

CENTRAL ARIZONA PROJECT

2022 | 2023
BIENNIAL

Budget

YOUR WATER • YOUR FUTURE

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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 2022 / 2023 Biennial Budget in one cohesive document. The budget document includes the following sections:



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

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

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

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

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

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

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

FINANCIAL PLANNING & CONTROLS

This section provides a comprehensive overview of the District's financial planning and controls. It includes a detailed description of the District's financial planning process, which involves the preparation of the annual budget, the monitoring of actual performance against the budget, and the adjustment of the budget as needed. The section also describes the District's internal controls system, which is designed to ensure the accuracy and reliability of the financial information.



CAPITAL PLANNING

This section provides a comprehensive overview of the District's capital planning process. It includes a detailed description of the District's capital planning process, which involves the identification of capital needs, the preparation of the capital budget, and the monitoring of actual performance against the capital budget. The section also describes the District's capital improvement program, which is designed to ensure the long-term sustainability of the District's infrastructure.



CAP - Table of Organization





TO OUR BOARD, CUSTOMERS AND CONSTITUENTS



The 2022/2023 Biennial Budget is the ninth budget we have prepared since the Central Arizona Water Conservation District (CAWCD or District) Board of Directors adopted a two-year financial planning cycle. The two-year process allows the Board and staff to concentrate primarily on the budget during the odd years; and address strategic planning, water rates, reserves, and financing strategies in the even years. Each part of the cycle complements the work done in the other year. 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.

2020 and 2021 were unusual years for CAP, and the world, to say the least. For 15 months, our administrative staff worked remotely during the COVID-19 pandemic, while our field crews worked modified shifts to allow for social distancing. Our mantra during this time was to "keep the water flowing and keep our employees safe." Well, we did just that. The pandemic challenged our staff in ways we could not have imagined, but from the outside, you'd never know it. Their dedication and professionalism under incredible stress was inspiring and CAP was able to not only execute its mission during the pandemic, but to adapt and innovate as well.

One such innovation was the creation of our new Strategic Plan, a process that began before the pandemic but continued remotely until our Board finalized the newest version. The new 2022 Strategic Plan is the basis for the 2022/2023 Biennial Budget. It identifies the strategic issues, objectives, and associated action plans that are critical to carrying out our mission. These action plans are organized under eight Key Result Areas (KRAs):

- Water Supply
- Power
- Project Reliability
- Finance
- Public Trust, Partnerships, and Leadership
- Stewardship and Sustainability
- Groundwater Replenishment
- Workforce

Finalized in 2019, the Drought Contingency Plan (DCP) was designed to create voluntary reductions in Colorado River diversions in response to the ongoing drought in the western United States. Under DCP, 2022 will be the first year that the Colorado River Basin States face a Tier 1 shortage. Given Arizona's junior status on the river, much of the ensuing reduction will fall on CAP. As a result, the Water Supply KRA will receive more outside attention than ever before.

In 2022, Arizona will face a reduction of 512,000 acre-feet. This amount represents just under 1/3 of what has been available to CAP historically and will fall largely on agricultural customers in central and southern Arizona. The bad news is that the region remains in the midst of a two-decade drought. Fortunately, the 2019 Drought Contingency Plan requires additional consultation and coordination as the drought intensifies.



The Water Supply KRA is focused on protecting CAP water supplies. Addressing volatility of energy market is the focus of the Power KRA. CAP has successfully emerged from the decommissioning of its primary source of energy, Navajo Generating Station, by participating in the energy markets. Recent power system events have caused higher prices and volatility in the energy markets.



For the more static base load portion of CAP's energy needs, CAP has entered into several contracts of varying lengths to lock in availability and rates. These contracts include a 5-year Power Purchase Agreement (PPA) that ends in 2024 for the purchase of up to 35 megawatts (MW) from the fleet of generation resources within SRP and at rates that are tied to the natural gas index, a PPA for the energy generated from the AZ Solar 1 site at a flat rate for 20-years (ending in 2040), and a PPA for the expansion of the AZ Solar 1 site with 20 MW of capacity, with 60 megawatt hours (MWh) of battery storage, that will come online in 2023 and provide energy at a set rate for the 20-year term. We also have an existing 50-year contract for up to 162 MW of capacity and associated energy from Hoover Dam that does not expire until 2067.



For the more flexible variable load portion, our staff continually monitors the energy market for favorable forward purchases, up to three years in advance, locking in price certainty for our customers. Another tool we have is to schedule our pumping to off-peak hours whenever possible, to avoid the peak and super-peak pricing. Because we have flexibility on when to pump water, CAP has the ability to manage energy costs. That being said, the energy market is hardening after separate severe power system events in California and Texas over the last year. These events brought uncertainty to the market, which must now be priced in to forward-purchase products. As a result, much of CAP's energy has already been locked-in for 2022, but starting in 2023, there may be a considerable spike in the energy rate if the current pricing structure persists.



The Project Reliability KRA seeks to provide reliable and cost-effective operations, maintenance, and replacement of CAP infrastructure, including its technology assets. As our infrastructure ages, our staff continue to evaluate end-of-life options, including replacement-in-kind, upgrades, and new alternatives. CAP has also elevated its focus on Information Security, given the large number of high-profile cyber attacks that have occurred recently. Because CAP is considered critical infrastructure, our physical and information assets must be protected with every tool we can muster.

The Finance KRA continues to be a driver in many of our decisions. When evaluating alternatives for

operating the CAP, staff must always consider the financial implications, not just for our customers, but for our taxpayers as well. In the past two years, we have tried to make the rate-setting process as transparent as possible by soliciting customer feedback at roundtable discussions and then incorporating their feedback into staff recommendations. One major outcome of these conversations was to start applying current-year tax revenues (as determined by the Board) toward Federal Repayment two years in advance. Our Municipal and



Industrial (M&I) customers are then able to know their Capital Charge obligations ahead of their own rate-setting and tax cycles.

The Public Trust, Partnerships, and Leadership KRA is all about engaging the public and trying to balance the competing needs among customers, taxpayers, and stakeholders. Over the past two years, CAP staff members have been working to establish a series of Joint Coordination Meetings with our municipal partners to gain a mutual understanding of underlying priorities. We have pioneered new ways of soliciting the public's feedback, including electronic blue cards (comment cards) at our public meetings. We continued to evaluate

other potential outreach options, including exploring how a visitor center may help our constituents understand the influence CAP has on their daily lives.

Given the challenges outlined above, it would be easy for CAP staff to focus solely on ways to conserve what we have, but that would do a disservice to our customers. We strive to do more with less. The Stewardship and Sustainability KRA not only focuses on supporting programs like the Multi-Species Conservation Program and reducing CAP's carbon footprint, but it also allows us to look for strategic partnerships that support sound water management, including wheeling of non-project water through the CAP system. Once all the environmental impacts have been assessed, CAP expects to be able to deliver alternative sources of water throughout its system.

The Central Arizona Groundwater Replenishment District (CAGRD) resides within CAP and as a result, the Board felt it needed its own KRA: Groundwater Replenishment. The CAGRD engages the public to educate



them regarding the impacts of groundwater pumping and the need for replenishment. It also has a statutory obligation to provide replenishment options for its member areas. As a result of the diligent work of water acquisition staff, including completion of a historic transaction with the Gila River Indian



LOWER COLORADO RIVER MULTI-SPECIES CONSERVATION PROGRAM (MSCP)



Community in 2019, the CAGR is strongly positioned to meet its obligations into the future.

Finally, the Workforce KRA focuses on recruiting, retaining, training, and equipping our staff to ensure that CAP is a premier employer. Emerging from the COVID-19 pandemic, we learned that our staff really are dedicated to keeping the water flowing and keeping their fellow employees safe. The demands placed on them were tremendous, but at every turn, CAP's incredible staff answered the call. We must continue to evaluate the market to ensure that our salaries, benefits, training programs, and culture attract a skilled and diverse workforce.

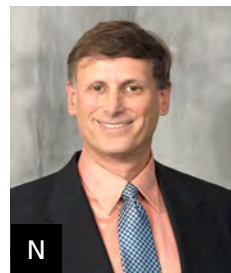
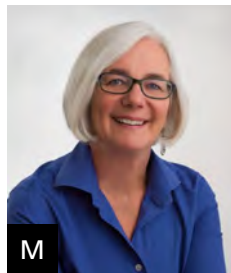
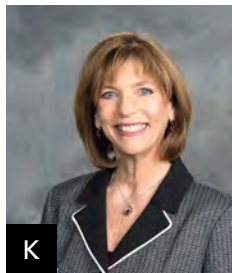
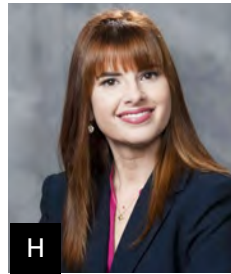
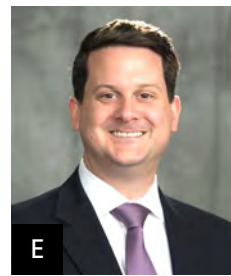
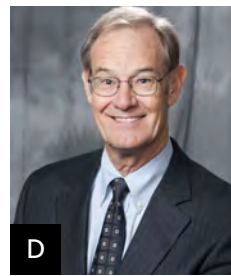
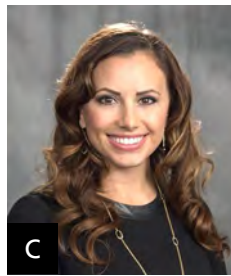
We take pride in this publication and are pleased to share this latest edition with all of you. I'd like to extend a special thanks to our finance and accounting staff, who assembled much of this document remotely, while CAP was still under COVID-19 protocols. Their professionalism and dedication during this process is just one example of how CAP rallied to keep each other safe while keeping the water flowing. As we emerge from this unprecedented challenge, we are faced with a familiar one: drought. I am confident this budget will give us the resources we need to meet this moment.



