6.0	6.0



FIELD MAINTENANCE MAINTENANCE SOUTH

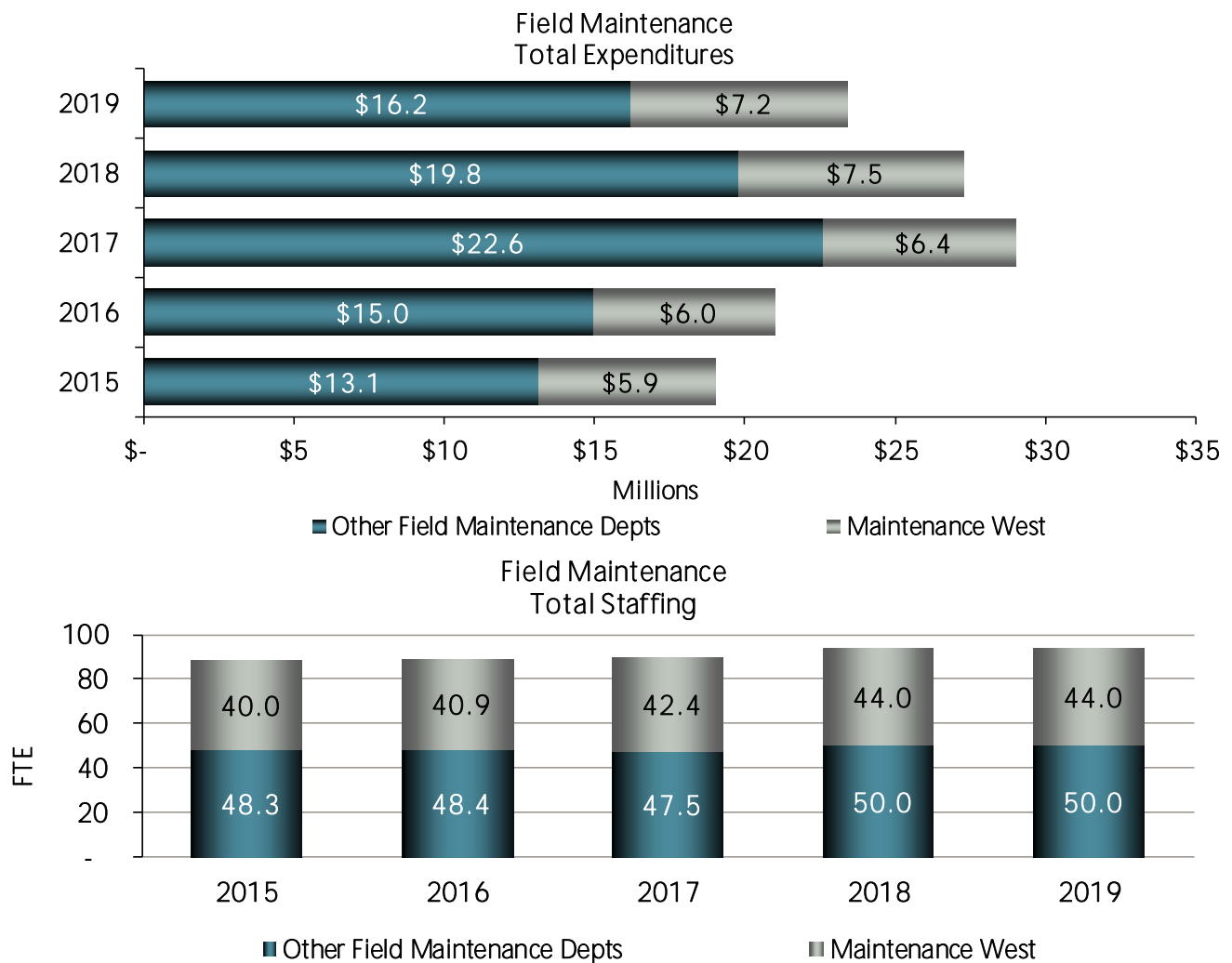
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 3,390	\$ 3,571	\$ 3,415	\$ 3,559	\$ 3,736
Outside services	726	1,211	1,161	935	1,072
Materials & supplies	1,209	1,507	1,448	1,499	1,582
Other expenses	292	320	209	218	352
Total Operating Expenses	\$ 5,617	\$ 6,609	\$ 6,233	\$ 6,211	\$ 6,742

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,617	\$ 6,609	\$ 6,233	\$ 6,211	\$ 6,742
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 5,617	\$ 6,609	\$ 6,233	\$ 6,211	\$ 6,742
Capital Expenditures	712	291	272	433	58
Total Expenditures	\$ 6,329	\$ 6,900	\$ 6,505	\$ 6,644	\$ 6,800
Staffing (FTE)	43.2	43.9	42.6	44.0	44.0



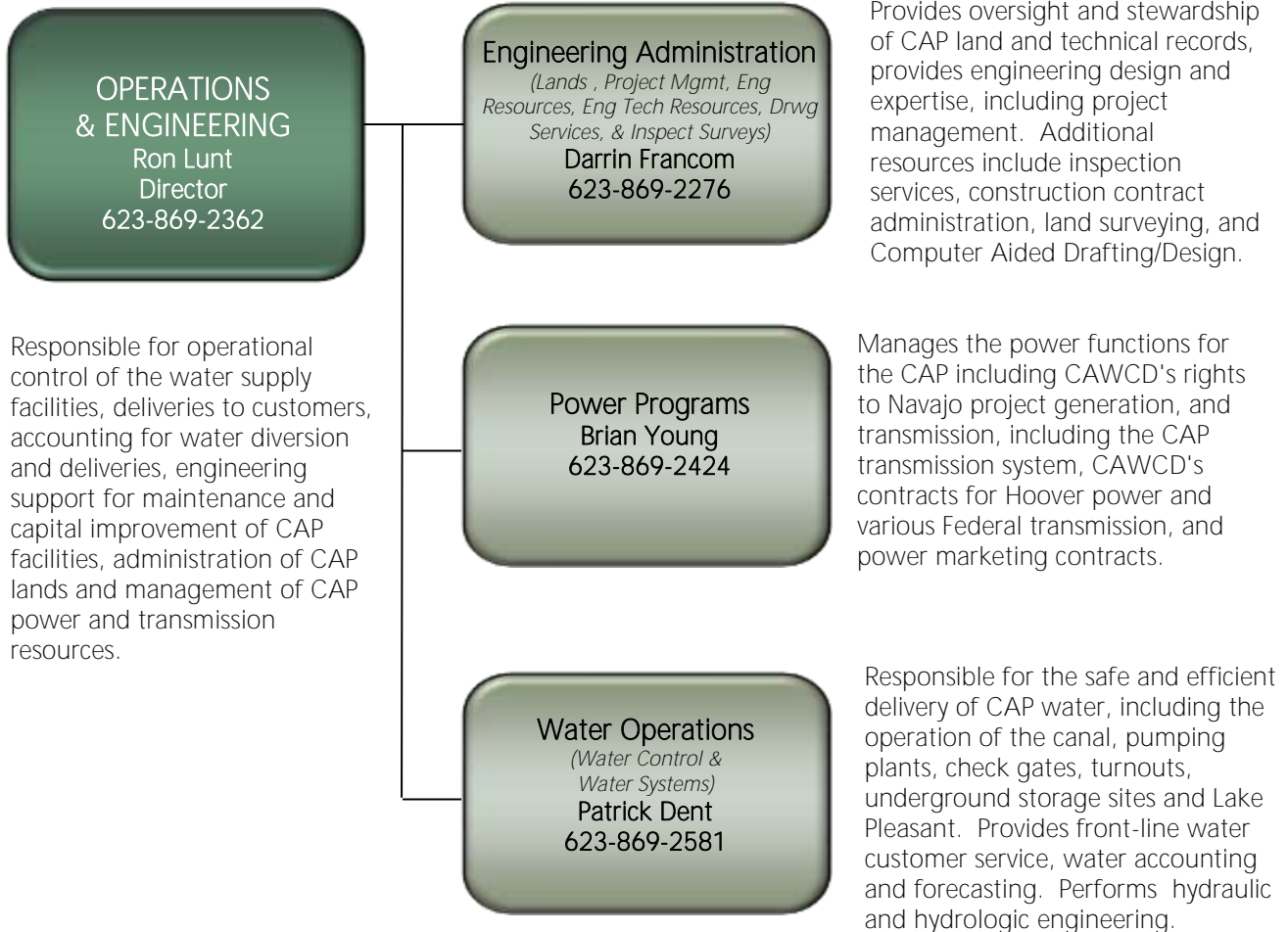
FIELD MAINTENANCE MAINTENANCE WEST

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 3,077	\$ 3,290	\$ 3,494	\$ 3,653	\$ 3,743
Outside services	312	298	233	595	474
Materials & supplies	1,619	1,719	1,760	1,993	1,827
Other expenses	245	264	477	579	486
Total Operating Expenses	\$ 5,253	\$ 5,571	\$ 5,964	\$ 6,820	\$ 6,530
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,253	\$ 5,571	\$ 5,964	\$ 6,820	\$ 6,530
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 5,253	\$ 5,571	\$ 5,964	\$ 6,820	\$ 6,530
Capital Expenditures	656	433	423	639	684
Total Expenditures	\$ 5,909	\$ 6,004	\$ 6,387	\$ 7,459	\$ 7,214
Staffing (FTE)	40.0	40.9	42.4	44.0	44.0



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.



OPERATIONS & ENGINEERING

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Enhance effective project management	<p>Action Plan: Manage long-term capital improvement plan consistent with ensuring system reliability, including major equipment replacement and rehabilitation. With a measure of compliance with project schedules and budgets and Project Steering Committee (PSC) rules. With a target of the capital improvement plan managed within approved budget.</p> <p>Accomplishment: The capital improvement plan was managed within the approved budget, with adjustments made to the plan to accommodate project reprioritization and staffing allocations. All work was executed within the approved budget.</p>
		<p>Action Plan: Improve efficiency and timeliness in updating technical documents, including as-built drawings and Standard Operating Procedures (SOP). With a measure of significantly decrease drawing and SOP backlog. With a target of completing Autodesk Vault installation and document migration. Reduce as-built drawing backlog to 3 months with 75% compliance.</p> <p>Accomplishment: Autodesk Vault has been fully implemented and has begun to show efficiency benefits. The as-built backlog has been reduced, but this is still an area for continued improvements and focus.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Action Plan: Prioritize and implement asset modification work orders. With a measure of compliance with planned budgets, schedules, outage constraints and agreed upon processes. With a target of completing prioritization of all outstanding asset modification work orders. Complete design and implementation of all approved asset modifications.</p> <p>Accomplishment: Engineering and Maintenance engaged in asset modification prioritization and all high priority work orders for each year were identified and accomplished.</p>
		<p>Action Plan: Implement cradle-to-grave asset management and asset sustainability programs. With a measure and target of incorporation of RCM considerations in all phases of capital improvement and asset modification processes, including business needs analysis, design and acquisition.</p> <p>Accomplishment: Full scale RCM processes were utilized at the start of appropriate capital improvement projects. The principals of RCM and business needs analysis are being actively applied for asset modifications and within the Project Steering Committee during project approval, assessment of options and planning phases.</p>

OPERATIONS & ENGINEERING

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Project Reliability	Provide reliable and cost-effective water deliveries	<p>Action Plan: Reliably deliver CAP water to satisfy all customer water orders. With a measure and target of 100% of annual customer water orders delivered based on final end-of-year water orders.</p> <p>Accomplishment: All customer water deliveries requests were met .</p>
	Manage Colorado River to optimize CAP water availability	<p>Action Plan: Manage Colorado River diversions and deliveries to fulfill CAP commitments under MOU among lower basin water users and the BOR. With a measure and target of acre-feet of Protection Volume stored in Lake Mead; target is 345,000 AF by the end of 2017.</p> <p>Accomplishment: In 2016 Water Operations targeted leaving 193,875 acre-feet in Lake Mead. This volume includes CAP's remaining full commitment of the MOU of 345,000 acre-feet one year early.</p>
Water Supply	Coordinate efforts to sustain CAP's ability to deliver all available Colorado River water	<p>Action Plan: Maximize permitted capacity of existing recharge facilities. With a measure of successfully modify the Superstition Mountains Recharge project underground storage facility permit to allow for storage of 52,500 AF per year using the two existing basins. With a target of securing ADWR's approval of permit modification by 2016.</p> <p>Accomplishment: Permitting efforts were ongoing in 2016, application has been made to ADWR for permit modification of the existing basins and we are waiting for their response.</p>
	Prepare for eventual replacement of Navajo Generating Station	<p>Action Plan: Continually monitor energy developments and provide periodic updates to the Board on market prices for energy, technological advances and cost of alternative generation. With a measure of the Board remaining informed on relevant energy developments. With a target of at least 3 Board updates provided annually.</p> <p>Accomplishment: More than 3 Board updates were provided on energy developments during 2016.</p>

OPERATIONS & ENGINEERING

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
Power	Enhance transmission reliability	<p>Action Plan: Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative generation resources. With a measure of completing a planned PV-Morgan and Hassayampa Tap transmission project. With a target of energization of PV-Morgan line to Sun Valley Substation by end of 2016, and energization of line from Sun Valley Substation to Hassayampa Tap by end of 2018.</p>
		<p>Accomplishment: The PV-Morgan segment of the project from PV to Sun Valley was completed in 2016. The PV-Morgan segment from Sun Valley to Morgan is currently under construction, on schedule, and under budget. Procured and delivered materials for the Hassayampa Tap project and the construction contract was awarded in 2017. The project is on target for energization before the end of 2018.</p>
		<hr/> <p>Action Plan: Replace unreliable wood poles on ED2-Saguaro transmission line with steel structures. With a measure of completely replacing wood poles along all 37.5 miles of ED2-Saguaro line. With a target of commencing replacement project in 2016 and complete by 2019.</p> <p>Accomplishment: The project is ahead of schedule and under budget. The project construction commenced as planned in Q3, 2016. The project is currently ahead of schedule and is projected to be completed prior to June 15, 2018.</p>

OPERATIONS & ENGINEERING BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Action Plan: Balance department focus to effectively accomplish both the Capital Improvements Plan and the support of items from Maintenance.</p> <p>Expected Outcome: Track pre-project completion estimate to actual completion status. Monitor and report to ensure the Capital Budget is not exceeded.</p>
Project Reliability	Achieve industry best maintenance practices	<p>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 continuous efficiencies and improvement.</p> <p>Expected Outcome: Display positive trends in the tracked KPIs.</p> <p>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.</p> <p>Expected Outcome: Ensure that the plan is developed and is tracking at least 85% of all major work that is being executed.</p>
Water Supply	Optimize reliability and sustainability of CAP water supply	<p>Action Plan: Manage Colorado River diversions to optimize CAP's Colorado River entitlement and support efforts to protect Lake Mead.</p> <p>Expected Outcome: Divert CAP's full entitlement less water that is 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.</p> <p>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.</p> <p>Expected Outcome: Have Permit renewal's completed 1-year ahead of permit expiration in 2019, to avoid interruption to recharge activities.</p>

OPERATIONS & ENGINEERING

BUSINESS GOALS - 2018 AND 2019

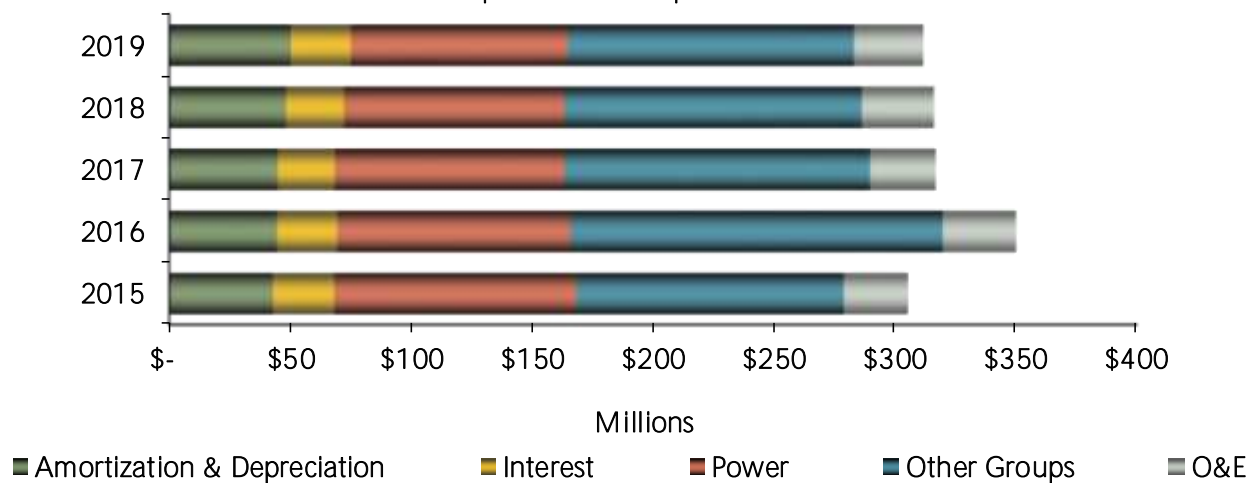
Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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Power		<p>Action Plan: Continually monitor energy developments and provide periodic updates to the Board on market prices for energy, technological advances, cost of alternative generation and procurement of power resources.</p> <p>Expected Outcome: Provide at least 3 updates to the Board annually to keep informed on relevant energy developments.</p>
	Secure reliable, sustainable, cost-effective generation resources	<p>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.</p> <p>Expected Outcome: Secure power resources in advance of NGS closure that are necessary for reliable, cost-effective supply of CAP load.</p>
		<p>Action Plan: Develop options for a post NGS portfolio that complies with the Boards' Risk guidance.</p> <p>Expected Outcome: Secure power resources in advance of the portfolio guidelines.</p>
	Enhance transmission reliability	<p>Action Plan: Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative generation resources.</p> <p>Expected Outcome: The following indices are calculated and benchmarked to Western Electric Coordinating Council (WECC) standards annually: Index of Transmission Reliability (ITR); Total transmission system availability; With a measure 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.</p>
		<p>Action Plan: Replace unreliable wood poles on ED2-Saguaro transmission line with steel structures. With a measure of completely replacing wood poles along all 37.5 miles of ED2-Saguaro line.</p> <p>Expected Outcome: Complete replacement of line by 2019.</p>

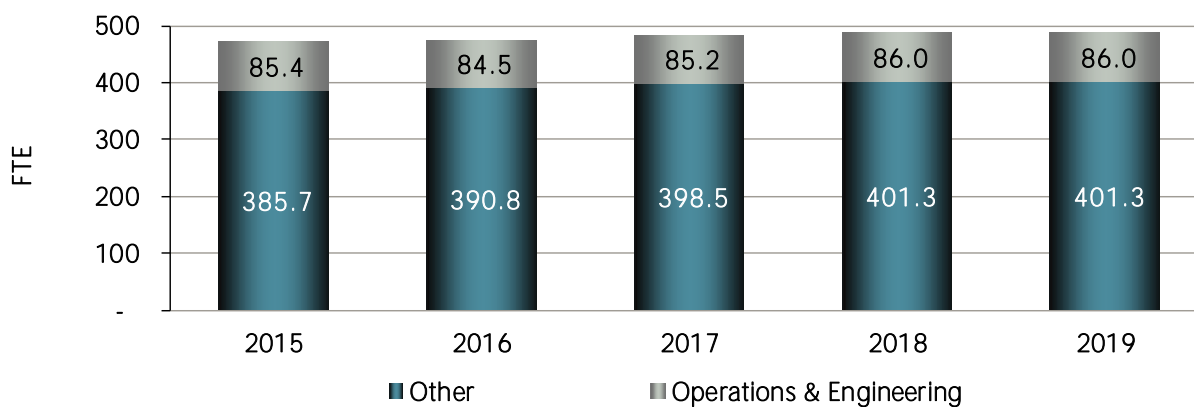
OPERATIONS & ENGINEERING BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 4,959	\$ 5,446	\$ 5,654	\$ 6,397	\$ 6,941
Outside services	1,626	5,625	5,663	2,906	9,163
Materials & supplies	127	186	116	261	161
Water for recharge	-	-	-	-	-
Other expenses	478	530	567	547	577
Total Operating Expenses	\$ 7,190	\$ 11,787	\$ 12,000	\$ 10,111	\$ 16,842
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 7,190	\$ 11,787	\$ 12,000	\$ 10,111	\$ 16,842
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 7,190	\$ 11,787	\$ 12,000	\$ 10,111	\$ 16,842
Capital Expenditures	19,376	18,504	15,132	19,693	11,898
Total Expenditures	\$ 26,566	\$ 30,291	\$ 27,132	\$ 29,804	\$ 28,740
Staffing (FTE)	85.4	84.5	85.2	86.0	86.0

Operations & Engineering Expenditures
Compared to Total Expenditures

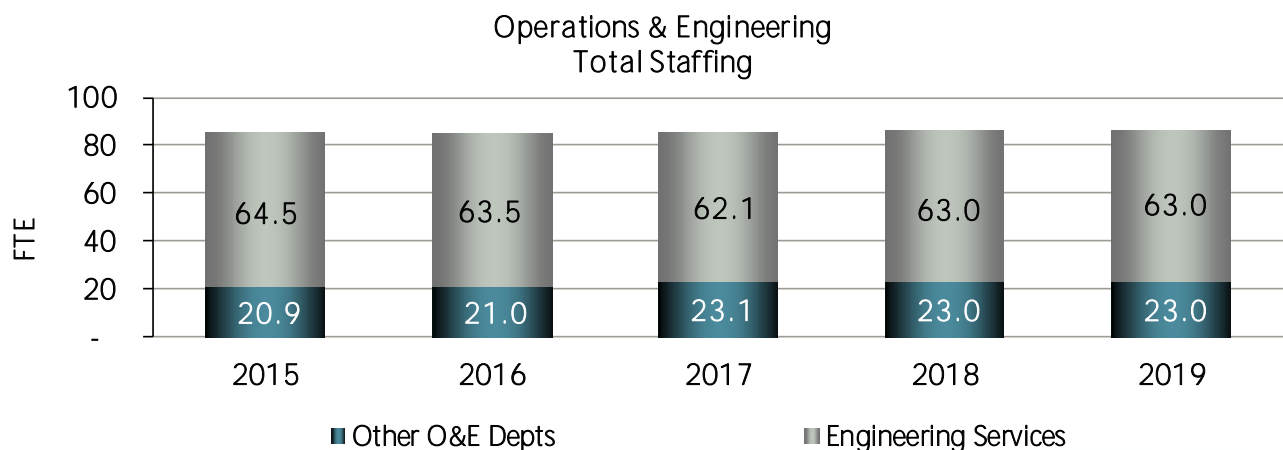
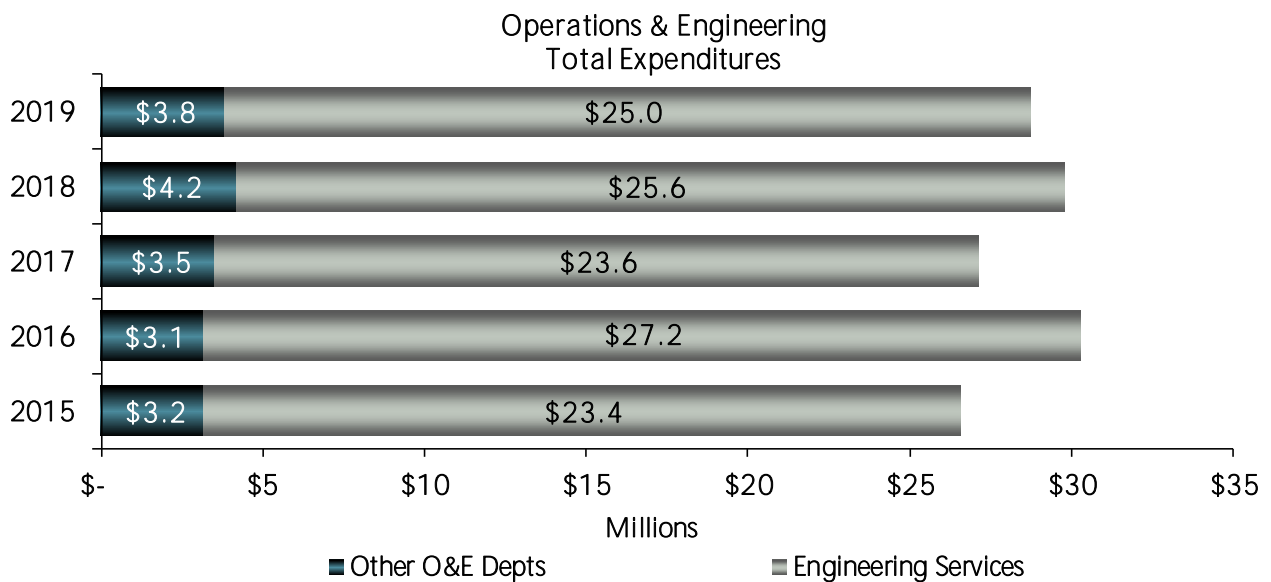


Operations & Engineering Staffing
Compared to Total Staffing



OPERATIONS & ENGINEERING ENGINEERING SERVICES

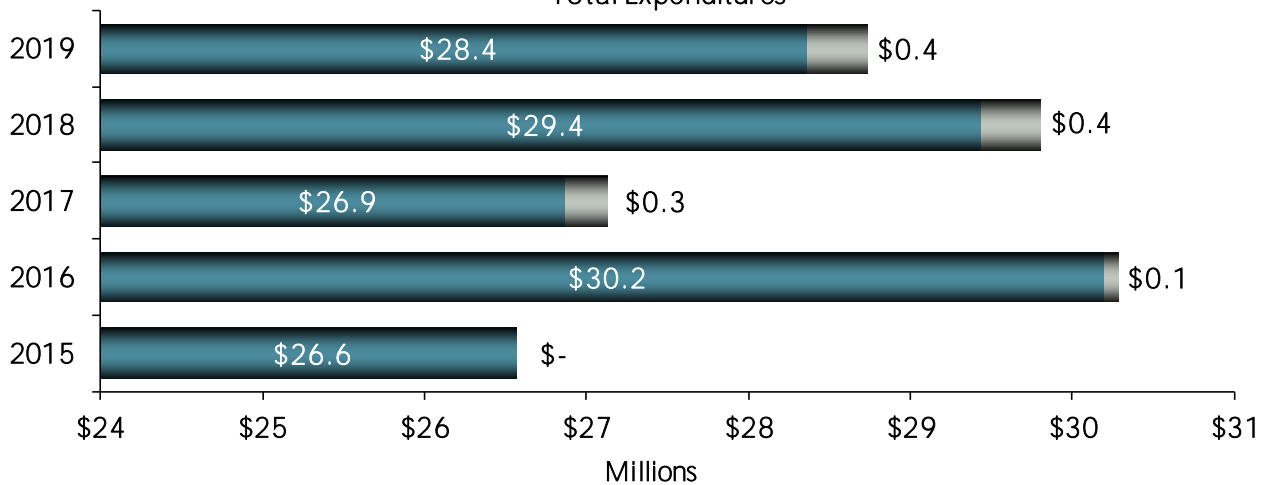
(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 2,945	\$ 3,386	\$ 3,294	\$ 3,980	\$ 4,451
Outside services	863	4,970	4,865	1,601	8,235
Materials & supplies	97	136	90	149	144
Other expenses	111	241	239	204	224
Total Operating Expenses	\$ 4,016	\$ 8,733	\$ 8,488	\$ 5,934	\$ 13,054
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,016	\$ 8,733	\$ 8,488	\$ 5,934	\$ 13,054
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 4,016	\$ 8,733	\$ 8,488	\$ 5,934	\$ 13,054
Capital Expenditures	19,376	18,418	15,118	19,693	11,898
Total Expenditures	\$ 23,392	\$ 27,151	\$ 23,606	\$ 25,627	\$ 24,952
Staffing (FTE)	64.5	63.5	62.1	63.0	63.0



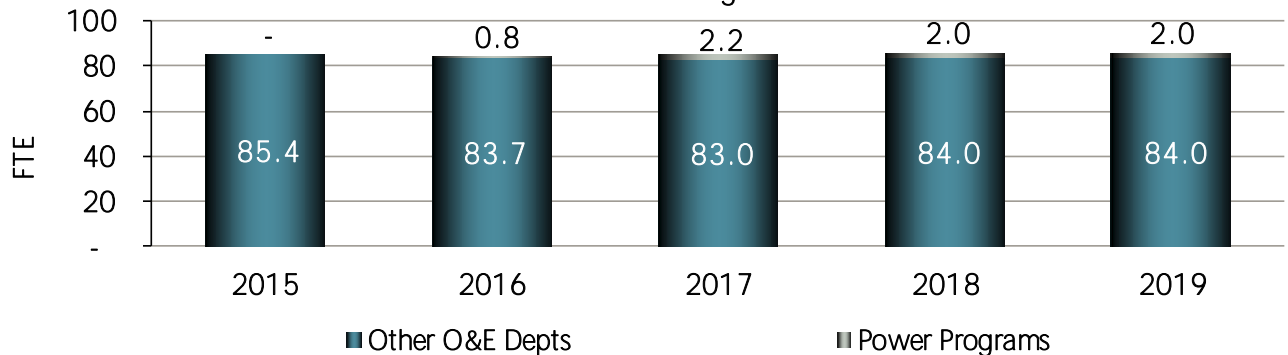
OPERATIONS & ENGINEERING POWER PROGRAMS

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ -	\$ 86	\$ 242	\$ 236	\$ 243
Outside services	-	-	11	120	120
Materials & supplies	-	-	-	1	1
Water for recharge	-	-	-	-	-
Other expenses	-	1	6	11	11
Total Operating Expenses	\$ -	\$ 87	\$ 259	\$ 368	\$ 375
Expenditures by Fund					
Operating Expenses					
General Fund	\$ -	\$ 87	\$ 259	\$ 368	\$ 375
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ -	\$ 87	\$ 259	\$ 368	\$ 375
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ -	\$ 87	\$ 259	\$ 368	\$ 375
Staffing (FTE)	-	0.8	2.2	2.0	2.0