Theodore C. Cooke

General Manager

THE CAWCD BOARD OF DIRECTORS



Terry Goddard
President



Mark Taylor
Vice President



Alexandra Arboleda
Secretary

Maricopa County

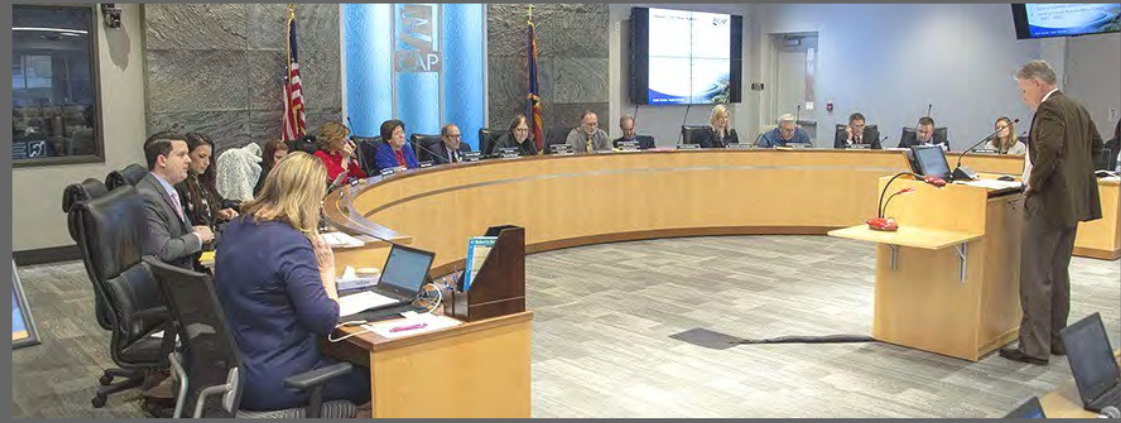
A. Alexandra Arboleda	Term Ending 2022
B. Lisa A. Atkins	Term ending 2024
C. Jennifer Brown	Term ending 2022
D. Terry Goddard	Term ending 2024
E. Benjamin W. Graff	Term ending 2022
F. Jim Holway	Term ending 2022
G. Mark Lewis	Term ending 2022
H. Heather Macre	Term ending 2024
I. Jennifer Martin	Term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

Pima County

K. Karen Cesare	Term ending 2026
L. L.M. "Pat" Jacobs IV	Term ending 2026
M. Marie Pearthree	Term ending 2026
N. Mark Taylor	Term ending 2026

Pinal County

O. Stephen Miller	Term ending 2026
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CAWCD GOVERNANCE

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

EXECUTIVE COMMITTEE

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

FINANCE, AUDIT & POWER COMMITTEE

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

CAGRD & UNDERGROUND STORAGE COMMITTEE

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

PUBLIC POLICY COMMITTEE

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

NOMINATING COMMITTEE

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

SPECIAL COMMITTEES

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

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





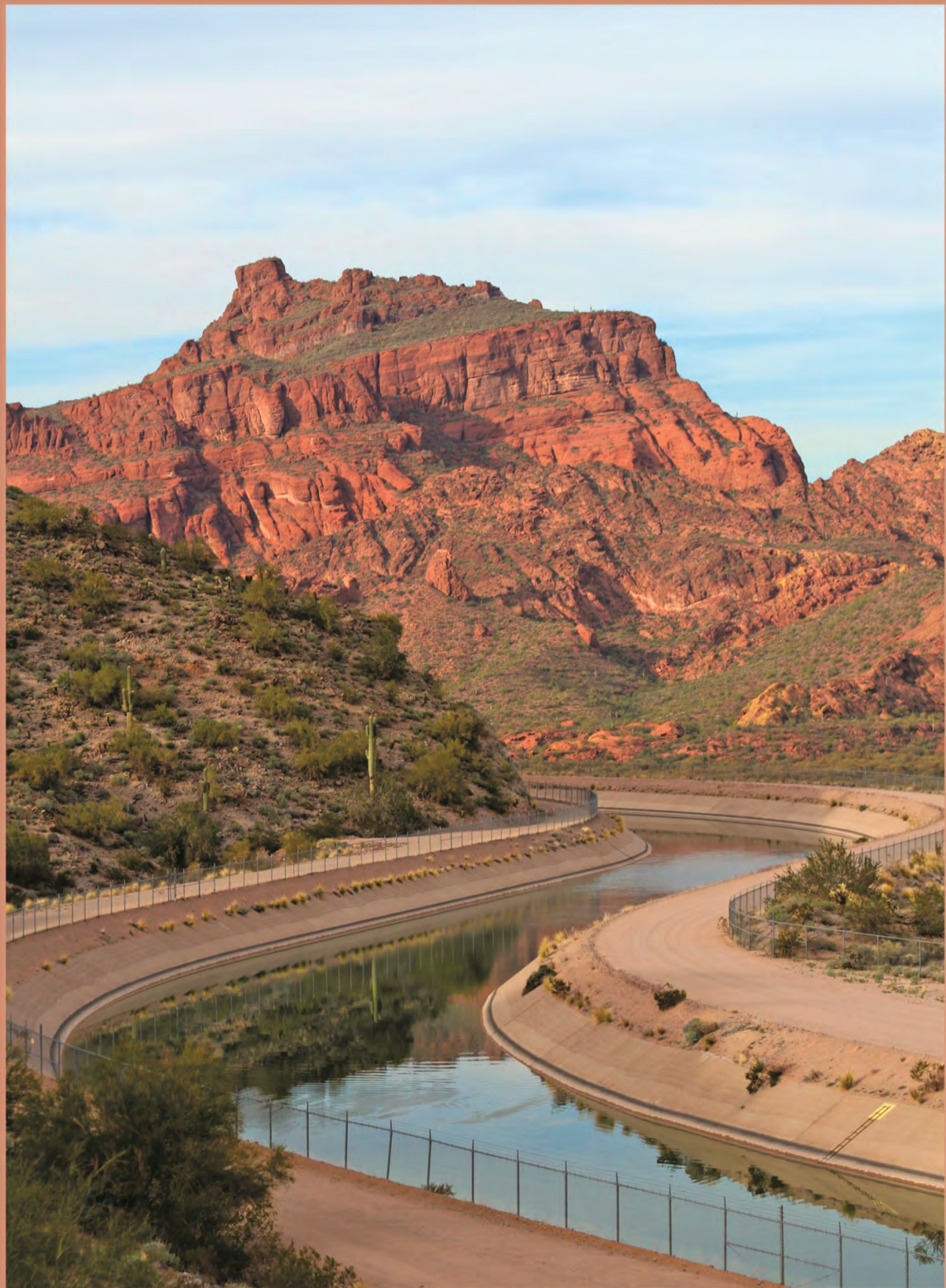
CAP Logo from Headquarters' Board Room

GFOA AWARD



The Government Finance Officers Association (GFOA) of the United States and Canada presented a Distinguished Budget Presentation Award to the Central Arizona Water Conservation District for its Biennial Budget for the Biennium beginning January 1, 2020. 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's dedicated team reliably manages and delivers Colorado River water to Maricopa, Pinal, and Pima Counties

Our Vision

Central Arizona Project serves as a collaborative partner and innovative leader in sustainable management and reliable delivery of water for Central Arizona