Operations & Engineering
Total Expenditures



Operations & Engineering
Total Staffing

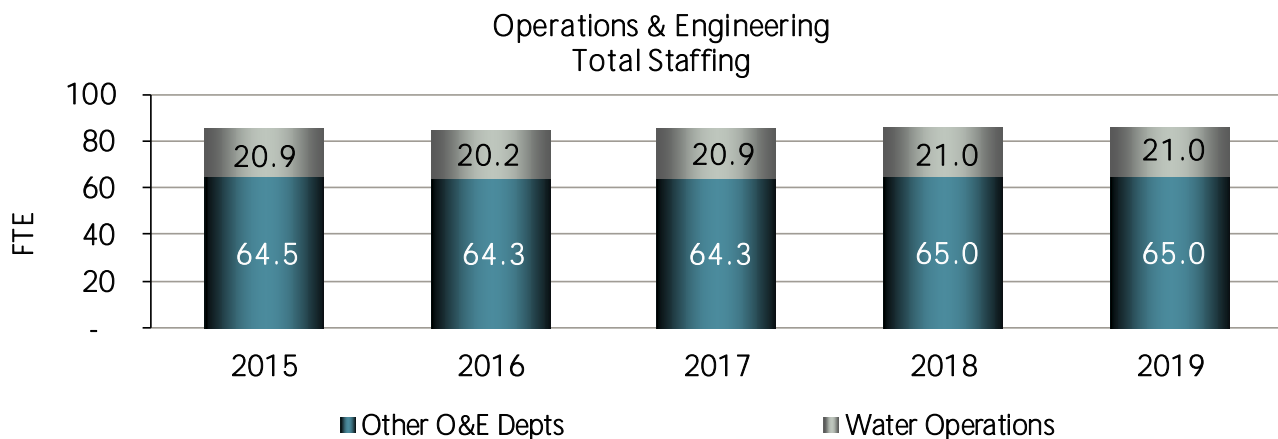
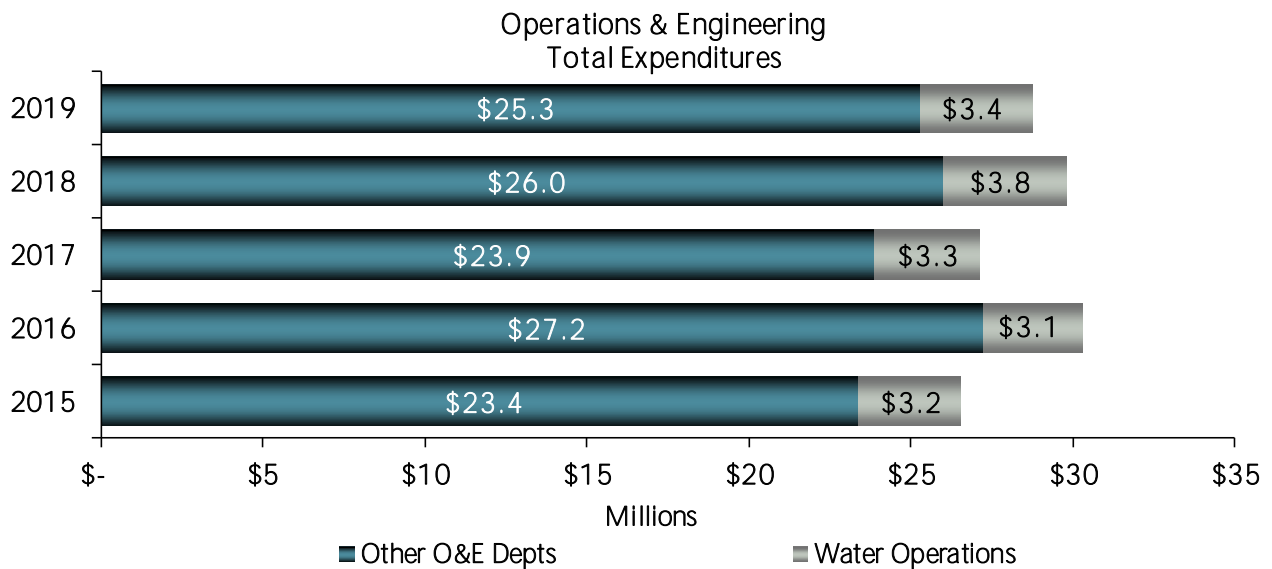


OPERATIONS & ENGINEERING WATER OPERATIONS

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 2,014	\$ 1,974	\$ 2,118	\$ 2,181	\$ 2,247
Outside services	763	655	787	1,185	808
Materials & supplies	30	50	26	111	16
Other expenses	367	288	322	332	342
Total Operating Expenses	\$ 3,174	\$ 2,967	\$ 3,253	\$ 3,809	\$ 3,413

Expenditures by Fund

Operating Expenses					
General Fund	\$ 3,174	\$ 2,967	\$ 3,253	\$ 3,809	\$ 3,413
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 3,174	\$ 2,967	\$ 3,253	\$ 3,809	\$ 3,413
Capital Expenditures	-	86	14	-	-
Total Expenditures	\$ 3,174	\$ 3,053	\$ 3,267	\$ 3,809	\$ 3,413
Staffing (FTE)	20.9	20.2	20.9	21.0	21.0

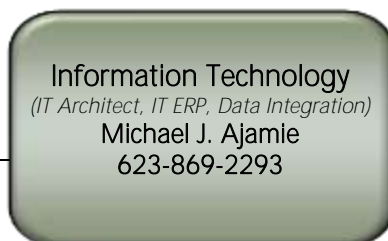


TECHNOLOGY

Mission: The Technology Group is responsible to make technology an asset and build appropriate technology solutions, which integrate seamlessly within the CAP architecture. Focusing on long-term technology investments, ensuring reliable technology solutions meet our customers' needs today and tomorrow.



Responsible for developing and maintaining highly effective, reliable, and secure technology systems to support the District's business objectives.



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 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.

TECHNOLOGY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
	Develop IT strategic plan, governance framework and enterprise architecture to align IT strategies with business and operational strategies	<p>Action Plan: Develop technology cloud committee and combine or eliminate redundant efforts and create enterprise architecture program. With a measure/target of assisting with the creation of a technology cloud committee by 7/31/2015 and define enterprise architecture, implement an enterprise architecture program with specific goals as it relates to CAP requirements (size the effort correctly) .</p> <p>Accomplishment: Developed and chaired the Technology cloud committee through 2016. Updated technology strategy and communicated this through the departments. Updated the Project Review Team's responsibilities to review net new technology before the implementation phase. (2017)</p>
Project Reliability	Prepare and plan for potential threats to CAP water operations	<p>Action Plan: Improve system reliability through equipment refresh and process improvements. Consideration of business continuity for the 15 critical systems that include enterprise applications and automate processes where feasible.</p> <p>Measure/Target: Reduce unplanned system outages to less than 12 per year; monthly reports will track outages. Research next generation technologies which includes:</p> <ol style="list-style-type: none"> 1) Implementing virtual routing to isolate control networks from production networks; this allows use of the same infrastructure but logically separates them; 2) Implementing use of a sinkhole network to mitigate impact of a DOS attack; 3) Implement device profiling technologies. <p>Accomplishment: System availability met the outage metric of <12 per year. The critical technology systems were tested and additional redundancy implemented to meet the business requirement changes specific to email and mobile devices. In addition, all systems were moved to the new data center in Q2 2016 and all network traffic is now being inspected (incoming/outgoing) as an additional level of security to prevent attacks. The data is being inspected by an outside company to add another layer of protection. A behavioral based end point protection was installed reducing computer exploits from 125 per year to zero. Additional Internet redundancy will be online in Q3 2017.</p>

TECHNOLOGY

ACCOMPLISHMENTS - 2016 AND 2017

Key Result Area	Strategic Objectives	2016-2017 Action Plans & Accomplishments
	Prepare and plan for potential threats to CAP water operations	<p>Action Plan: To assist with plans during table top exercises for Information Technologies (IT) and Water Control. With measure and target of how many exercises are performed, with a target of two exercises per year. - one with Business Disaster Resources (BDR) and one with the control room.</p> <p>Accomplishment: Coordinated with Department of Homeland Security to complete an Instrumentation Control System audit. This was completed after several on site meetings and completing a best practices document to help improve SCADA security. In addition, supported the upgrade of our Disaster Recovery System to BC in the Cloud. All systems were recovered quarterly with the 15 critical system data sets tested as required. The Control Center relocated as part of the HVAC project, moving to the Waddell remote location during phase 2.</p>
Project Reliability	Protect and secure CAP's Information Technology assets and information. Protect sensitive business information, vital records and preserve historical information	<p>Action Plan: Complete disaster recovery exercises and monitor network for suspicious activity; install, run and upgrade anti-virus and anti-spyware; upgrade equipment to maintain highest levels of security; employ Internet filters, email filters and firewalls; require dual authentication to access systems. With a measure and target of performing three disaster recovery exercises. Improve availability, security and recoverability of CAP data (upgrade of tools). Testing and recovery of 15 critical business applications. Align data integration projects with goal of improved management of data life cycle.</p> <p>Accomplishment: Quarterly BDR tests were completed and data sets tested as part of our processes. Several systems were designed and implemented to add additional layers of information security. New network monitoring was added to improve the spam/malware problem. New protections were added to resolve zero day vulnerabilities.</p>
Leadership & Public Trust	Further develop amount and type of content presented electronically to internal and external entities	<p>Action Plan: Complete build of web service projects to share information with CAP internal and external customers. With a measure and target of completing Water Management System phase 5 by 12/31/2016. Complete 2 mobile projects each calendar year to support internal / external customers with access to business applications. Upgrade remote access capabilities to allow users more flexibility. Complete upgrades by 12/31/2016.</p> <p>Accomplishment: An outside contractor was brought in to support the Water Management System and complete an additional phase in 2016. Two mobile inspection projects completed in 2016 and the wireless access points were purchased for installation in 2017. The Virtual Desktop Installation project completed in Q4 and improved employees ability to access CAP applications remotely.</p>

TECHNOLOGY

BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
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Action Plan: Update the Technology strategic plan.

Expected Outcome: 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.

Action Plan: Implement technology solution that will allow data to be available and integrate with multiple systems.

Expected Outcome: Research and implement a middleware solution. This solution will allow multiple data sets to be consumed regardless of the data silo.

Action Plan: Implement the ability to calculate cost of ownership solution as it pertains to technology solutions.

Expected Outcome: Manage the licensing and equipment costs as it pertains to capital projects.

Project Reliability
Maintain effective information technology systems

Action Plan: Improve customer service.

Expected Outcome: 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.

Action Plan: Define enterprise hardware and software standards.

Expected Outcome: Complete an enterprise governance program for CAP. Also, create development standards for CAP. This ties to the technology service portfolio action plan.

Action Plan: Improve the IT asset management process.

Expected Outcome: Develop a long-term integrated technology life-cycle management plan. Include Operational Technology and SCADA where applicable.

TECHNOLOGY

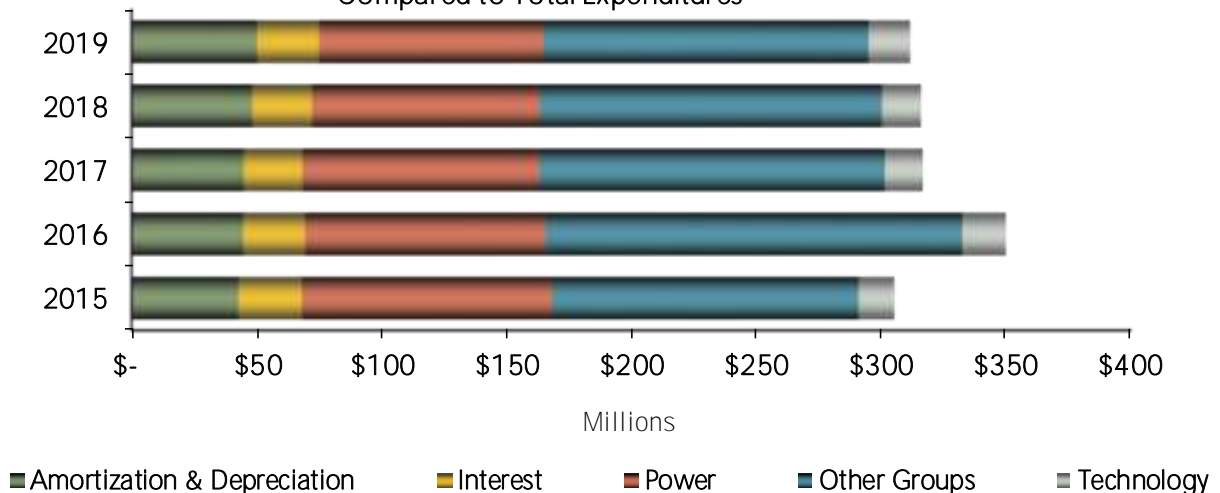
BUSINESS GOALS - 2018 AND 2019

Key Result Area	Strategic Objectives	2018-2019 Action Plans & Expected Outcomes
		<p>Action Plan: Improve the management of information that can be shared.</p> <p>Expected Outcome: 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.</p>
	Maintain effective information technology systems	<p>Action Plan: Improve information security.</p> <p>Expected Outcome: Validate current technology security practices, identify new threats, complete assessments, and update tools needed to secure CAP information (annually).</p>
Project Reliability		<p>Action Plan: Define and buildout CAP's mobile workforce.</p> <p>Expected Outcome: Provide direction to the Mobility committee. In addition, research and implement the systems needed to share data internally and externally to CAP.</p>
	Maintain preparedness for business and infrastructure disasters and threats	<p>Action Plan: Prepare and plan for potential threats to CAP water operations, including refreshers of previous infrastructure threat assessments.</p> <p>Expected Outcome: Complete 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.</p>

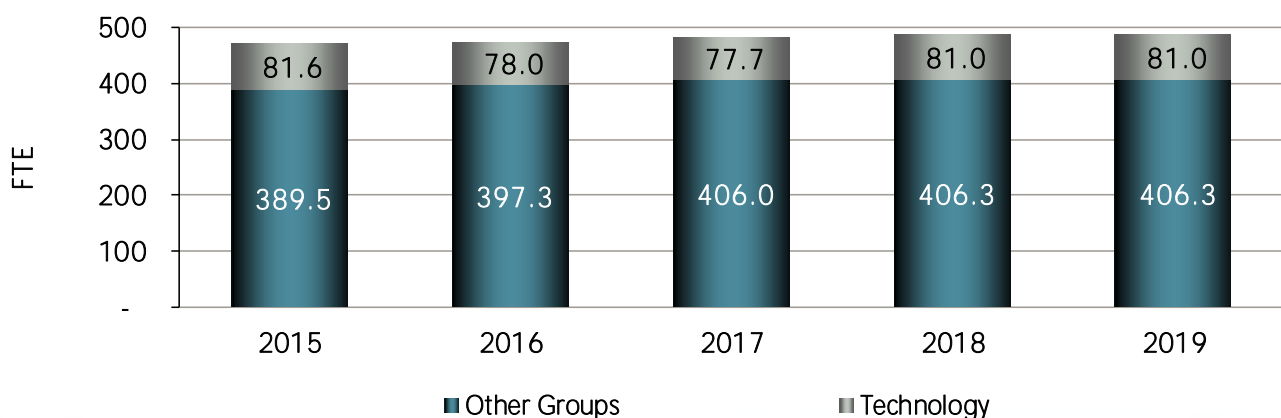
TECHNOLOGY BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 6,662	\$ 6,844	\$ 6,832	\$ 7,415	\$ 7,579
Outside services	3,968	4,196	4,655	4,296	4,266
Materials & supplies	1,099	1,344	1,183	1,278	1,115
Other expenses	685	1,061	772	812	828
Total Operating Expenses	\$ 12,414	\$ 13,445	\$ 13,442	\$ 13,801	\$ 13,788
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 12,414	\$ 13,445	\$ 13,442	\$ 13,801	\$ 13,788
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 12,414	\$ 13,445	\$ 13,442	\$ 13,801	\$ 13,788
Capital Expenditures	1,965	4,089	1,735	1,821	2,796
Total Expenditures	\$ 14,379	\$ 17,534	\$ 15,177	\$ 15,622	\$ 16,584
Staffing (FTE)	81.6	78.0	77.7	81.0	81.0

Technology Expenditures
Compared to Total Expenditures



Technology Staffing
Compared to Total Staffing

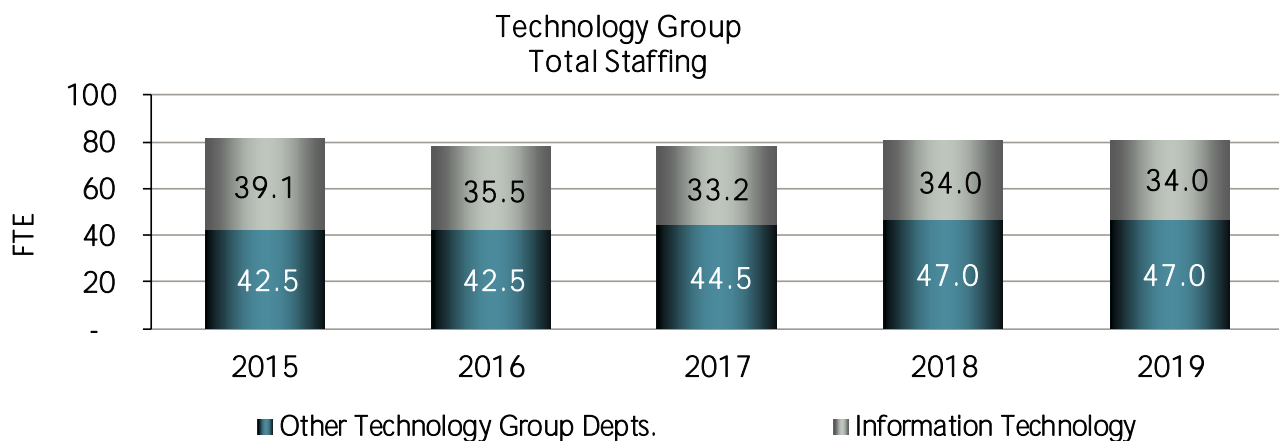
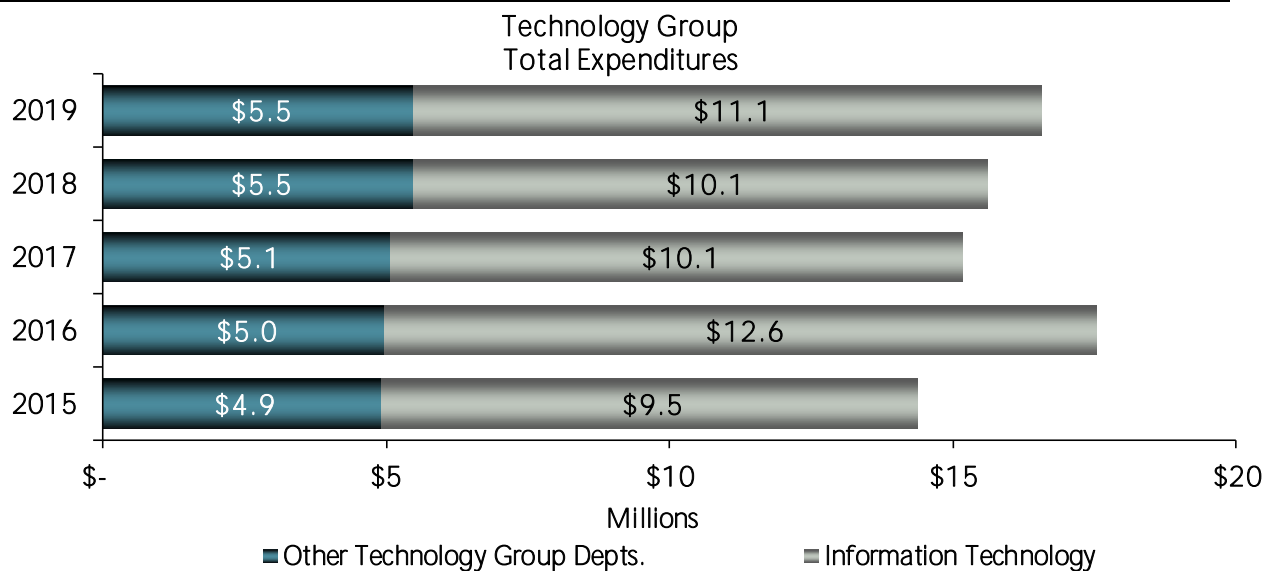


TECHNOLOGY INFORMATION TECHNOLOGY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 3,533	\$ 3,425	\$ 3,312	\$ 3,510	\$ 3,616
Outside services	3,813	4,056	4,508	4,145	4,140
Materials & supplies	641	842	659	666	647
Other expenses	285	608	353	355	372
Total Operating Expenses	\$ 8,272	\$ 8,931	\$ 8,832	\$ 8,676	\$ 8,775

Expenditures by Fund

Operating Expenses					
General Fund	\$ 8,272	\$ 8,931	\$ 8,832	\$ 8,676	\$ 8,775
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 8,272	\$ 8,931	\$ 8,832	\$ 8,676	\$ 8,775
Capital Expenditures	1,202	3,627	1,274	1,457	2,317
Total Expenditures	\$ 9,474	\$ 12,558	\$ 10,106	\$ 10,133	\$ 11,092
Staffing (FTE)	39.1	35.5	33.2	34.0	34.0



TECHNOLOGY

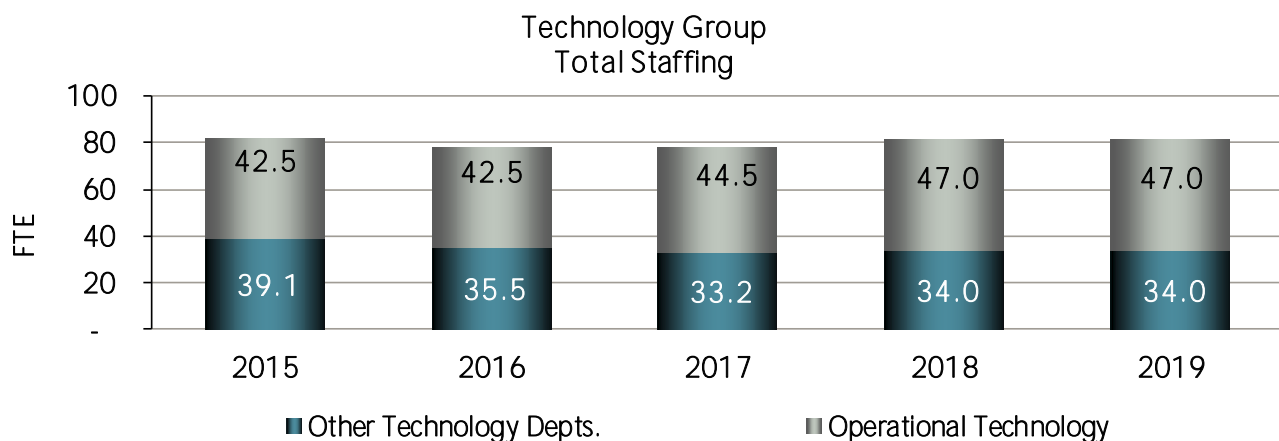
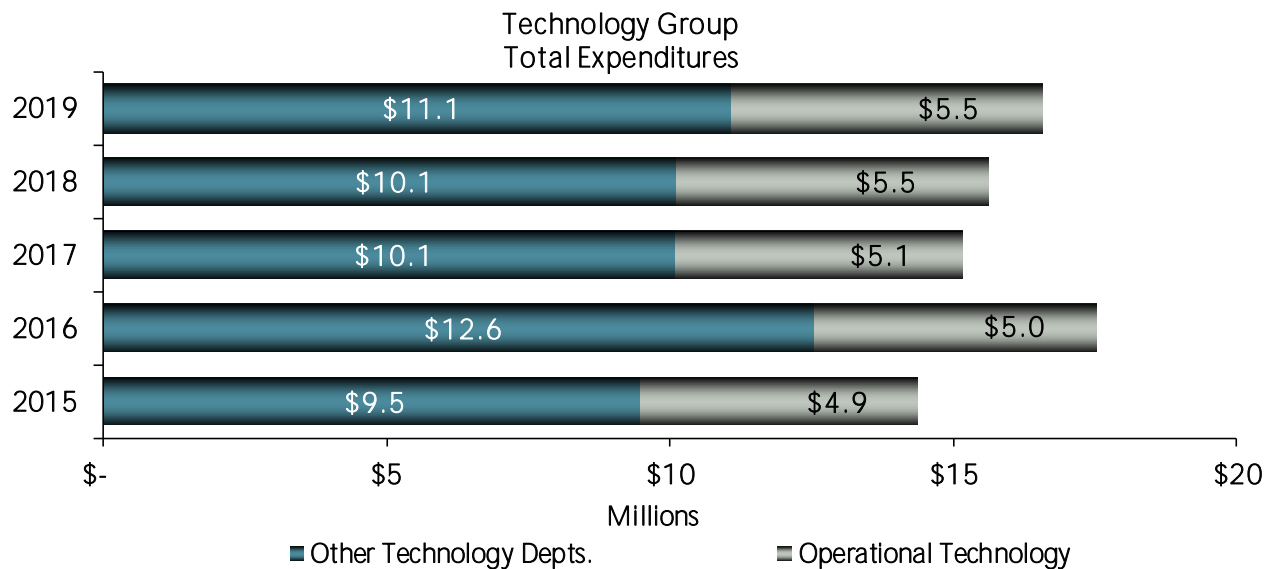
OPERATIONAL TECHNOLOGY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating Expenses					
Salaries & wages	\$ 3,129	\$ 3,419	\$ 3,520	\$ 3,905	\$ 3,963
Outside services	155	140	147	151	126
Materials & supplies	458	502	524	612	468
Other expenses	400	453	419	457	456
Total Operating Expenses	\$ 4,142	\$ 4,514	\$ 4,610	\$ 5,125	\$ 5,013

Expenditures by Fund

Operating Expenses

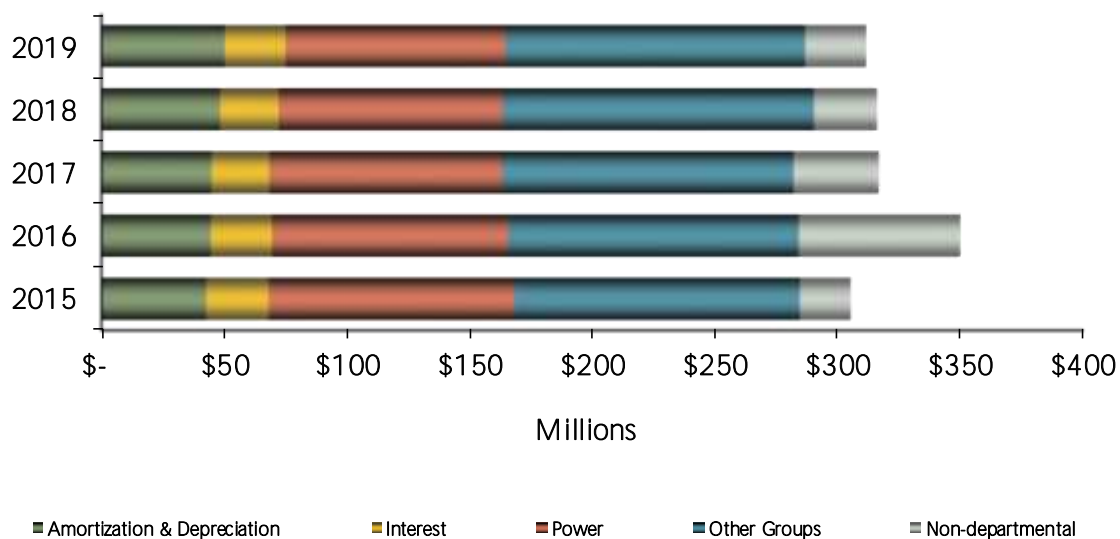
General Fund	\$ 4,142	\$ 4,514	\$ 4,610	\$ 5,125	\$ 5,013
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 4,142	\$ 4,514	\$ 4,610	\$ 5,125	\$ 5,013
Capital Expenditures	763	462	461	364	479
Total Expenditures	\$ 4,905	\$ 4,976	\$ 5,071	\$ 5,489	\$ 5,492
Staffing (FTE)	42.5	42.5	44.5	47.0	47.0



NON-DEPARTMENTAL BUDGET SUMMARY

(Thousands)	2015 Actuals	2016 Actuals	2017 Projection	2018 Budget	2019 Budget
Operating & Non-operating Expenses					
Salaries & benefits	\$ 19,093	\$ 21,009	\$ 23,381	\$ 21,938	\$ 22,836
Pumping power & capacity charges	100,245	96,332	94,928	91,229	89,727
Transmission	5,338	2,119	4,247	6,084	5,816
Amortization & depreciation	42,774	44,615	44,859	48,337	50,228
Interest expense	25,385	24,855	23,574	23,896	24,833
Other expenses	(12,534)	34,057	(5,844)	(8,905)	(8,669)
Total Operating & Non-operating Expenses	\$ 180,301	\$ 222,987	\$ 185,145	\$ 182,579	\$ 184,771
Expenditures by Fund					
Operating & Non-operating Expenses					
General Fund	\$ 186,768	\$ 232,085	\$ 189,938	\$ 185,357	\$ 186,970
CAGR Account	1,216	1,403	1,569	3,121	4,029
Other (see note)	(7,683)	(10,501)	(6,362)	(5,899)	(6,228)
Total Operating & Non-operating Expenses	\$ 180,301	\$ 222,987	\$ 185,145	\$ 182,579	\$ 184,771
Capital Expenditures	8,823	8,632	12,900	6,509	4,858
Total Expenditures	\$ 189,124	\$ 231,619	\$ 198,045	\$ 189,088	\$ 189,629
Vacancy/Salary Savings Equivalent	-	-	(3.5)	(15.0)	(15.0)