Our Values

Teamwork: Working together to reach consensus and achieve common goals

Safety: Keeping coworkers and the workplace safe

Integrity: Doing the right thing with consistency and dedication

Service: Caring for the needs of stakeholders, coworkers, and our community

Professionalism: Delivering superior results

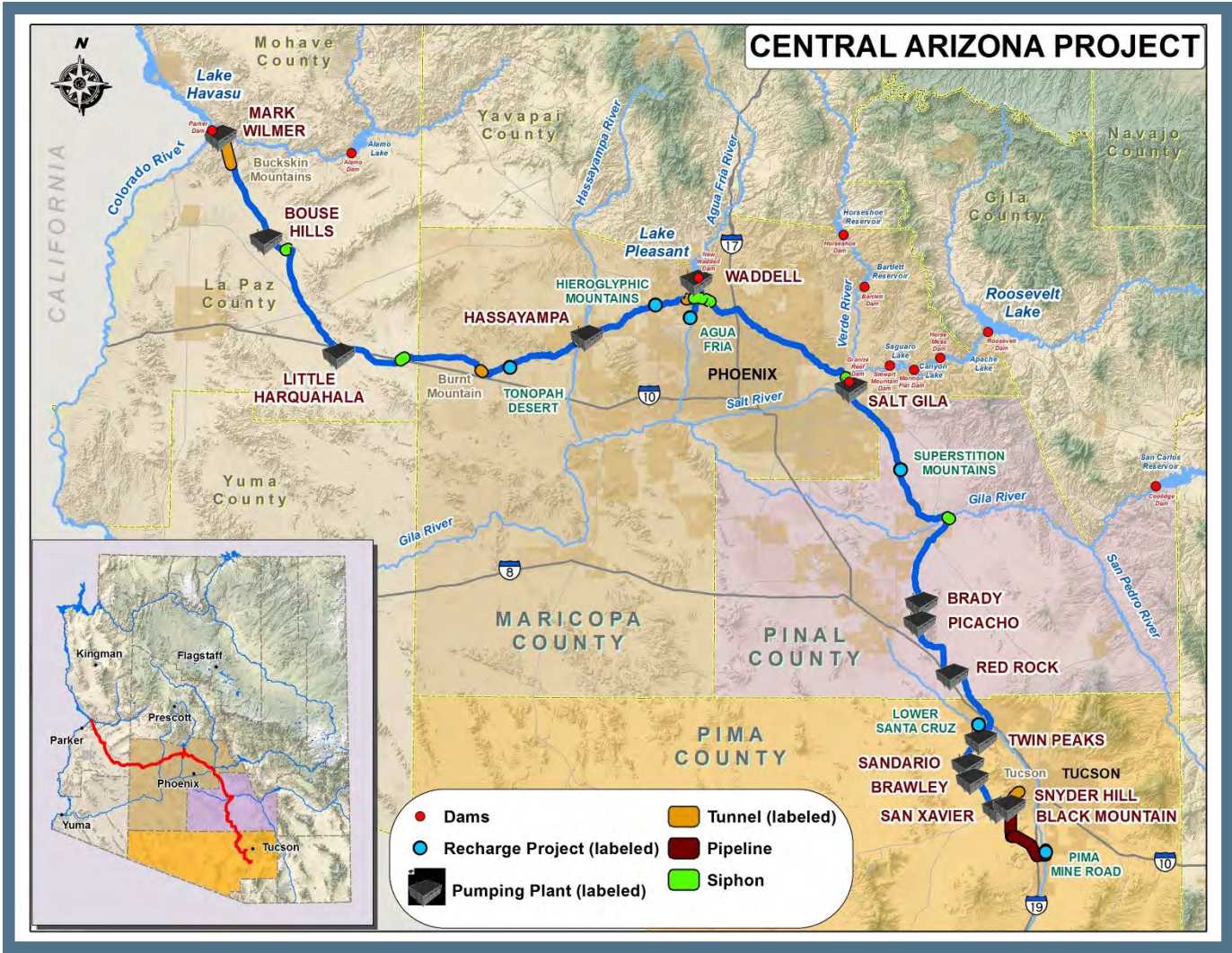
Our Beliefs

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

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



THE CAP SYSTEM



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

CAP PROFILE

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

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 works with the Arizona Department of Water Resources to meet 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.



Salt Gila Pumping Plant—Looking north along Power Road

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

Finally, CAWCD is responsible for repaying the federal government those reimbursable costs associated with the construction of CAP.

Over time, CAWCD's statutory responsibilities have expanded to include authorization to provide groundwater replenishment services through the CAGRDR, and to build, operate and maintain underground storage projects as well as being a recovery agent of stored water.



Mark Wilmer Pumping Plant

CAP HISTORY

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



Lyndon B. Johnson signing CAP Construction bill

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



Early Construction at Mark Wilmer Pumping Plant in Havasu



Early Construction at Mark Wilmer Pumping Plant in Havasu

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

In 1971, CAWCD was created to provide a means for Arizona to repay the federal government for the reimbursable costs of construction

and to manage and operate CAP. Construction began at Lake Havasu in 1973 and was completed 20 years later south of Tucson. The entire project cost approximately \$4 billion to construct.



Tucson Groundbreaking Celebration

CAWCD WATER USERS

Through the CAP system, CAWCD delivers Colorado River water to many different types of customers throughout its three-county service area, encompassing Maricopa, Pima and Pinal counties. CAWCD's expansive service area includes approximately 6.0 million people, roughly 80% of the state's population, and spans 24,000 square miles of land, which is 20% of the state's area.

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



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



AGRICULTURAL (AG) CUSTOMERS

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

	Maricopa	Pima	Pinal	Arizona
2000 Population	3,092,927	848,375	182,435	5,175,581
2010 Population	3,824,058	981,168	376,369	6,401,568
2020 Population	4,439,220	1,052,375	467,932	7,294,587
2055 Projected Population	6,414,083	1,277,075	1,181,033	10,504,530
Percent change projected between 2020 and 2055	44.49%	21.35%	152.39%	50.8%
2020 Labor Force (<i>non-farm</i>)	2,336,776	493,760	192,731	3,566,534
2020 Land Area (<i>square miles</i>)	9,222	9,184	5,374	113,635
2020 Unemployment Rate	6.4%	6.9%	6.5%	6.7%

Based on July 1, 2020 estimates available from the Arizona Commerce Authority (<https://www.azcommerce.com>)

As part of the Arizona Water Settlements Act (AWSA), agricultural users of CAP water relinquished their long-term non-Indian Agriculture allocations in exchange for a limited volume of water reserved for their exclusive use. Commonly referred to as the Ag Settlement Pool, this volume of excess water declines over time, and is the first priority of excess water made available by the CAWCD Board to CAP's agricultural customers through 2030. When available, CAP reserves and makes available a volume of excess water (currently up to 300,000 acre-feet) for specific agricultural customers. The Ag Settlement Pool has historically represented about 20% of CAP deliveries though, due to shortage, reduced amounts are available in 2022 and eliminated in 2023.

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](https://cap-az.com) > [Water >Contracts and Documents > 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 subcontract water.

CAP conducts regular tours and informational meetings to reach out to its M&I water users, and CAP staff members periodically tour city facilities to learn more about their operations and water management.

More information visit: [CAP-AZ.com](https://cap-az.com) > [Water >Contracts and Documents > Allocations](#)



Old Town Downtown Scottsdale





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 allocations are designated for Indian Tribes. This water is used for a variety of purposes, including municipal (i.e., residential), farming, leases to cities and underground storage.

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

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

More information visit: [CAP-AZ.com](https://cap-az.com) > [About](#) > [Tribal Water Rights](#)

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 23 member service areas (MSA) and 1,218 member land (ML) subdivisions representing approximately 297,611 homes.



Pima Mine Road Recharge Site

More information visit: [CAGRDR.com](https://cagrdr.com)



Arizona Housing Developments

WATER PRIORITIES



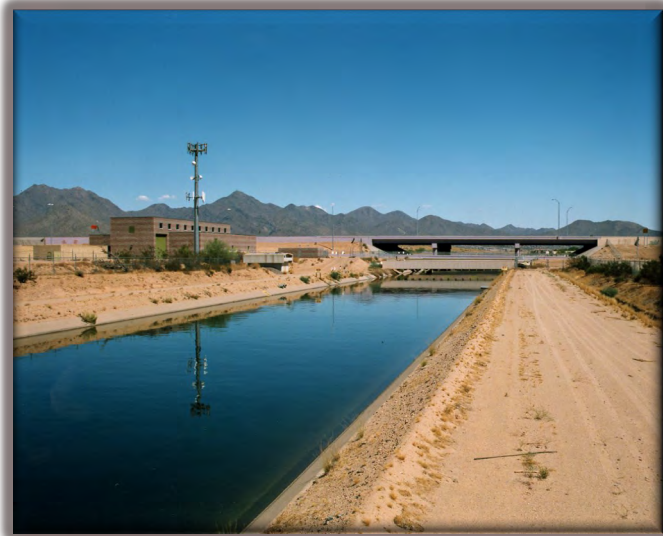
HOW DOES THE SYSTEM WORK?

As with virtually everything related to the Colorado River – access depends on priorities. The Central Arizona Project's right to water on the Colorado River is "junior" to California water users. Under the 2007 Interim Guidelines and the 2019 Drought Contingency Plan, CAP suffers the largest reductions in use. However, within Arizona, CAP has a right to divert water that equal and higher priority users in the state are not using. These concepts are important in order to understand the set of priorities within the CAP priority system.

HOW DID THE PRIORITIES EVOLVE?

To fully understand the CAP priorities system, a brief history review is in order.

After authorization in 1968, CAP construction began in 1973. By the early 1980s, as the first part of construction was nearing completion, decisions were made regarding who would have long-term contract entitlements to CAP water. At that time, long-term contracts were split into three types – municipal and industrial (M&I), Tribal and agricultural.



CAP Canal along Frank Lloyd Wright Blvd - Scottsdale Turnouts and the Loop 101

- M&I subcontracts were issued primarily on the basis of projected future growth and consideration of existing supplies including other water supplies.
- Tribal contracts were the result of a number of federal decisions including Congressionally authorized water settlements.
- Irrigation districts were issued subcontracts for a percentage of the remaining available supply.