Non-Departmental Compared to Total Expenditures





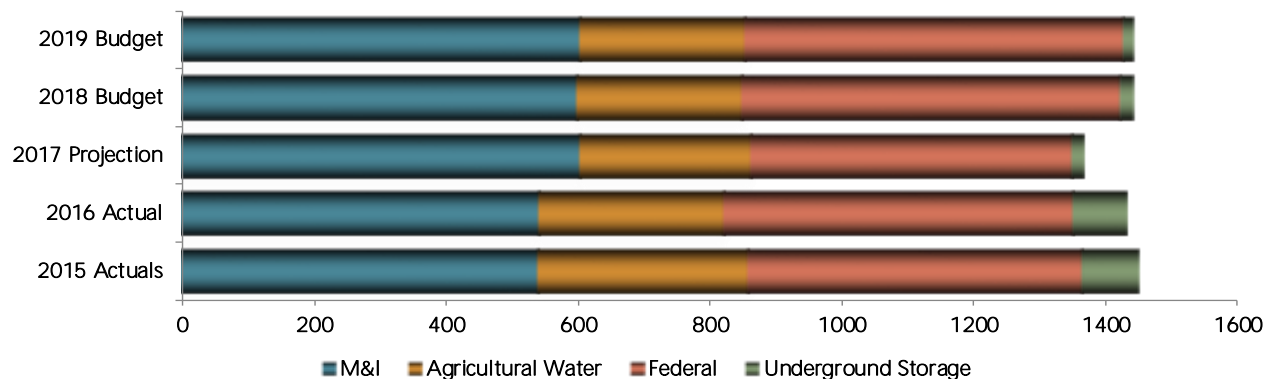
WATER DELIVERIES

(Acre-Feet)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Municipal & Industrial Water					
Subcontract	499,004	504,222	578,440	573,779	577,074
Non-subcontract	39,993	35,866	24,744	25,000	25,000
Temporary water use permits	338	577	620	620	620
Subtotal	539,335	540,665	603,804	599,399	602,694
Agricultural Water					
Settlement pool	318,279	280,745	258,237	250,445	250,445
Excess	-	52	-	-	-
Subtotal	318,279	280,797	258,237	250,445	250,445
Federal Water					
On-reservation	121,626	150,113	132,509	210,167	205,911
Off-reservation	385,751	380,028	353,704	362,839	367,095
Subtotal	507,377	530,141	486,213	573,006	573,006
Interstate Water Banking	-	-	-	-	-
Underground Storage Water					
Direct incentive	4,445	5,100	-	515	327
Direct AWBA	57,444	39,115	-	1,402	-
Indirect incentive	9,433	8,499	1,000	2,023	1,741
Indirect AWBA	12,896	26,593	17,630	13,830	12,407
Subtotal	84,218	79,307	18,630	17,770	14,475
Total water deliveries	1,449,209	1,430,910	1,366,884	1,440,620	1,440,620
Credit transfer to CAGR	8,794	4,995	19,189	14,837	17,084
Total water deliveries with credits	1,458,003	1,435,905	1,386,073	1,455,457	1,457,704

Water Deliveries

(Acre-feet in Thousands)



WATER REVENUE GENERAL FUND

(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
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Water O&M Charges

Municipal & Industrial Water

Subcontract	\$ 72,353	\$ 75,729	\$ 93,435	\$ 92,218	\$ 93,065
Non-subcontract	6,198	5,703	4,009	3,975	4,125
Temporary water use permits	127	414	305	345	345
Subtotal	78,678	81,846	97,749	96,538	97,535

Agricultural Water

Settlement Pool	13,184	12,459	15,915	14,583	15,853
Excess	-	8	-	-	-
Subtotal	13,184	12,467	15,915	14,583	15,853

Federal Water

74,558	79,281	78,538	92,094	92,409
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Interstate Water Banking

-	-	-	-	-
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Underground Storage Water

Direct incentive	689	811	-	82	54
Direct AWBA	8,904	6,219	-	223	-
Indirect incentive	1,462	1,351	162	322	287
Indirect AWBA	1,999	4,228	2,856	2,199	2,047
Water storage tax - AWBA	(8,242)	(11,051)	(1,004)	(325)	(338.0)
Subtotal	4,812	1,558	2,014	2,501	2,050
Total water deliveries	171,232	175,152	194,216	205,716	207,847
Adjustment	(1,450)	-	1,389	-	-
Credit transfer to CAGR	1,323	794	3,109	2,359	2,819
Total water O&M charges	\$ 171,105	\$ 175,946	\$ 198,714	\$ 208,075	\$ 210,666

Capital Charges

M&I subcontractors	\$ 13,672	\$ 14,278	\$ 19,248	\$ 27,941	\$ 29,182
M&I non-subcontractors	2,926	2,764	1,939	2,592	2,658
Agriculture subcontractors (excess)		1	-	-	-
Underground storage facilities	41	-	-	-	-
Total capital charges	\$ 16,639	\$ 17,043	\$ 21,187	\$ 30,533	\$ 31,840

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

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>Firm</u> <u>2018</u>	<u>Advisory</u> <u>2019</u>
<u>Municipal and Industrial</u>					
Long Term Subcontract (B+C) ¹	\$ 157	\$ 161	\$ 164	\$ 160	\$ 165
Non-Subcontract (A+B+C) ²	179	184	195	205	212
Recharge (A+B+C) ³	179	184	195	205	212
<u>Federal</u> (B+C) ⁵	\$ 157	\$ 161	\$ 164	\$ 160	\$ 165
<u>Agricultural</u>					
Settlement Pool (C) ⁶	\$ 75	\$ 76	\$ 77	\$ 65	\$ 68
<u>Agricultural Incentives</u> ⁶					
Meet Settlement Pool Goals	\$ (18)	\$ (15)	\$ (12)	\$ -	\$ -
Meet AWBA/CAGRD GSF Goals	(2)	(2)	(2)	(1)	-
Meet Recovery Goals	(2)	(2)	(2)	(1)	-

RATE COMPONENTS

Units = \$/acre-foot

<u>Capital Charges</u>					
(A) Municipal and Industrial - Long Term Subcontract ⁷	\$ 22	\$ 23	\$ 31	\$ 45	\$ 47
<u>Delivery Charges</u>					
Fixed O&M ⁷	56	59	59	67	\$ 68
"Big R" ⁷	24	24	26	27	\$ 29
Fixed OM&R Rate Stabilization ⁷	2	2	2	1	\$ 0
(B) Fixed OM&R ⁸	\$ 82	\$ 85	\$ 87	\$ 95	\$ 97
(C) Pumping Energy Rate ⁹	75	76	77	65	68
<u>Underground Water Storage O&M</u> ¹⁰					
Phoenix AMA	\$ 9	\$ 10	\$ 12	\$ 13	\$ 14
Tucson AMA	15	15	15	15	15
<u>Underground Water Storage Capital Charge</u> ¹²					
Phoenix AMA	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15
Tucson AMA	9	9	9	9	9

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 Long-term M&I subcontract include those users that hold an M&I subcontract.
- 2 Non-subcontract includes M&I users that are taking water under an agreement other than a subcontract and may also be referred to as "Excess" water. It is administered according to CAP's Access to Excess policy.
- 3 Recharge includes the AWBA, CAGR, BOR and M&I subcontract holders and other Arizona entities who have valid ADWR water storage permits and accrue long-term storage credits. It is administered according to CAP's Access to Excess policy.
- 4 Federal water may also be referred to as "Indian" water.
- 5 Rate is the Pumping Energy Rate 1 component. Board policy is to allow the rate to increase no more than \$4/AF per year. As the energy rate is either less or equal to this amount, there are no incentives starting in 2018.
- 6 For M&I subcontract water, the capital charge is paid on full allocation regardless of amount delivered and not included in delivery rates.
- 7 Fixed OM&R charge consists of Fixed O&M, "Big R" (Water delivery capital, large extraordinary maintenance projects and bond debt service) and Fixed OM&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".
- 8 This rate is collected on all ordered water whether delivered or not.
- 9 The energy rate applies to all actual water volumes as opposed to scheduled.
- 10 Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.
- 11 Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBA for M&I firming, CAGR, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

Units = \$/acre-foot

	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>Firm 2017/18</u>	<u>Advisory 2018/19</u>
<u>Phoenix Active Management Area</u>					
Water & Replenishment Component ¹	\$ 172	\$ 179	\$ 186	\$ 214	\$ 215
Administrative Component ²	45	45	32	36	40
Infrastructure & Water Rights Component ³	294	353	353	353	353
Replenishment Reserve Charge ⁴	63	67	89	101	103
Total Assessment Rate (\$/AF)	\$ 574	\$ 644	\$ 660	\$ 704	\$ 711
<u>Pinal Active Management Area</u>					
Water & Replenishment Component ¹	\$ 155	\$ 160	\$ 175	\$ 204	\$ 204
Administrative Component ²	45	45	32	36	40
Infrastructure & Water Rights Component ³	294	353	353	353	353
Replenishment Reserve Charge ⁴	70	75	96	108	109
Total Assessment Rate (\$/AF)	\$ 564	\$ 633	\$ 656	\$ 701	\$ 706
<u>Tucson Active Management Area</u>					
Water & Replenishment Component ¹	\$ 196	\$ 202	\$ 213	\$ 238	\$ 240
Administrative Component ²	45	45	32	36	40
Infrastructure & Water Rights Component ³	294	353	353	353	353
Replenishment Reserve Charge ⁴	80	85	108	131	132
Total Assessment Rate (\$/AF)	\$ 615	\$ 685	\$ 706	\$ 758	\$ 765
<u>Contract Replenishment Tax - Scottsdale ⁵</u>					
Cost of Water	\$ 166	\$ 179	\$ 184	\$ 195	\$ 220
Cost of Transportation	0	0	0	0	0
Cost of Replenishment	0	0	0	0	0
Administrative Component ⁶	45	45	32	36	40
Total Tax Rate (\$/AF)	\$ 211	\$ 224	\$ 216	\$ 231	\$ 260

ENROLLMENT & ACTIVATION FEES

Units = \$/Housing Unit

Enrollment Fee ⁶	\$ 237	\$ 284	\$ 284	\$ 284	\$ 284
Activation Fee-Minimum ⁷	\$ 235	\$ 282	\$ 282	\$ 282	\$ 282
Activation Fee-Phoenix AMA ⁷	\$ 260	\$ 350	\$ 460	\$ 610	\$ 820
Activation Fee-Pinal Post-2007 ⁷	\$ 260	\$ 350	\$ 460	\$ 610	\$ 820
Activation Fee-Tucson AMA ⁷	\$ 250	\$ 320	\$ 400	\$ 510	\$ 640

ANNUAL MEMBERSHIP DUES

Member Land Annual Membership Dues (\$/Lot) ⁸

Phoenix Active Management Area	\$ 15.45	\$ 20.78	\$ 16.50	\$ 22.63	\$ 27.24
Pinal Active Management Area	\$ 2.05	\$ 2.80	\$ 10.57	\$ 14.88	\$ 18.48
Tucson Active Management Area	\$ 9.87	\$ 13.21	\$ 16.89	\$ 23.58	\$ 28.86

Member Service Area Annual Membership Dues (\$/AF) ⁸

	\$ 23.67	\$ 32.34	\$ 52.68	\$ 74.44	\$ 93.32
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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 at GSFs. 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 and associated with enrollment costs. A \$2/AF has been added to this component to fund the Board's 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. This formula applies with the exception being 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 is included in the Enrollment Fee to help fund CAGRD's conservation program.
- 8 The Activation Fees is 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 (ML) and Member Service Areas (MSA) 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.

PUMPING POWER COSTS

(General Fund)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Energy Purchases (MWH)					
Waddell	43,433	46,860	42,558	44,443	39,899
Hoover B*	142,114	138,679	130,846	131,000	131,000
Navajo	2,438,415	1,340,678	2,009,753	1,898,639	1,799,564
Energy Market Purchases	153,685	1,188,540	473,766	704,765	809,143
Total energy purchases	2,777,647	2,714,757	2,656,923	2,778,847	2,779,606
Energy Rates (\$/MWH)					
Hoover B*	\$ 45.08	\$ 47.25	\$ 56.43	\$ 69.16	\$ 66.96
Navajo	36.76	52.31	36.04	35.24	36.36
Energy Market Purchases	22.70	17.24	18.63	18.37	18.32
Total average energy rates	\$ 36.40	\$ 36.42	\$ 33.91	\$ 32.52	\$ 32.50
Energy Costs (\$000)					
Hoover B*	\$ 6,406	\$ 6,552	\$ 7,383	\$ 9,060	\$ 8,772
Navajo	89,627	70,128	72,436	66,909	65,436
Energy Market Purchases	3,489	20,492	8,828	12,947	14,826
Total pumping plant energy	\$ 99,522	\$ 97,172	\$ 88,647	\$ 88,915.0	\$ 89,034
Energy Shaping & Displacement Revenue	\$ 224	\$ 1,222	\$ 500	\$ 500	\$ 500
Energy scheduling services	1,395	1,764	1,326	1,123	1,183
Energy Balancing Services	1,915	419	1,324	-	-
MWD agreement expense	45	82	105	86	86
Lake Pleasant adjustment	(3,208)	(4,856)	3,800	3,704	2,041
Lake Roosevelt adjustment	352	529	0	-	-
Net pumping energy*	\$ 100,245	\$ 96,332	\$ 95,702	\$ 94,328	\$ 92,843

*Projected Pumping Power costs include the Hoover Capacity Charge and the Hoover Contract Transmission Adjustment



FEDERAL DEBT SCHEDULE

(Thousands)

	2015 Actual	2016 Actual	2017 Projection	2018 Budget	2019 Budget
Sources of Funds					
Navajo-Related Revenues:					
SRP related revenues	\$ 27,124	\$ 27,591	\$ 28,419	\$ 29,271	\$ 30,149
Other NGS net revenues	(10,796)	(17,033)	(8,897)	(7,210)	(7,270)
Shaping & displacement	224	419	500	500	500
Net Revenues - NGS	16,552	10,977	20,022	22,561	23,379
Net Navajo misc. revenues	880	519	150	153	156
Hoover 4.5 mil surcharge	3,230	2,838	3,100	3,100	3,100
Parker-Davis	2,715	2,594	2,700	2,700	2,700
Net CAP transmission revenues	(3,510)	(2,942)	(1,974)	(3,654)	(3,284)
Transmission line loss revenues	1,455	327	500	500	500
Land-related revenues:	-	-	-	-	-
Land use (net)	966	784	1,000	830	840
Land sales (net)	-	-	7	-	1,205
Interest on deposits	835	836	885	886	915
Total Credits Toward Repayment	\$ 23,123	\$ 15,933	\$ 26,390	\$ 27,076	\$ 29,511
Uses of Funds					
Principal	\$ 31,361	\$ 31,361	\$ 32,929	\$ 32,929	\$ 32,929
Interest	25,386	24,364	23,343	22,263	21,182
Gross Payment <i>(Due Jan. 20th following year-end)</i>	\$ 56,747	\$ 55,725	\$ 56,272	\$ 55,192	\$ 54,111
(Net Due) / Excess Funds for Repayment	\$ (33,624)	\$ (39,792)	\$ (29,882)	\$ (28,116)	\$ (24,600)
CAP NGS Energy Reconciliation	7,995	12,047	-	-	-
Net Funds (Due to)/from Federal Government	\$ (25,629)	\$ (27,745)	\$ (29,882)	\$ (28,116)	\$ (24,600)

FEDERAL REPAYMENT OBLIGATION

(Thousands)

Payment Made January 20th	Payment Due			Principal Balance (December 31)		
	Principal	Interest	Total	Interest Bearing	Non-Interest Bearing	Total
2017	31,361	24,364	55,725	\$698,465	\$411,244	\$1,109,709
2018	32,929	23,343	56,272	666,136	410,644	1,076,780
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

Water Delivery O&M Revenue Bonds Series 2016 are secured by a pledge of revenues. The bonds are secured by revenues derived by the District from Fixed O&M and capital replacement charges ("Big R" charges), to the extent attributable to the debt service on the bonds. Pledged revenues do not include any income or moneys derived from taxes or assessments authorized by the Act, Power Revenues, "Big R" charges other than Bond Replacement charges, Rate Stabilization charges or the proceeds or investment income of any bonds of the District, other than the Bonds and Parity Obligations.

The Water Delivery O&M Revenue Bonds Series 2016 may be subject to optional redemption prior to maturity. 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, by the payment of a redemption price equal to the principal amount of each Bond called for redemption plus accrued interest to the date fixed for redemption, but without premium. The Bonds maturing prior to January 1, 2027 will not be subject to redemption prior to their stated maturity dates.

Water Delivery O&M Revenue Bonds Series 2016 have an original maturity amount of \$45,460,000, 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 \$8,848,843 which equates to a total issuance cost of \$54,308,843. Through December 31, 2016, principal of \$1,345,000 has been paid, and \$809,372 of the OIP has been amortized.

REVENUE BONDS, SERIES 2016 - DEBT SERVICE SCHEDULE

Payment Date: January 1st	Principal	Coupon	Interest	Annual Debt Service	Principal Balance
2017	\$1,345,000	2.00%	\$1,954,789	\$3,299,789	\$44,115,000
2018	1,505,000	4.00%	2,118,600	3,623,600	42,610,000
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	-
	\$45,460,000		\$26,676,439	\$72,136,439	

PRO FORMA - CAGRD REVENUE BONDS, SERIES 2018

Bond Component Serial Bonds:					
Maturity Date: January 1	Principal	Coupon	Interest	Annual Debt Service	Principal Balance
2019	\$465,000	5.0%	\$1,508,208	\$1,973,208	\$51,245,000
2020	825,000	5.0%	2,562,250	3,387,250	50,420,000
2021	865,000	5.0%	2,521,000	3,386,000	49,555,000
2022	905,000	5.0%	2,477,750	3,382,750	48,650,000
2023	950,000	5.0%	2,432,500	3,382,500	47,700,000
2024	1,000,000	5.0%	2,385,000	3,385,000	46,700,000
2025	1,050,000	5.0%	2,335,000	3,385,000	45,650,000
2026	1,100,000	5.0%	2,282,500	3,382,500	44,550,000
2027	1,155,000	5.0%	2,227,500	3,382,500	43,395,000
2028	1,215,000	5.0%	2,169,750	3,384,750	42,180,000
2029	1,275,000	5.0%	2,109,000	3,384,000	40,905,000
2030	1,340,000	5.0%	2,045,250	3,385,250	39,565,000
2031	1,405,000	5.0%	1,978,250	3,383,250	38,160,000
2032	1,475,000	5.0%	1,908,000	3,383,000	36,685,000
2033	1,550,000	5.0%	1,834,250	3,384,250	35,135,000
2034	1,630,000	5.0%	1,756,750	3,386,750	33,505,000
2035	1,710,000	5.0%	1,675,250	3,385,250	31,795,000
2036	1,795,000	5.0%	1,589,750	3,384,750	30,000,000
2037	1,885,000	5.0%	1,500,000	3,385,000	28,115,000
2038	1,980,000	5.0%	1,405,750	3,385,750	26,135,000

PRO FORMA - CAGRD REVENUE BONDS, SERIES 2018

Bond Component Serial Bonds:					
Maturity Date: January 1	Principal	Coupon	Interest	Annual Debt Service	Principal Balance
2039	\$2,080,000	5.0%	\$1,306,750	\$3,386,750	\$24,055,000
2040	2,180,000	5.0%	1,202,750	3,382,750	21,875,000
2041	2,290,000	5.0%	1,093,750	3,383,750	19,585,000
2042	2,405,000	5.0%	979,250	3,384,250	17,180,000
2043	2,525,000	5.0%	859,000	3,384,000	14,655,000
2044	2,650,000	5.0%	732,750	3,382,750	12,005,000
2045	2,785,000	5.0%	600,250	3,385,250	9,220,000
2046	2,925,000	5.0%	461,000	3,386,000	6,295,000
2047	3,070,000	5.0%	314,750	3,384,750	3,225,000
2048	3,225,000	5.0%	161,250	3,386,250	0
\$51,710,000			\$48,415,208	\$100,125,208	

Dated Date	06/01/2018	
Delivery Date	06/01/2018	
First Coupon	01/01/2019	
Par Amount	\$51,710,000	
Premium	\$2,417,317	
Production	\$54,127,317	104.675%
Underwriter's Discount	(\$189,024)	(0.366%)
Purchase Price	\$53,938,294	104.309%
Net Proceeds	\$53,938,294	

RECONCILIATION OF OPERATION, MAINTENANCE & REPLACEMENT COSTS

CALCULATION OF FIXED OM&R

	2017		2018		2019	
	Projection	Published Rate	Budget	Published Rate	Budget	Advisory Rate
<i>(Thousands)</i>						
General Fund Operating Expenses	\$ 247,995		\$ 249,422		\$ 259,713	
Less Adjustments:						
Depreciation & Amortization of PSR	\$ (44,859)		(47,890)		(51,001)	
Navajo accretion	-		-		-	
Pumping power and capacity charges	(94,928)		(91,229)		(89,727)	
Underground storage site O&M	(1,351)		(1,858)		(1,373)	
Extra Ordinary Maintenance (part of "Big R")	(5,371)		(1,320)		(8,219)	
New Hoover Contract Transmission Adjustment	(774)		(3,099)		(3,116)	
CAP's Contr toward Ag Forebearance	-		(284)		(296)	
Equipment	-		(323)		-	
NIA Allocation	(52)		(28)		-	
Tucson Reliability Fund contribution	(5,331)		-		-	
Other income	(552)		(648)		(650)	
Inventory Adjustment	(52)		(400)		(400)	
Less Total Adjustments	(153,270)		(147,079)		(154,782)	
Fixed O&M Costs	\$ 94,725	\$ 90,340	\$ 102,343	\$ 98,810	\$ 104,931	\$ 99,269
Pumping Power and capacity charges	94,928		91,229		89,727	
New Hoover Contract Transmission Adjustment	774		3,099		3,116	
Power Adjustment	-		977		960	
Net Shaping & Displacement & Transmission Proceeds	(500)		(500)		(500)	
Total Pumping Power & Capacity Charges Costs	\$ 95,202	\$ 115,685	\$ 94,805	\$ 94,291	\$ 93,303	\$ 98,008

CALCULATION OF RECONCILED WATER RATES

	2017		2018		2019	
	Projection	Published Rates	Budget	Published Rate	Budget	Advisory Rate
Water Delivery Costs <i>(Thousands)</i>						
Fixed O&M Costs	\$ 94,725	\$ 90,340	\$ 102,343	\$ 98,810	\$ 104,931	\$ 99,269
Pumping power & Capacity Charges Costs	95,202	115,685	94,805	94,291	93,303	98,008
Water Deliveries <i>(Acre-Feet)</i>						
Total water deliveries with credits	1,386,073	1,518,683	1,455,457	1,450,000	1,457,704	1,444,000
Take or Pay adjustment	15,000	15,000		15,000	-	15,000
Billed Fixed OM&R Water Volume	1,401,073	1,533,683	1,455,457	1,465,000	1,457,704	1,459,000
Pumping Energy Rate 1 Water Volume	1,386,073	1,518,683	1,455,457	1,450,000	1,457,704	1,444,000
Water Delivery Rate <i>(\$/AF)</i>						
Calculated Fixed O & M Component	\$ 67.61	\$ 59.00	\$ 70.32	\$ 67.00	\$ 71.98	\$ 68.00
"Big R" Component	25.00	26.00	25.00	27.00	25.00	29.00
Rate Stabilization Component	2.00	2.00	1.00	1.00	-	-
Navajo Decommissioning Rate	0.24	0.24	0.26	0.26	0.28	0.28
Pumping Energy Rate 1	68.68	76.76	65.14	64.74	64.01	67.72
Total Water Delivery Rate	\$ 163.53	\$ 164.00	\$ 161.72	\$ 160.00	\$ 161.27	\$ 165.00



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 Government 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.



BOARD POLICIES AND GUIDELINES

Policy Name	Board Approval	Synopsis
CAP Water Allocations		
Water Allocation		<ul style="list-style-type: none"> Federal Register Notice dated March 24, 1983, allocating CAP water Federal Register Notice dated February 5, 1992, allocating CAP water
Procedures for Allocating Excess CAP Water for 2010 – 2014	06/04/09	<p>Establishes:</p> <ul style="list-style-type: none"> maximum pools of excess water for each of the following uses: <ul style="list-style-type: none"> Arizona Water Banking Authority (AWBA) and Central Arizona Groundwater Replenishment District (CAGRD) Replenishment Reserve CAGRD Replenishment Obligation Municipal Industrial and Other
Policy Regarding the Relinquishment & Transfer of CAP Municipal & Industrial (M&I) Subcontract Allocations	09/06/96 11/03/16	<p>Requires:</p> <ul style="list-style-type: none"> 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	<p>Requires:</p> <ul style="list-style-type: none"> CAP to comply with all applicable environmental laws and regulations
CAGRD Conservation Program	03/02/06	<p>Provides for better understanding of the CAGRD by its members and reduction in members' water use. Program components include:</p> <ul style="list-style-type: none"> education partnerships/collaboration study to determine groundwater use efficiency of CAGRD Member Lands (ML) funding

Policy Name	Board Approval	Synopsis
CAP Facilities		
Interstate Off-stream Underground Storage Policy	06/22/00	<p>Provides for:</p> <ul style="list-style-type: none"> 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	<p>Provides for:</p> <ul style="list-style-type: none"> 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	<p>Provides for:</p> <ul style="list-style-type: none"> 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	<p>Provides for:</p> <ul style="list-style-type: none"> 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	<p>Provides for:</p> <ul style="list-style-type: none"> 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 05/06/10	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
CAGR D Annual Membership Dues	04/07/11 11/03/16	Provides methodology and process for establishing annual membership dues for CAGR D Member Lands (ML) and Member Service Areas (MSA)
CAGR D Assessment Rate Setting Policy	04/05/01 06/06/10	Establishes purpose, process and methodology for computing components of CAGR D assessment rates
CAGR D 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 CAGR D.
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
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 CAGR D Annual Reports	03/02/06 11/03/16	Provides for: <ul style="list-style-type: none"> inspection procedures to be followed by CAP when inspecting records of CAGR D water providers record retention requirements for CAGR D water providers

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: <ul style="list-style-type: none"> • 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 [Discussion Paper]	05/18/00	Requires: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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 [Background Paper]	12/05/02 10/02/14	Promotes use of excess CAP water by non-Indian agriculture (NIA) Provides: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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

MANAGEMENT POLICIES

Policy Name	Policy Approved	Synopsis
Administration		
Purchasing	03/02/00 07/25/17	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> standard guidance and reference point regarding signing authorization
Property	06/15/01 08/28/14	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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

Policy Name	Policy Approved	Synopsis
Records and Information Management	05/12/00 08/31/10	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> responsibility for managing risk and protecting CAP from financial harm
Business Meals	05/20/02 11/03/15	Provides: <ul style="list-style-type: none"> guidelines and sets limits for business meals and catering required for business meetings
Extraordinary Event	05/18/09 11/23/16	Establishes: <ul style="list-style-type: none"> special operating procedures that may be implemented by the GM as a result of an extraordinary, emergency event
Media Relations	04/18/11	Identifies: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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	Provides for: <ul style="list-style-type: none"> guidelines and establishes a process to promote and recognize exceptional employee effort that provides immediate and visible recognition for employee contributions

Policy Name	Policy Approved	Synopsis
Overtime	09/20/90 02/09/16	Provides for: <ul style="list-style-type: none"> • scheduling of overtime hours • compensation for overtime hours worked in accordance with Fair Labor Standards Act
Victim's Leave Act	01/14/04 04/29/09	Provides for: <ul style="list-style-type: none"> • time off to attend juvenile and adult criminal court proceedings associated with being a crime victim
Employee Assistance Program	11/01/04	Provides for: <ul style="list-style-type: none"> • 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	Provides for: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • employer paid group term life insurance • employer paid accidental death and dismemberment insurance
Health Benefits	09/20/90 11/29/12	Provides for: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> reimbursement of covered expenses associated with relocating a household for prospective and current employees
Temporary Employee	11/01/04 06/13/17	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> restricted work relationships of grandfathered family members
Discrimination and Harassment-Free Workplace	12/03/98 11/22/16	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> various work schedules that meet the needs of the company, customers and employees
Attendance	03/30/98 11/01/04	Clarifies: <ul style="list-style-type: none"> expectations regarding attendance, punctuality and reliability
Attendance of Headquarters Events	08/13/03 08/17/10	Ensures: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> expectations regarding personal appearance, personal hygiene and appropriate attire
Travel for Training	07/15/02 07/07/14	Provides for: <ul style="list-style-type: none"> flexible scheduling, compensation and other employment conditions while on travel status associated with training
Portal to Portal	03/30/98 11/01/04	Provides: <ul style="list-style-type: none"> expectations regarding travel to and from temporary living accommodations while on travel status
Telecommunications	06/04/10 01/01/12	Provides for: <ul style="list-style-type: none"> management and control of company telephones, cellular phones and smart phones
Email	11/14/02 08/31/10	Provides: <ul style="list-style-type: none"> criteria and parameters for the proper use, preservation, disclosure and disposition of electronic mail generated or received on company computers
Diversity and Inclusion	12/13/10	Provides for: <ul style="list-style-type: none"> CAP's intent to foster an atmosphere of acceptance and support for employees of diverse backgrounds
Vehicle Accident Review	06/27/11	Provides for: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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	Provides for: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • restrictions on tobacco and e-cigarette use in work areas
Safety Incident Review	03/12/03 10/04/10	Provides: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • guidelines for the purchase, storage, distribution, disposal and reporting of hazardous substances used at CAP
Remote Access	10/06/06 04/18/11	Provides: <ul style="list-style-type: none"> • definition of security requirements for connecting to CAP's network from a non-CAP network