In the early years, it was assumed that agriculture would take the largest portion of the available CAP supply as the other users grew into their entitlements. But once the water started



flowing in 1985, reality set in and for many irrigation districts, CAP water was too expensive compared to pumping groundwater. The cost issues came to a head in the early 1990s, which led to a decade of litigation and negotiations, culminating in the 2004 Arizona Water Settlements Act and a reconfiguration of the CAP priority system.

The agricultural entitlements were relinquished by the irrigation districts and converted from percentage of supply to fixed volumes. In exchange for giving up their long-term rights, the irrigation districts were given access to a

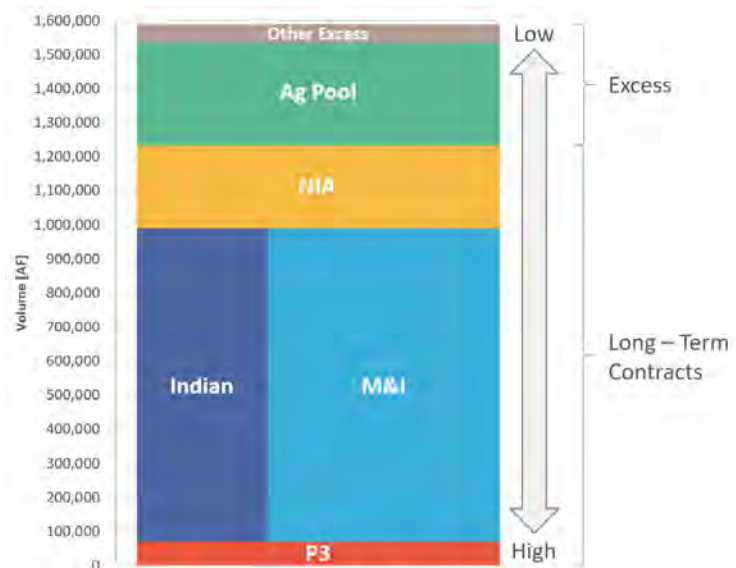
lower-cost fixed volume of even lower priority water. Access to this Agricultural Settlement Pool (Ag Pool) water expires in 2030.

The “Non-Indian Agricultural” (NIA) priority water was then allocated to tribes, cities and towns, and some was held back for future allocation. This term is a head-scratcher for many. But that’s because it relates to the lineage of the term – not to the way it’s used today. NIA refers to water that was originally designated for agriculture use, excluding tribes.

CAP PRIORITY SYSTEM - A REVIEW

The block chart provided on the right is a pictorial representation on how the priority system works. Here’s a quick tutorial on the information being displayed, representing CAP’s internal priority system.

The first thing to note is the “up/down” arrow on the right-hand side with “low” on the top and “high” on the bottom. That means that in this chart, it is better to be closer to the bottom, rather than to the top!



*Based on estimated 2022 orders prior to DCP contributions, system conservation and ICS creation. Includes NIA reallocation water

So, going over the chart from the bottom-up:

LONG-TERM CONTRACTS

P3– This is a small portion of the highest-priority water, termed Third Priority (P3). It shares priority with some of the large irrigation districts in Yuma and elsewhere on the mainstream of the Colorado River.



Indian and M&I – Combined, these pools make up the majority of CAP’s long-term contracts. These pools are depicted side-by-side because they are roughly co-equal in priority. There is also some cross-over in use of these supplies, as some tribes lease water to cities.

NIA – This is the Non-Indian Agricultural pool priority that has been allocated, referenced above, primarily available to cities, industries and Tribes.

EXCESS WATER

Ag Pool– Any water available to CAP after satisfying the long-term contract is termed “Excess Water” and the agricultural districts that gave up their long-term contracts via Board Policy have priority access to it.

Other Excess – Any Excess Water available after satisfying the Ag Pool is classified as Other Excess and historically has primarily been used by the Arizona Water Banking Authority , Bureau of Reclamation for federal firming and the Central Arizona Groundwater Replenishment District for Replenishment Reserve firming.

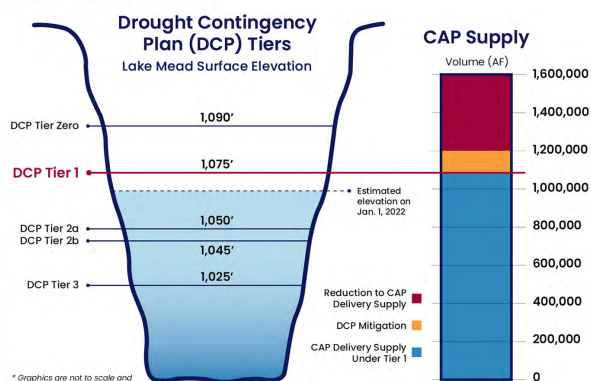
WHY DOES THE CAP PRIORITY SYSTEM MATTER?

There are some differences in cost and other provisions among the priorities, but most importantly, the priorities determine water availability during times of shortage.

In 2020, the Drought Contingency Plan required contributions to Lake Mead. This resulted in a 192,000 acre-foot reduction to CAP supplies. CAP made these required contributions by not delivering “other excess” water and by Intentionally Created Surplus (ICS) creation and conversion of some Ag Pool water.

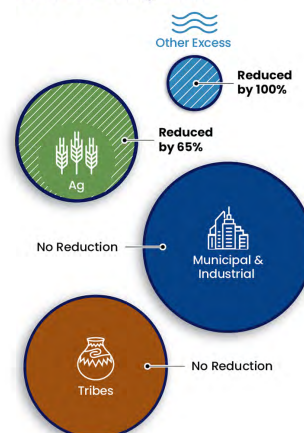
The result of a Tier 1 shortage being declared on the Colorado River is a 512,000 acre feet of combined reductions and required contributions to Lake Mead by CAP. This is more than 30% of the CAP’s historical delivery supply, which significantly affects the next “blocks” down in the chart—the AG Pool and the NIA supply. Some of these impacts will be mitigated based on agreements reached in 2019 in conjunction with the Lower Basin Drought Contingency Plan.

Tier 1 Shortage: CAP Reductions



To learn more, please visit: www.cap-az.com/colorado-river-shortage

2022 Reduction to CAP Users After DCP Mitigation





Colorado River - Havasupai Falls

THE COLORADO RIVER

The Colorado River is the principal water resource diverted for CAWCD and serves as Central Arizona Project water to its customers. CAWCD has recently delivered approximately 1.4 million acre-feet of CAP water to customers in central and southern Arizona annually. Under shortage conditions these deliveries will be reduced in coming years.



Havasupai Falls - Colorado River

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

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



HYDROLOGICAL SCIENCE - IN LANGUAGE FIT FOR A NOVICE OR AN EXPERT

A 2020 article from CAP's Internal Communications - - Know Your Water News - By: DeEtte Person



Whether you're an aspiring hydrologist or a seasoned water manager, there's one reference tool you're going to want on your bookshelf of treasured resources – the new [Colorado River Basin Climate and Hydrology State of the Science Report!](#)

The report was collaboratively funded by CAP and other basin partners – Arizona Department of Water Resources, California's Six Agency Committee, Colorado River Water Conservation District, Colorado Water Conservation Board, Denver Water, Metropolitan Water District of Southern California, New Mexico

Interstate Stream Commission, Southern Nevada Water Authority, Utah Division of Water Resources, Wyoming State Engineer's Office and the U.S. Bureau of Reclamation.

"This document is for anyone to pick up to get a fundamental understanding of the past, current and future climate and hydrology of the Colorado River Basin and how ongoing changes to both are being managed," says Mohammed Mahmoud, PhD, CAP senior policy analyst. "It's also a document that experts can dive into for specific chapters on topics in which they have a keen interest."

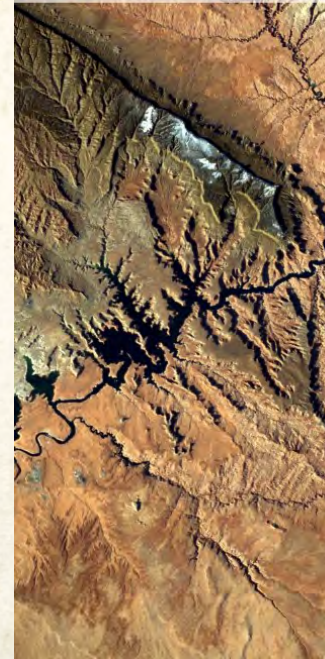
According to the report language, the goal is to "facilitate more accurate short- and mid-term forecasts and more meaningful long-term projections of basin hydroclimate and system conditions."

In other words, it's a reference document for all – the novice who wants a basic understanding and the expert who wants more nuanced information on methods, tools and data. This common frame of reference is critical as stakeholders begin to determine the future of the

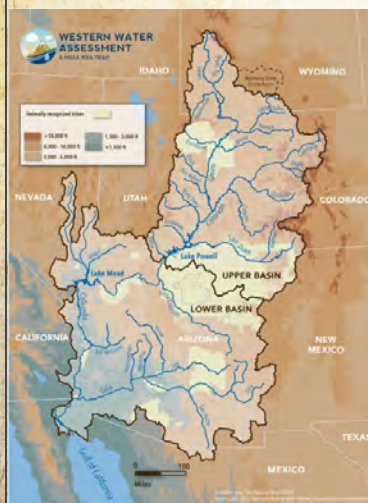
Colorado River Basin in the face of drought and climate change.



Colorado River Basin Climate and Hydrology
State of the Science



In the face of uncertainty, this State of the Science report couldn't have come at a better time!

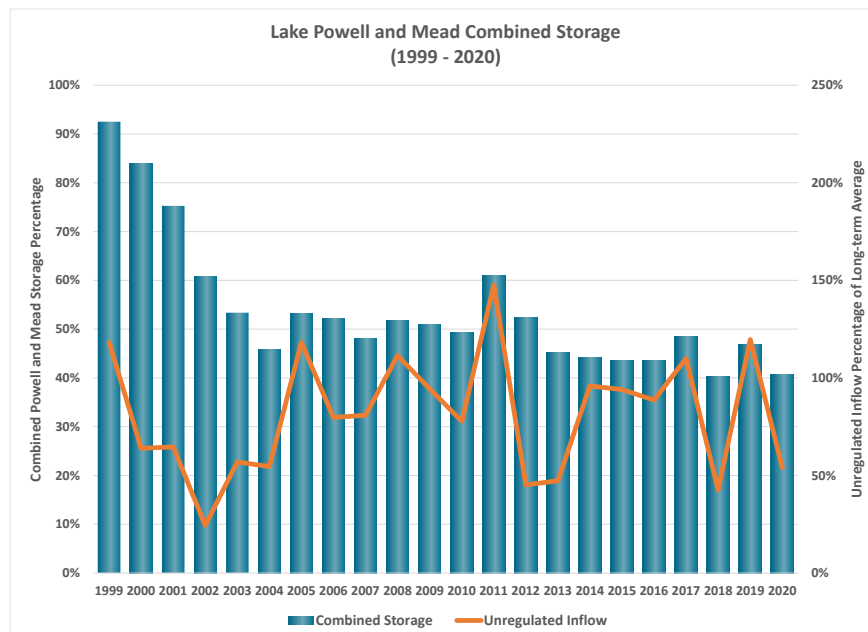


The Colorado River is composed of three major river systems: Green River, Colorado River and the San Juan River. The Colorado River is the lifeblood of the CAP system as well as the southwestern United States and Northwest Mexico. The annual natural flow from the Colorado River is estimated to be about 14.8 million acre-feet per year, calculated from the long-term average of measurements beginning in 1906. The Green River, with headwaters in the Wind River Range in western Wyoming, contributes 33% of the annual natural flow; the Colorado River mainstem, with headwaters in Rocky Mountain National Park in Colorado, provides about 42% of the annual natural flow; and the San Juan River, with its origins near Durango, Colorado, provides about 13% of the annual natural flow to the River. Additional flows are provided from numerous smaller tributaries including the Virgin River system in Utah, Nevada, and Arizona, and the Bill Williams River in Arizona.



View from Hoover Dam—Lake Mead

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



The Colorado River system includes 10 major dams and reservoirs. The backbone of the system is comprised of the two largest reservoirs in North America: Glen Canyon Dam/Lake Powell and Hoover Dam/Lake Mead. These two reservoirs have a combined storage capacity of about 50 million acre-feet. They capture flood flows in wet years and release storage during dry years.

At the end of 1999, the combined reservoir storage of Lake Powell and Mead was almost 95% of capacity or about 47.5 million acre-feet of storage. However, since that time, due to prolonged drought and full use of the system, the reservoir storage has declined to almost 50% of capacity or about 24 million acre-feet of combined storage.

The decline in reservoir storage is the result of fewer high-flow years than in previous decades. In addition, there is a structural deficit in the system, where normal uses exceed normal supplies in most years. The drought, along with the structural deficit, creates risks to the reliability of the Colorado River supply. Since 2014, water users, including CAWCD, have undertaken efforts to reduce the impacts of drought and the structural deficit by reducing uses of Colorado River water. These efforts include system conservation programs where water users are paid to reduce their use of water and leave water in the Colorado River system. In addition, the Colorado River Basin States, the United States, Mexico and key water users including CAWCD, are now implementing the 2019 Drought Contingency Plan. This plan reduces Colorado River diversions to protect critical elevations in Lake Powell and Mead. The plan is working to reduce the near-term and longer-term risks in the Colorado River system.

COLORADO RIVER SHORTAGE

The Arizona Department of Water Resources and Central Arizona Project are taking proactive steps to address Colorado River shortages and improve the health of the river system by



working in collaboration with the Colorado River Basin states, federal government, Mexico, and local and regional partners, which include Tribes, Yuma agricultural and on-river municipal water users in water resource management.

Collaboration is focused on reducing the near-term risks caused by the ongoing drought as well as addressing the long-term imbalance between supply and demand on the Colorado River system.

In 2007, to prepare for a possible shortage and to guide Colorado River operations during low

reservoir conditions, the seven Colorado River Basin states and the Bureau of Reclamation completed an agreement clarifying the triggers and anticipated reductions during shortage conditions. This document identified the steps to be taken should a shortage be declared. As part of the Shortage Sharing Guidelines, water levels in Lake Mead and Lake Powell are coordinated to allow more efficient management of the Colorado River supply. Water users across the Basin states continue to work together to promote the benefits of conserving Colorado River water. This agreement runs through 2026.

Frequently Asked Questions:

What is a Colorado River Shortage?

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

A Tier 1 was declared for 2022 when the August 2021 prediction showed the end of December 2021 level to be below 1075'. A high probability of a Tier 2a shortage is predicted for 2023.

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 will, however, eliminate CAP water supplies to the Arizona Water Banking Authority (AWBA). It would also reduce a portion of the CAP water supply identified for groundwater replenishment, delivery of water available for agricultural users in central Arizona and causes 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.

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 use these resources to firm CAP M&I subcontracts.



View from Hoover Dam—Lake Mead



Lake Mead & Lake Powell

A LINKED LIFELINE - HOW LAKE POWELL & LAKE MEAD ARE DESIGNED



TO RISE AND FALL TOGETHER

The two largest water supply reservoirs in the United States are part of the Colorado River System - Lake Mead at the Arizona/Nevada border and Lake Powell at the Arizona/Utah border. These two reservoirs are linked by the Colorado River through the Grand Canyon and provide about 90 percent of the system's storage capacity, supplying seven states and Mexico with water.

The enormous storage capacity in these two reservoirs has provided the resiliency to continue Colorado River water supply deliveries during more than two decades of drought. The two lakes also provide vital clean, renewable hydroelectricity used across the western United States, as well as environmental and recreational benefits.

CONJUNCTIVE MANAGEMENT

In order to operate the Colorado River system efficiently and make optimal use of the available storage in these vital reservoirs, the operations of Lake Powell and Lake Mead are coordinated, known as conjunctive

management. In fact, conjunctive management is required by the Colorado River Basin Project Act, which was signed more than 50 years ago to provide a program for the comprehensive development and augmentation of the Colorado River supplies throughout the Upper and Lower Colorado River Basins.



One important goal of coordinated long-term management of these reservoirs is to maintain “as nearly as practicable” equal contents of active storage in Lake Powell and Lake Mead. Lake Mead has about 28 million acre feet (MAF) of storage and Lake Powell can store about 26 MAF.

SHORTAGE SHARING

In 2005, the U.S. Secretary of the Interior directed the Bureau of Reclamation to develop additional strategies for improving the coordinated management of these two reservoirs. The goal was to honor the intent of the Colorado River Basin Project Act, while sharing the water



Glen Canyon Dam

between the Upper (Colorado, New Mexico, Utah and Wyoming) and Lower (Arizona, California and Nevada) Basins during times of lower reservoir levels. The result was the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, known as the 2007 Guidelines. These guidelines remain in effect through Dec. 31, 2025.

The essence of this coordinated approach is that releases and reductions will be coordinated to share risks to water users in each basin. Detailed descriptions and definitions can be found in the 2007 Guidelines where further scenario explanations are available.



Lake Powell

24 - MONTH STUDY & A LINKED LIFELINE



WHY DO WATER MANAGERS PAY SUCH CLOSE ATTENTION TO THE 24-MONTH STUDY?

Colorado River water users, like CAP, rely upon operating guidelines related to the amount of water stored in the two major Colorado River Basin Reservoirs – Lake Powell and Lake Mead. The operating guidelines determine how much water will be released from those reservoirs to meet water-user needs. Since 2007, the 24-Month Study has been used to implement the operational decisions directed by the guidelines. We have long understood the risks to Arizona’s Colorado River supplies and have been planning for decades, including the successful efforts to help craft the Drought Contingency Plan for the Colorado River system in 2019.

Each month, the U.S. Bureau of Reclamation (BOR) prepares the 24-Month Study based on hydrologic modeling, including estimates of precipitation, runoff and water uses to forecast operations for these two reservoirs for the next two years. The study considers three hydrologic scenarios, a most likely (“most probable”) condition for system inflow into Lake Powell and releases to Lake Mead, and frequently provides “wetter-case” and “drier-case” scenarios. The study uses these hydrologic scenarios combined with the complex operating rules of the system to generate a dense set of tables containing storage and release values for each of the major reservoirs in the Colorado River system. The results of the monthly study forecast the water supplies for the more than 40 million people served by the Colorado River.