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	<p>The following criteria is used to determine whether the cost of an asset is capitalized or expensed:</p> <ul style="list-style-type: none"> • Non-capitalized Expenditures: <ul style="list-style-type: none"> ◊ In general, all expenditures which do not add significantly to the value or utility of an 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: <ul style="list-style-type: none"> ◊ 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 ◊ 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: <ul style="list-style-type: none"> ◆ 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, represent relatively large expenditures, 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)
 - quarterly 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
 - quarterly requires Finance to prepare and present a Quarterly Financial Review for the SMT and the Finance and Audit Committee of the Board
-



WELCOME TO ARIZONA

County Profiles

ARIZONA'S LARGEST EMPLOYERS

Arizona's 5 Largest Government Employers'

Rank		2016 Emp
1	State of Arizona	49,800
2	Arizona State University	15,530
3	City of Phoenix	14,000
4	Maricopa County	13,000
5	Mesa Public Schools	8,500



Arizona's Largest Non Governmental Employers'

Rank		2016 Emp	Rank		2016 Emp	Rank		2016 Emp
1	Banner Health	39,858	16	Target Corp	8,241	33	Southwest Airlines Co	4,439
2	Walmart Stores Inc	34,856	17	Freeport-McMoran Inc	8,030	34	General Dynamic Corp	4,300
3	Kroger Co	16,856	18	Dignity Health	8,000	35	Phoenix Children's Hospital	4,206
4	McDonald's Corp	15,781	19	CVS Health	7,200	36	Lowe's Companies Inc	4,140
5	Wells Fargo & Co	15,071	20	American Express Co	7,079	37	Starbucks Corp	3,904
6	Albertsons Companies	14,490	21	Circle K	6,800	38	Carondelet Health Network	3,860
7	Intel Corp	11,300	22	United Health Care	6,762	39	Boeing Co	3,838
8	HonorHealth	10,600	23	Pinnacle West Capital Corp	6,407	40	TMC Healthcare	3,722
9	American Airlines Group	10,000	24	Mayo Foundation	6,274	41	Macy's Inc	3,700
10	The Home Depot Inc.	10,000	25	Amazon.com Inc	6,000	42	USAA	3,600
11	Honeywell International Inc.	10,000	26	Walgreen Co	5,910	43	Amerco	3,588
12	Bank of America Inc	9,800	27	Apollo Education Group	5,700	44	GoDaddy Inc	3,540
13	Raytheon Co	9,600	28	Salt River Project	5,328	45	Marriott International	3,520
14	JP Morgan Chase & Co	9,500	29	State Farm	5,200	46	Grand Canyon Education Inc	3,500
15	Bashas' Supermarkets	8,525	30	United Parcel Service	5,000	47	Sprouts Farmers Market	3,484
			31	Costco Wholesale Corp	4,804	48	Salt River Gaming Enterprises	3,402
			32	Abrazo Community Health Network	4,490	49	Northern Arizona Healthcare	3,400
						50	IASIS Healthcare Corp	3,392

Maricopa County

County Seat: Phoenix



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.

Maricopa County, Arizona



POPULATION

	1990	2000	2014
Arizona	3,680,800	5,130,632	6,667,241
Maricopa County	2,130,400	3,072,149	4,008,651
<i>Incorporated Cities & Towns</i>			
Phoenix	987,285	1,321,045	1,506,439
Mesa	288,750	396,375	455,567
Chandler	91,310	176,581	249,423
Gilbert	29,810	109,697	235,493
Glendale	148,655	218,812	232,680
Scottsdale	130,885	202,705	225,698
Tempe	142,035	158,625	169,529
Peoria	51,000	108,364	163,839
Surprise	7,150	30,848	123,797
Avondale	16,345	35,883	78,090
Goodyear	6,300	18,911	74,743
Buckeye	5,040	6,537	58,795
Apache Junction	18,175	31,814	37,639
El Mirage	5,010	7,609	32,857
Queen Creek	2,680	4,316	31,767
Fountain Hills	10,115	20,235	23,090
Paradise Valley	11,710	13,664	13,457
Tolleson	4,435	4,974	6,777
Wickenburg	4,530	5,082	6,602
Youngtown	2,540	3,010	6,415
Guadalupe	5,475	5,228	6,084
Litchfield Park	3,310	3,810	5,893
Cave Creek	2,950	3,955	5,354
Carefree	1,675	2,790	3,453
Gila Bend	1,745	1,980	1,960

Arizona Dept. of Administration - population.az.gov

AGE DISTRIBUTION

0-14	21.7 %
15-24	14.1 %
25-44	27.8 %
45-64	23.8 %
65+	12.6 %

U.S. Census, American Community Survey (2013)

DISTANCE TO MAJOR CITIES (FROM PHOENIX)

Tucson	111 miles
Los Angeles	372 miles
San Diego	355 miles
Las Vegas	287 miles

Google

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,105,000	7.0 %
Maricopa County	1,956,284	5.9 %
<i>Incorporated Cities & Towns</i>		
Phoenix	738,605	6.2 %
Mesa	219,555	5.9 %
Chandler	138,101	5.1 %
Gilbert	123,028	4.7 %
Glendale	112,319	6.3 %
Scottsdale	124,135	4.7 %
Tempe	97,623	5.5 %
Peoria	81,672	5.5 %
Surprise	50,305	6.5 %
Avondale	39,601	6.4 %
Goodyear	33,824	6.0 %
Buckeye	22,491	7.4 %
Apache Junction	13,327	9.0 %
El Mirage	14,966	6.9 %
Queen Creek	14,282	4.5 %
Fountain Hills	11,577	5.4 %
Paradise Valley	5,672	2.2 %
Tolleson	2,750	10.9 %
Wickenburg	2,426	6.3 %
Youngtown	2,751	9.0 %
Guadalupe	2,488	12.1 %
Litchfield Park	2,661	2.3 %
Cave Creek	2,653	3.2 %
Carefree	1,466	4.2 %
Gila Bend	758	4.7 %

Arizona Dept. of Administration - laborstats.az.gov

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	367.7	21.2 %
Professional, scientific, & administrative services	222.8	12.8 %
Retail trade	211.8	12.2 %
Arts, entertainment, food & recreation services	170.9	9.9 %
Finance, insurance & real estate	165.2	9.5 %
Manufacturing	139.5	8.0 %
Construction	116.1	6.7 %
Transportation, warehousing, & utilities	88.8	5.1 %
Other services, except public administration	83.2	4.8 %
Public administration	76.5	4.4 %
Wholesale trade	47.1	2.7 %
Information	34.2	2.0 %
Agriculture, forestry, fishing, hunting, & mining	10.7	0.6 %

Arizona Dept. of Administration - laborstats.az.gov

Maricopa County, Arizona



PROPERTY TAX

	Schools	City/Fire	County	Total
Apache Junction (Maricopa County)	6.64%	3.17%	3.88%	13.69%
Avondale	10.08%	1.75%	3.88%	15.71%
Buckeye	9.51%	1.80%	3.88%	15.19%
Carefree	2.35%	0.00%	3.88%	6.23%
Cave Creek	2.35%	1.82%	3.88%	8.05%
Chandler	7.34%	1.18%	3.88%	12.40%
El Mirage	7.20%	3.54%	3.88%	14.63%
Fountain Hills	3.15%	0.12%	3.88%	7.15%
Gila Bend	2.76%	0.29%	3.88%	6.93%
Gilbert	7.28%	1.07%	3.88%	12.22%
Glendale	10.97%	2.15%	3.88%	17.00%
Goodyear	8.09%	1.87%	3.88%	13.84%
Guadalupe	8.87%	0.00%	3.88%	12.75%
Litchfield Park	8.06%	0.00%	3.88%	11.94%
Mesa	7.55%	1.19%	3.88%	12.61%
Paradise Valley	6.86%	1.82%	3.88%	12.56%
Peoria (Maricopa County)	7.35%	1.44%	3.88%	12.67%
Phoenix	11.34%	1.82%	3.88%	17.04%
Queen Creek	6.60%	1.95%	3.88%	12.43%
Scottsdale	4.16%	1.24%	3.88%	9.29%
Surprise	5.63%	0.76%	3.88%	10.27%
Tempe	8.87%	2.44%	3.88%	15.18%
Tolleson	9.11%	3.75%	3.88%	16.73%
Wickenburg	5.55%	1.40%	3.88%	10.83%
Youngtown	7.20%	0.00%	3.88%	11.09%

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	3.00%	0.70%	5.60%	9.30%
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	2.00%	0.70%	5.60%	8.30%
Queen Creek	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	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

Maricopa County, Arizona



CONTACT INFORMATION

Arizona Commerce Authority
Phone: 602-845-1200
Website: www.azcommerce.com

Pinal County Economic Development
Phone: 520-866-6684
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/ed

Town of Fountain Hills
Phone: 480-816-5104
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.paradisvalleychamber.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

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: 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: 480-503-6891
Website: www.gilberted.com

City of Goodyear
Phone: 623-932-3910
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.queen creek.org

City of Scottsdale, Economic Vitality Department
Phone: 480-312-7989
Website: www.ScottsdaleAz.gov

Apache Junction Economic Development
Phone: 480-474-5076
Website: www.ajcity.net

City of Avondale
Phone: 623-333-1000
Website: www.avondale.org

City of Buckeye
Phone: 623-349-8971
Website: www.buckeyeaz.gov

Town of Cave Creek
Phone: 480-488-6611

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: 480-948-7411
Website: www.ci.paradise-valley.az.us

City of Phoenix
Phone: 602-262-5040
Website: www.phoenix.gov

Queen Creek Chamber of Commerce
Phone: 480-888-1709
Website: www.queen creekchamber.org

City of Surprise
Phone: 623-222-3326
Website: www.surpriseaz.gov

City of Tempe
Phone: 480-350-4311
Website: www.tempe.gov

Town of Wickenburg
Phone: 928-668-0524
Website: www.wickenburgaz.org

Town of Youngtown
Phone: 623-933-8286
Website: www.youngtownaz.org

Downtown Tempe Community,
Inc.
Phone: 480-921-2300
Website: www.downtowntempe.com
Wickenburg Chamber of Commerce
Phone: 928-684-5479
Website: www.wickenburgchamber.com

City of Tolleson
Phone: 623-936-7111
Website: www.tollesonaz.org

Wickenburg Regional Economic
Development Partnership
Phone: 928-684-7700
Website: <http://www.wredp.com/>

County Profile for

Pima County

County Seat: Tucson

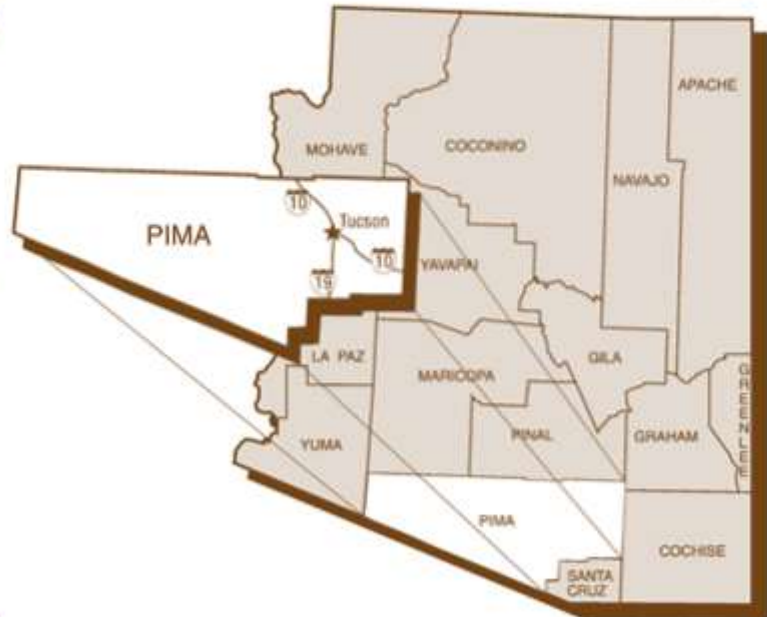


Pima County, the second-largest of the four original counties, was created in 1864 and included approximately all of southern Arizona acquired from Mexico by the Gadsden Purchase. Settlement of the region goes back to the arrival in the 1690s of the Spanish who encountered Native Americans already living 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 Agustín 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.



Pima County, Arizona



POPULATION

	1990	2000	2014
Arizona	3,680,800	5,130,632	6,667,241
Pima County	668,500	843,746	1,007,162
<i>Incorporated Cities & Towns</i>			
Tucson	408,740	486,699	529,336
Oro Valley	7,015	29,700	42,190
Marana	2,320	13,556	40,342
Sahuarita	1,629	3,242	27,476
South Tucson	5,095	5,490	5,751

Arizona Dept. of Administration - population.az.gov

AGE DISTRIBUTION

0-14	18.7 %
15-24	15.3 %
25-44	24.3 %
45-64	25.5 %
65+	16.1 %

U.S. Census, American Community Survey (2013)

DISTANCE TO MAJOR CITIES (FROM TUCSON)

Phoenix	111 miles
Los Angeles	488 miles
San Diego	410 miles
Las Vegas	409 miles

Google

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,105,000	7.0 %
Pima County	461,806	6.2 %
<i>Incorporated Cities & Towns</i>		
Tucson	249,870	6.5 %
Oro Valley	17,962	5.5 %
Marana	19,253	4.9 %
Sahuarita	11,315	5.6 %
South Tucson	2,453	13.1 %

Arizona Dept. of Administration - laborstats.az.gov

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	107.3	25.9 %
Retail trade	48.6	11.7 %
Professional, scientific, & administrative services	47.6	11.5 %
Arts, entertainment, food & recreation services	46.6	11.2 %
Manufacturing	30.6	7.4 %
Public administration	27.8	6.7 %
Construction	25.9	6.2 %
Other services, except public administration	22.6	5.4 %
Finance, insurance & real estate	22.4	5.4 %
Transportation, warehousing, & utilities	16.8	4.1 %
Wholesale trade	7.3	1.8 %
Information	7.0	1.7 %
Agriculture, forestry, fishing, hunting, & mining	4.4	1.1 %

Arizona Dept. of Administration - laborstats.az.gov

PROPERTY TAX

	Schools	City/Fire	County	Total
Marana	6.28%	0.00%	7.75%	14.03%
Oro Valley	5.85%	0.00%	7.75%	13.60%
Sahuarita	7.34%	0.00%	7.75%	15.09%
South Tucson	7.56%	0.25%	7.75%	15.56%
Tucson	7.56%	1.46%	7.75%	16.77%

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Marana	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	2.00%	0.50%	5.60%	8.10%

Arizona Dept. of Revenue & Arizona Tax Research Association

County Profile for

Pima County, Arizona



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.maranaaz.gov

Pima County Economic Development
Phone: 520-724-8126
Website: www.webcms.pima.gov

Marana Chamber of Commerce
Phone: 520-682-4314
Website: www.marana-chamber.com

Town of Oro Valley
Phone: 520-229-4735
Website: www.orovalleyaz.gov

Town of Sahuarita
Phone: 520-822-8818
Website: www.sahuaritaaz.gov

City of South Tucson
Phone: 520-792-2424
Website: www.southtucson.org

City of Tucson
Phone: 520-791-4204
Website: <http://cms3.tucsonaz.gov>

Pinal County

County Seat: Florence



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.