The Colorado River System relies on snowpack as the primary source of its water supply. Consequently, there are two particularly important months where data from the Study gives a clearer indication of what the water supply will be for the subsequent 24-month period:

- In April, at the conclusion of the snow accumulation season, when an accurate projection of runoff from snow melt can be determined.
- In August once the runoff period has fully concluded and the storage contents for the upcoming water year are more fully known.

The U.S. Secretary of the Interior relies on the April Study to evaluate releases from Lake Powell and the August Study to make the Colorado River water supply determination for the upcoming year. Here are the particulars regarding the April and August 24-Month Studies:

APRIL 24-MONTH STUDY

The April 24-Month Study has the best estimate of the likely runoff into Lake Powell, the Upper

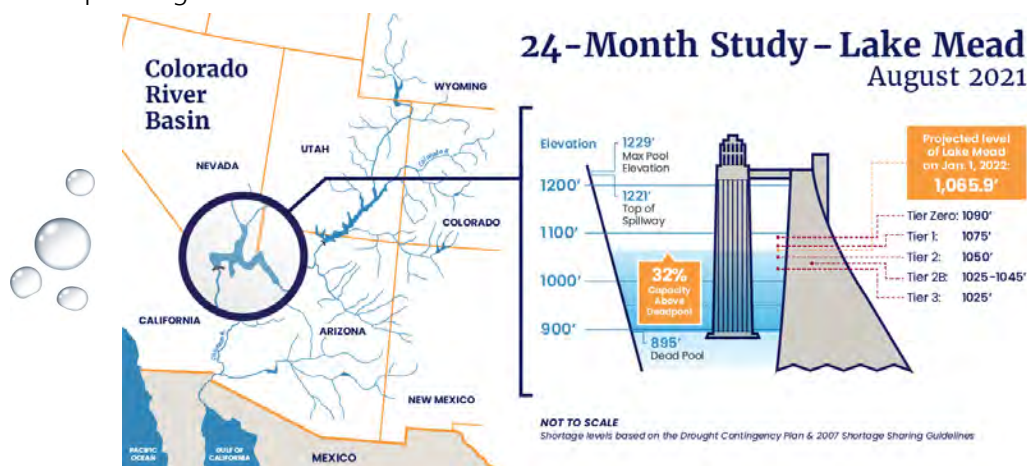
Basin's primary reservoir. The April 24-Month Study is used to make any necessary adjustments to the previous year's determination of water releases from Lake Powell to Lake Mead. The previous year's determination was made in August (see below) with assumptions about the coming year's snowpack and runoff. In the event the forecasted inflow to Lake Powell from August was too wet or too dry, the April Study is used to make adjustments.

AUGUST 24-MONTH STUDY

The August 24-Month Study forecasts the coming year's precipitation, runoff and water uses in the Colorado River Basin. This study is of particular interest because it projects the level of Lake Mead, the Lower Basin's reservoir, at the end of the calendar year. The projected elevation at the end of the year, which reflects the amount of storage in Lake Mead, determines the operating conditions and supply available for Colorado River water users in California, Nevada, Arizona and Mexico. In summary, the projected end-of-year elevation determines whether there is a shortage triggered for the coming year. If Lake Mead is projected to be below elevation 1090', Arizona, and in particular CAP, will face reductions in its available Colorado River supply. When Lake Mead elevation is between 1090' and 1075' there is a Tier Zero reduction, which reduces the supply to CAP by 192,000 acre-feet or about 12%. When Lake Mead elevation is between 1075' and 1050' there is a Tier 1 shortage, with a reduction of 512,000 acre-feet or about 30%. Here you can see the Lower Basin shortage levels and their corresponding reductions.



Glen Canyon Dam



COLORADO RIVER DROUGHT CONTINGENCY PLAN (DCP)

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

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



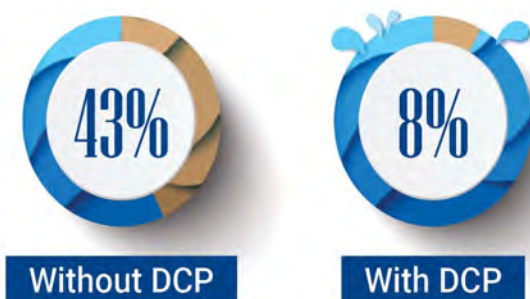
In 2018 and early 2019, ADWR and CAP jointly led nearly 40 stakeholders through months of public and small group meetings. During this process, new arrangements, which form a package called the Arizona DCP Implementation Plan, were negotiated. The package agreements share the burden of impacts from Colorado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



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

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

Risk of Lake Mead going below 1,025' by the year 2026
 (From June 2018 BOR data)

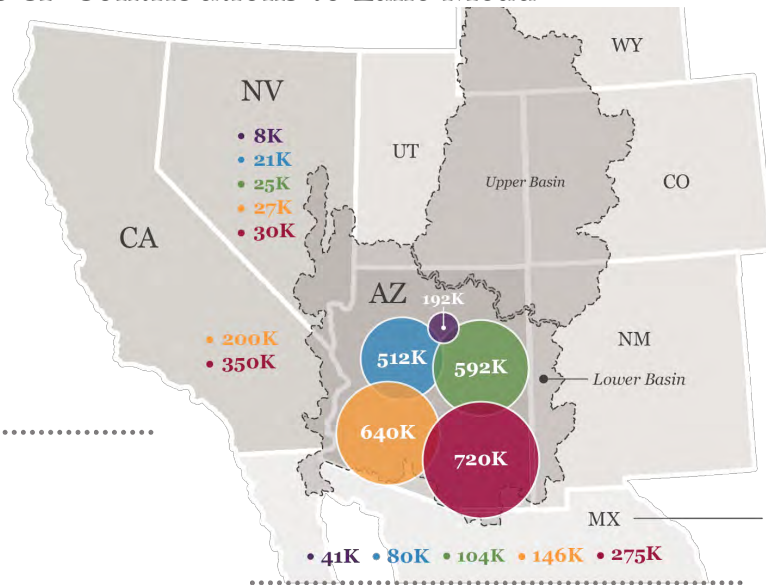


The Drought Contingency Plan Authorization Act was signed into law on April 16, 2019 and reductions to Arizona's Colorado River supply under DCP began in 2020; and run through 2026. It is anticipated that new rules will be negotiated and put into effect after 2026.

Lower Basin DCP Contributions to Lake Mead

IN ACRE-FEET PER ELEVATION PER YEAR

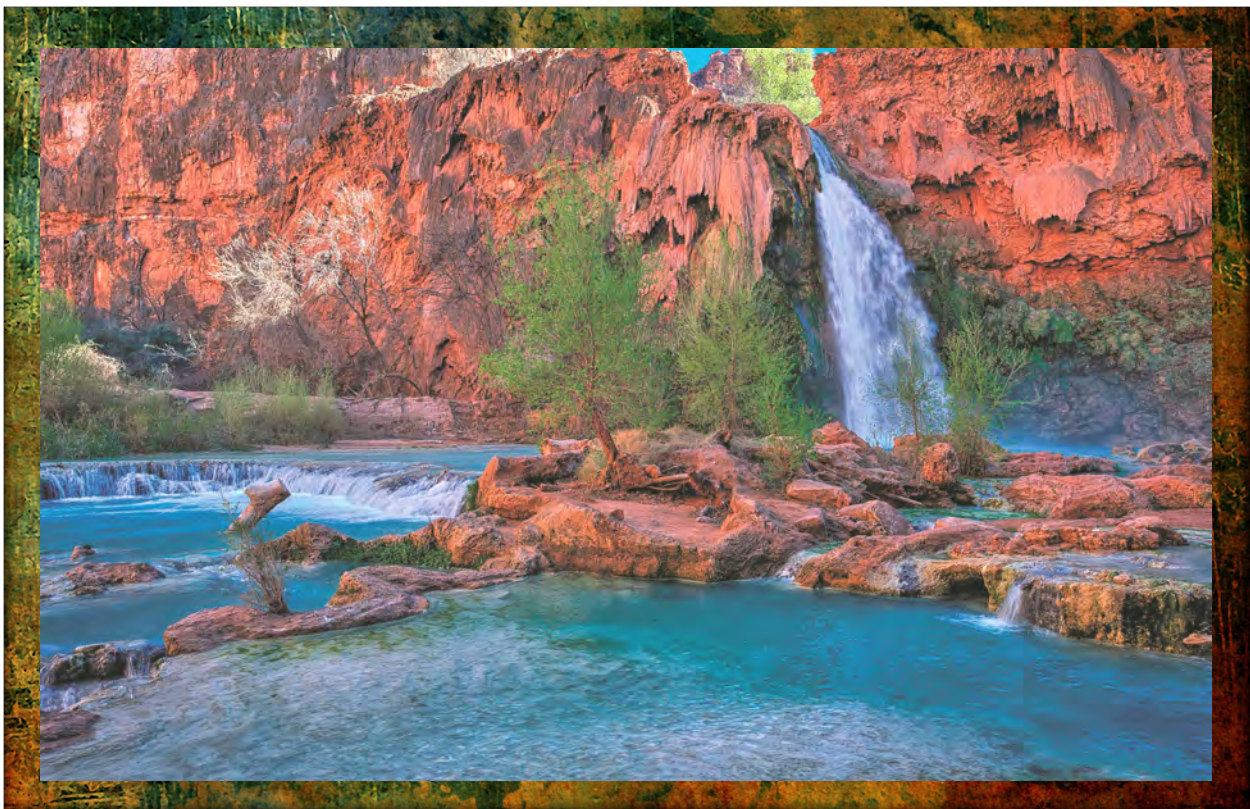
- Less than 1,090'
- Less than 1,075'
- Less than 1,050'
- Less than 1,045'
- Less than 1,025'



Bureau of
Reclamation
• 100K / year

Minute 323
Binational
Water Scarcity
Contingency Plan

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



Havasupai Falls - Colorado River

COLORADO RIVER SALINITY CONTROL PROGRAM

In 1975, 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

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



Colorado River in Arizona

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.

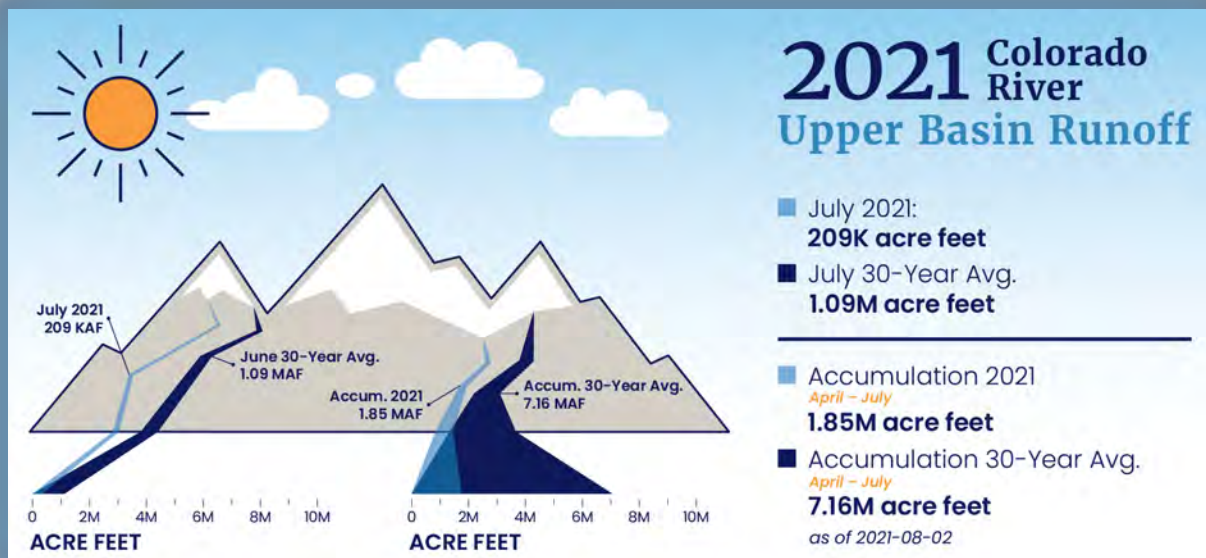


Snow Melt Run-Off — Colorado Spring Mountain Lake

COLORADO RIVER “RUNOFF”



The majority of the winter snow runoff that arrives as inflow into Lake Powell occurs from April through July. In 2021 the unregulated inflow into Lake Powell for this period of April through July was 1.85 million acre-feet, which is about 26% of the 30-year average. Even though the snow accumulation in the Colorado River Basin during the previous winter was just under 70% of the 30-year average, the soil moisture conditions going into the snow accumulation season were extremely dry, which contributed to the low inflows into Lake Powell this year. The current elevations in Lake Powell and Lake Mead together with projected inflows and water uses are resulting in a release of 8.23 million acre-feet from Lake Powell in Water Year (WY) 2021 and 7.48 million acre-feet in WY 2022 and WY 2023. With these lower inflows into Lake Mead, Tier 1 Shortage conditions will occur in 2022 and Tier 2a Shortage is possible for 2023.

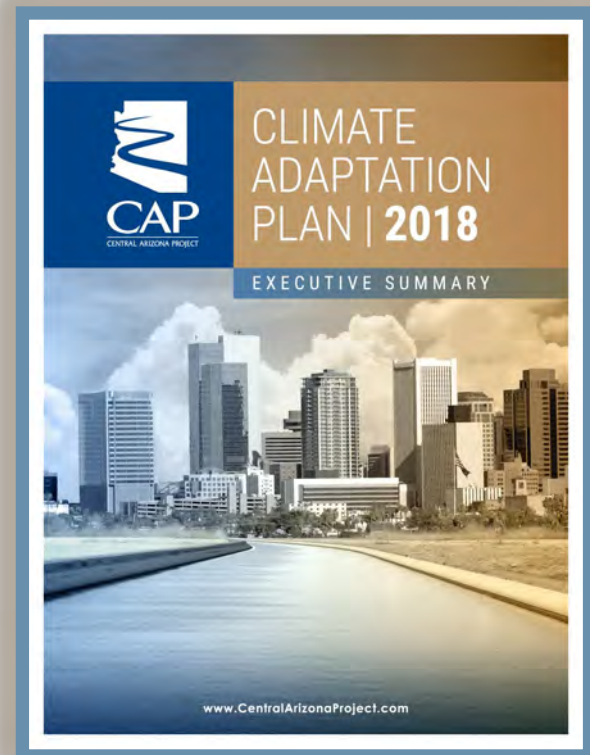


CAP CLIMATE ADAPTATION

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

CAP / ASU NASA-FUNDED STUDY

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



WATER UTILITY CLIMATE ALLIANCE



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

CAP CLIMATE ADAPTATION PLAN

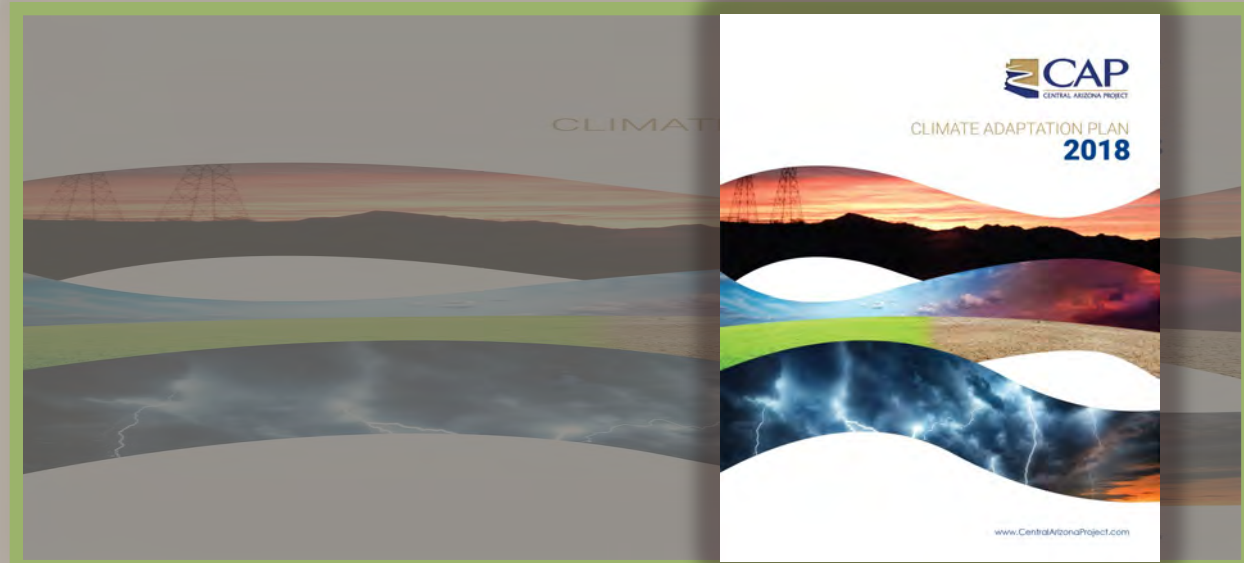


CAP began the process of developing its own organizational climate adaptation plan in 2017. The process began by assembling a team of CAP staff members and CAWCD Board of Directors sponsors who collectively represent key areas of the organization that are vulnerable to current and future impacts of climate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

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

Sixty-one potential implications of climate change are presented in this report, along with 131 adaptation strategies. Additional in-depth analysis of implications and strategies is recommended to identify and prioritize the most important adaptation strategies. The analysis will be used to support an implementation plan that highlights what strategies should be implemented and how to implement them, along with a plan for monitoring conditions to inform additional future action.

The analysis would be used to assess risk to CAP and form the basis of an implementation plan. Risk could be quantified by assessing the likelihood of implications occurring, the severity of the implications, and the ability to mitigate the implications. Costs and benefits of strategies could be assessed. CAWCD is currently finalizing its climate adaptation implementation plan and anticipates releasing it in late 2021 or early 2022.