Pinal County, Arizona



POPULATION

	1990	2000	2014
Arizona	3,680,800	5,130,632	6,667,241
Pinal County	116,800	179,727	396,237
<i>Incorporated Cities & Towns</i>			
Casa Grande	19,175	25,224	50,821
Maricopa			46,708
Apache Junction	18,175	31,814	37,639
Florence	7,525	17,054	26,828
Eloy	7,235	10,375	16,531
Kearny	2,265	2,249	1,989
Mammoth	1,845	1,762	1,451
Coolidge	6,945	7,786	12,027
Superior	3,470	3,254	2,869

Arizona Dept. of Administration - population.az.gov

AGE DISTRIBUTION

0-14	22.0 %
15-24	12.0 %
25-44	27.6 %
45-64	23.3 %
65+	15.1 %

U.S. Census, American Community Survey (2013)

DISTANCE TO MAJOR CITIES (FROM FLORENCE)

Phoenix	61 miles
Tucson	70 miles
Los Angeles	435 miles
San Diego	380 miles
Las Vegas	356 miles

Google

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,105,000	7.0 %
Pinal County	151,645	7.2 %
<i>Incorporated Cities & Towns</i>		
Casa Grande	21,380	7.5 %
Maricopa	22,273	6.5 %
Apache Junction	13,327	9.0 %
Florence	3,170	8.3 %
Eloy	3,652	12.2 %
Kearny	967	2.7 %
Mammoth	655	8.1 %
Coolidge	4,941	7.3 %
Superior	1,132	6.6 %

Arizona Dept. of Administration - laborstats.az.gov

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	27.1	20.3 %
Retail trade	16.2	12.2 %
Manufacturing	13.1	9.9 %
Arts, entertainment, food & recreation services	12.9	9.7 %
Public administration	12.0	9.0 %
Professional, scientific, & administrative services	11.9	8.9 %
Construction	9.0	6.8 %
Finance, insurance & real estate	8.9	6.7 %
Transportation, warehousing, & utilities	6.3	4.7 %
Other services, except public administration	5.5	4.1 %
Agriculture, forestry, fishing, hunting, & mining	5.1	3.8 %
Information	2.8	2.1 %
Wholesale trade	2.6	2.0 %

Arizona Dept. of Administration - laborstats.az.gov

PROPERTY TAX

	Schools	City/Fire	County	Total
Apache Junction (Pinal County)	6.64%	3.41%	7.05%	17.10%
Casa Grande	6.70%	1.63%	7.05%	15.38%
Coolidge	6.04%	1.85%	7.05%	14.94%
Eloy	9.13%	1.15%	7.05%	17.33%
Florence	7.20%	1.12%	7.05%	15.37%
Kearny	3.23%	1.99%	7.05%	12.27%
Mammoth	5.86%	2.40%	7.05%	15.30%
Maricopa	6.68%	7.48%	7.05%	21.21%
Superior	7.12%	7.02%	7.05%	21.18%

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Apache Junction (Pinal County)	2.40%	1.10%	5.60%	9.10%
Casa Grande	2.00%	1.10%	5.60%	8.70%
Coolidge	3.00%	1.10%	5.60%	9.70%
Eloy	3.00%	1.10%	5.60%	9.70%
Florence	2.00%	1.10%	5.60%	8.70%
Kearny	3.00%	1.10%	5.60%	9.70%
Mammoth	2.00%	1.10%	5.60%	8.70%
Maricopa	2.00%	1.10%	5.60%	8.70%
Superior	4.00%	1.10%	5.60%	10.70%

Arizona Dept. of Revenue & Arizona Tax Research Association



CONTACT INFORMATION

Arizona Commerce Authority
Phone: 602-845-1200
Website: www.azcommerce.com

Pinal County Economic Development
Phone: 520-866-6664
Website: pinalcountya.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.florenceopportunities.com

Town of Mammoth
Phone: 520-487-2331

Town of Superior
Phone: 520-689-5752
Website: www.superior-arizona.com

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.eloyaz.gov

Town of Kearny
Phone: 520-363-5547
Website: www.townofkearny.com

City of Maricopa
Phone: 520-568-9098
Website: www.maricopa-az.gov
Superior Chamber of Commerce
Phone: 602-625-3151
Website: www.superiorarizonachamber.org

Apache Junction Economic Development
Phone: 480-474-5076
Website: www.ajcity.net
City of Casa Grande
Phone: 520-421-8600
Website: ThinkCasaGrande.com

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

Maricopa Chamber of Commerce
Phone: 520-568-9573

An illustration of a desert landscape. In the foreground, a wooden sign with a white face is mounted on two posts. The sign has the text "Now Leaving Arizona" written on it in a blue, sans-serif font. To the left of the sign is a green saguaro cactus with two arms. The ground is orange and cracked. In the background, there are rolling hills and a large, pale yellow sun or moon in a teal sky. The entire illustration is framed by a thick orange border.

Now
Leaving
Arizona

GLOSSARY

9(D) DEBT

A debt owed to the federal government related to 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 measurement. One acre-foot of water will cover 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. An acre-foot is enough water to meet the needs of three average families for one year.

ACTIVE MANAGEMENT AREA (AMA)

A geographical region in Arizona subject to regulation under the Groundwater Management Act. Five active management areas currently exist in the State.

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

ADDITIONAL RATE COMPONENT (ARC)

A supplemental charge on power from the NGS (surplus to the needs of the CAP) which is collected to recover funds advanced by the CAWCD for the construction of New Waddell Dam.

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

AGRICULTURAL WATER

Water sold to irrigation districts and farmers for agricultural purposes.

AGRICULTURAL WATER USE

Water applied to two or more acres of land to produce plants or parts of plants for sale for human consumption or for use as feed for livestock, range livestock or poultry.

AMA

Active Management Area

AMORTIZATION

The repayment of a loan by installments.

AMPUA

Arizona Municipal Power Users Association

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.

ARC

Additional Rate Component

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 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

BART

Best Available Retrofit Technology

BIA

Bureau of Indian Affairs

“BIG R”

Major repairs and replacements of capital equipment.

BOR

Bureau of Reclamation

BUREAU OF RECLAMATION (BOR, USBR, BUREAU OF 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 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 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. If the expenditure maintains the original condition of the asset or maintains a given level of service, it is classified as an operating expense.

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 in 1993 to replenish groundwater in Pima, Pinal and Maricopa counties.

CAGRD's purpose is to provide a mechanism for water providers and landowners to demonstrate an Assured Water Supply. The CAWCD operates the CAGRD.

CENTRAL ARIZONA PROJECT (CAP)

A 336-mile long water conveyance system built to carry water from the Colorado River to central and southern Arizona. 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 appropriate reimbursable share of construction costs.

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 life.

DESALINATION

Specific treatment processes to demineralize sea water or brackish (saline) water for use.

DGM

Deputy General Manager

DISPLACEMENT (ENERGY)

The process whereby energy available for CAP pumping is sold at a location with a higher market price (e.g., McCullough) and replacement energy is purchased at a location with a lower market price (e.g., West Wing), resulting in a net revenue gain while still meeting CAP water deliveries.

EFFLUENT

Water that has been collected in a sanitary sewer for subsequent treatment in a facility that is regulated as a sewage system, disposal plant or wastewater treatment facility. Such water remains effluent until it acquires the characteristics of groundwater or surface water.

EIS

Environmental Impact Statement

ELIMINATION

An accounting method used to simplify the consolidated financial statement of affiliated companies. It removes 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.

ENTERPRISE RESOURCE PLANNING SYSTEM (ERP)

An integrated information management system.

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

The remaining water available to non-subcontractors after long-term subcontractors have submitted their water delivery schedules.

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. An encumbrance is not an expenditure. An encumbrance is a commitment of funds for future expenditures.

EXTRAORDINARY MAINTENANCE PROJECT

Repair or maintenance to an existing facility that has a cost of \$2,000,000 or more and maintains the original condition or level of utility. These expenses are not reoccurring annual maintenance costs, but out-of-the-ordinary maintenance which occurs infrequently.

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.

FAP COMMITTEE

Finance, Audit & Power Committee, a Board established committee comprised of appointed directors.

FERC

Federal Energy Regulatory Commission

FEDERAL WATER

Water used for federal purposes (e.g., Indians, 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. Those assets that are capitalized and depreciated over a period of time.

FTE

Full-Time Equivalent

FULL-TIME EQUIVALENT (FTEs)

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.

FUND BALANCE

The difference between assets and liabilities. Also referred to as “net position.”

GAAP

Generally Accepted Accounting Principles

GASB

Government 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

GM

General Manager

GROUNDWATER

Water that has seeped beneath the earth's surface is stored in aquifers and is drawn to the earth's surface through wells.

GROUNDWATER REPLENISHMENT DISTRICT

A district established as a special taxing district to develop, store, augment, conserve, replenish, or otherwise increase water supplies for the benefit of the district members.

GROUNDWATER SAVINGS FACILITY (GSF)

Water exchange program where surface water is delivered to a water user traditionally reliant upon groundwater. The surface water delivery replaces the use of groundwater, so 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, located at Hoover Dam, 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. The revenues generated from this surcharge are credited to the Lower Colorado River Basin Development Fund and used to offset the District's annual 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 category 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 the CAP.

LRFP

Long Range Financial Plan

LSCR

Lower Santa Cruz Recharge Project

M&I

Municipal and Industrial

MAINTENANCE EXCELLENCE (ME)

Industry best practice for maintenance.

MASTER REPAYMENT CONTRACT

A contract entered into between the BOR 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 CAGR.

MEMBER SERVICE AREA (MSA)

The service area of a municipal water provider that has met the qualifications for membership in the CAGR.

MISCELLANEOUS WATER

Water used for recreational and fish and wildlife purposes.

MOU

Memorandum of Understanding

MSCP

Multi-Species Conservation Program

MWh

Megawatt hour

NEPA

National Environmental Protection Act

NET POSITION

The difference between assets and liabilities; also referred to as "fund balance."

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

Operation, 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. The operating budget contains approved expenditures (e.g., salaries, materials, travel, services, etc.)

OPERATING PROJECT

A routine project that maintains or restores the original condition or level of utility. The project is classified as an operating expense.

OPERATION, MAINTENANCE, AND REPLACEMENT (OM&R)

Costs incurred for the operation, maintenance, and replacement of the CAP system.

OSHA

Office of Safety and Health Administration

PERMANENT SERVICE RIGHT (PSR)

Represents the District's right to operate and maintain the CAP. Title to the Project remains with the federal government. However, the Master Repayment Contract establishes the District as the entity responsible for ongoing operations and maintenance and the repayment of reimbursable construction costs.

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 bacteriologic 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.

PSR

Permanent Service Right

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.

RECHARGE WATER (UNDERGROUND STORAGE WATER)

Water used to replenish groundwater supplies either directly through delivery of water to an existing recharge project or indirectly by delivering water in lieu of pumping water from the ground.

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 and 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.

RESERVED ENERGY

The energy that CAP reserves for its operational use.

REVENUE BOND

A type of bond that is backed only by the revenues from a specific source.

RIPARIAN RIGHT

A water right based on the ownership of land bordering a river or waterway.

SCADA

Supervisory Control and Data Acquisition

SHAPING (ENERGY)

The process of shifting CAP pumping activity in time to allow for the sale of energy when prices are higher and the purchase of replacement energy when prices are lower, resulting in a net revenue gain while still meeting CAP water deliveries.

SHORTAGE

A situation when Lake Mead falls below specified levels and results in reduced deliveries.

SMRP

Superstition Mountains Recharge Project

SMT

Senior Management Team

SO₂

Sulfur Dioxide

SOP

Standing Operating Procedures

SRP

Salt River Project

STANDARD OPERATING PROCEDURES (SOP)

A comprehensive single-source document covering all aspects of operation and maintenance and emergency procedures. Its purpose is to ensure adherence to approved operating procedures.

STORAGE CAPACITY

The maximum volume of water that can be impounded by a reservoir when there is no discharge of water.

STORAGE FACILITY

A groundwater savings facility or an underground storage facility.

STORED WATER

Water that is stored underground for the purpose of recovery pursuant to an underground water storage, savings, and replenishment permit.

STRATEGIC FRAMEWORK

The Strategic Framework reflects the intended direction of a business, providing the purpose, vision, mission, goals and underlying philosophies and strategies necessary to achieve them.

STATE DEMONSTRATION PROJECT

A project for the storage of excess CAP water at an underground storage facility.

STRUCTURAL DEFICIT

The lower Basin states and Mexico are entitled to take about 1.2 million acre-feet more water from the Colorado River each year than it can reliably produce, depleting levels in the major Colorado River reservoirs, Lake Powell and Lake Mead

SUBCONTRACT

Long-term (50 year) contract among the CAWCD, BOR 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 slowly draining and decreasing in volume because of pore collapse.

SUCCESSION PLANNING PROGRAM

A systematic process where managers identify, assess and develop their staff to make sure they are ready to assume key roles within the company.

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

Water declared surplus on the Colorado River by the Secretary of the Interior.

SURFACE WATER

Water that remains 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.

TWG

The Working Group

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.

UNDERGROUND STORAGE WATER (RECHARGE WATER)

Water used to replenish groundwater supplies either directly through delivery of water to an existing recharge project or indirectly by delivering water in lieu of pumping water from the ground.

USBR

U.S. Bureau of Reclamation

USF

Underground Storage Facility

USGS

United States Geological Survey

VPP

Voluntary Protection Program is a workplace occupational safety and health designation.

WAPA

Western Area Power Administration

WATER CREDITS

Water stored for use in later years that meets certain eligibility requirements.

WATER O&M CHARGES

Water revenues collected from the various customer categories (agriculture, M&I, federal, and recharge) that offset the expenses associated with the delivery of water.

WATER RIGHTS

A property right to make specific beneficial use of a particular amount of water with a specified priority date.

WATER STORAGE TAX

Tax levied under ARS § 48-3715 and authorizes CAP to levy a Water Storage tax, currently up to 4 cents per \$100 as assessed valuation.

WATER TABLE

The top of the water surface in the saturated part 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 treat and/or convey water that is owned by the receiving agency.

YDP

Yuma Desalting Plant



Canal at Burnt Mountain



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