Canal Near Salt Gila Pumping Plant—taken by employee Pam Saba

CAP SYSTEM USE AGREEMENT

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

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

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



CAWCD Board of Directors & Bureau

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

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

CAP REVENUE SOURCES

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

CAWCD is authorized to assess two property taxes:

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

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

Tax Year July-June	Maricopa County NAV/LPV (\$M)	% Growth	Pinal County NAV/LPV (\$M)	% Growth	Pima County NAV/LPV (\$M)	% Growth	Total NAV/LPV (\$M)	% Growth
2017	\$38,252	5.9%	\$2,239	5.6%	\$8,075	3.3%	\$48,566	5.4%
2018	\$40,423	5.7%	\$2,355	5.2%	\$8,334	3.2%	\$51,113	5.2%
2019	\$43,194	6.9%	\$2,521	7.0%	\$8,730	4.8%	\$54,446	6.5%
2020	\$45,704	5.8%	\$2,689	6.7%	\$9,140	4.7%	\$57,535	5.7%
2021	\$48,724	6.6%	\$2,869	6.7%	\$9,696	6.1%	\$61,289	6.5%
2022	\$51,593	5.9%	\$3,053	6.4%	\$10,275	6.0%	\$64,921	5.9%
2023	\$54,461	5.6%	\$3,246	6.3%	\$10,800	5.1%	\$68,507	5.5%
2024	\$57,347	5.3%	\$3,457	6.5%	\$11,334	4.9%	\$72,137	5.3%
2025	\$60,401	5.3%	\$3,686	6.6%	\$11,896	5.0%	\$75,983	5.3%

Sources: CAP; Maricopa County; Pinal County; Pima County; Elliott D. Pollack & Company (April 2021)



ECONOMIC IMPACT OF CAP TO ARIZONA

The CAP has supported Arizona's gross state product (GSP) with \$2 trillion in economic benefits since water deliveries began. The GSP represents the dollar value of all goods and services produced in the region and is a measurement of the economic output of a state. This economic impact supports 22 sectors of the Arizona economy related to gross state product and job-years of employment.

The study's analysis demonstrated the growing importance of CAP for the

State of Arizona economy. CAP's establishment and subsequent delivery of water to municipal, industrial, and agricultural customers in the three central AMAs has had a crucial impact on the economic development of the state.

The purpose of the study was to calculate the economic impact of CAP for the State of Arizona, assessed in terms of GDP by State and employment, in three aspects:

- The construction of CAP 1973-1993;
- The impact of CAP's water supply delivery operations, 1986-2017; and
- The impact of CAP's inhouse operations, 2011-2017

It is important to note that the study did not take into account additional benefits associated with CAP, such as the 10,000 acre, Lake Pleasant Park, the Reach 11 recreation area in Phoenix, or the TPC golf course and Westworld in Scottsdale. The inclusion of these would have in all probability increased the estimated economic value of CAP's water delivery in Arizona during 1986 through 2017.

The study estimated that the annual importance of CAP's water supply to statewide GDP is greater than 40% from 2011 onwards. In addition, the analysis estimated that the GDP would have been cumulatively lower by approximately \$2.0 trillion between 1986 and 2017, if CAP had not been established, and the availability of water for municipal, industrial, and agricultural customers had declined accordingly. This represents a loss of approximately 28.2% of cumulative statewide GDP throughout the study period.

THE TOP FIVE SECTORS estimated to be impacted the most in terms of contribution to GSP since water deliveries began are:



GOVERNMENT
\$335.2 billion



HEALTHCARE
\$302.1 billion



REAL ESTATE & TRAVEL
\$286.6 billion



RETAIL
\$187.9 billion



CONSTRUCTION
\$187.0 billion

IN RECENT YEARS

Colorado River water delivered by CAP has supported an economic benefit exceeding

\$100 BILLION PER YEAR



ARIZONA'S GROSS STATE PRODUCT



CAP's supply of water to its customers in **2017** is estimated at annual employment of nearly **1.6 MILLION JOBS.**



Arizona Desert

DISTRICT FUNDS



Central Arizona Project (CAP) accounts for its activities by means of four separate funds and accounts. Each fund and account represents a separate activity that has its own sources and uses of cash. Within each, revenues and expenses are further divided between operating and non-operating categories. These funds and accounts are further explained in the Operating Budget, Section 4. The following key assumptions provide the framework and guidance for development of the 2022 / 2023 Biennial Budget. The assumptions and trends are discussed in the sections that follow:

General Fund

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

Assumptions

- Water revenues are based on reconciled rates of estimated costs and projected water volumes
- Tax and capital charge revenues are based on current Board approved rates and distributions
- 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

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
- Replenishment obligation expense is based on the anticipated cost of supplies to fulfill obligation

Supplemental Water Account

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

Assumption

- Interest accrues on the reserve balance and there are no anticipated costs during the budget period

Captive Insurance Fund

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

Assumptions

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



Red Mountain freeway just north of McDowell Rd — Taken by CAP Employee Pam Saba

DISTRICT REVENUES

CAWCD has four major sources of funding:

Water O&M charges

Capital charges

Power and Basin Development Fund (BDF) revenues

Property taxes

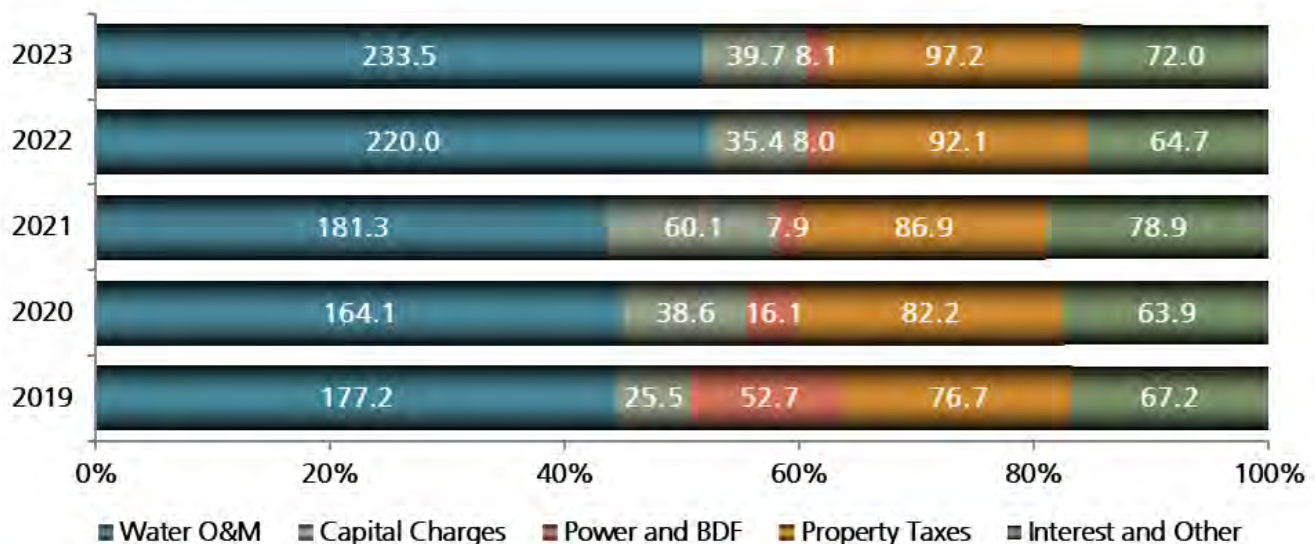
Interest income and other revenues

Water O&M charges are the District's most significant revenue source, accounting for approximately 52% of the 2022 / 2023 Budget. Property taxes comprise approximately 22% of revenues, with the balance comprised of capital charges, Power and Basin Development Fund (BDF) revenues, interest income and other Revenues. Other revenues includes Central Arizona Groundwater Replenishment District (CAGR) charges, interest income, underground water storage fees, reimbursements and interest income.

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, CAGR 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 CAGR account it is shown as an expense. At the consolidated level, the transaction is eliminated, which is shown under eliminations.

Total Revenue

(\$ Millions) - 100% scale



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

(\$ Millions)	2021 Projection	2022 Budget	2023 Budget	22 vs 21 Incr/(Decr)	23 vs 22 Incr/(Decr)
Water O&M Charges	\$ 181.3	\$ 220.0	\$ 233.5	\$ 38.7	\$ 13.5
Capital Charges	60.1	35.4	39.7	(24.7)	4.3
Power & Other BDF	7.9	8.0	8.1	0.1	0.1
Reimbursement	65.6	56.9	63.8	(8.7)	6.9
Property Taxes	86.9	92.1	97.2	5.2	5.1
Interest Income	13.3	7.8	8.2	(5.5)	0.4
<i>Total Revenues</i>	<i>\$ 415.1</i>	<i>\$ 420.2</i>	<i>\$ 450.5</i>	<i>\$ 5.1</i>	<i>\$ 30.3</i>

WATER O&M CHARGES

Water Volumes

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

The AWSA established a pool for Ag customers as a settlement for relinquishing their long-term CAP subcontract allocations so that water supply could be used for Indian water settlement. The Ag Settlement pool was 256,143 acre-feet delivered in 2019, but declined to 42,000 acre-feet in 2022 under Tier 1. No delivery is expected in 2023 under Tier 2a. CAWCD has various rate schedules for these customer classes (see page 7-3). Ag subcontractors were relieved of certain indebtedness to the United States. Part of this relief was in the form of debt forgiveness by the United States, and part of the relief was the assumption of a portion of the debt (known as 9(d) debt) by CAP. In addition, Ag customers do not pay Fixed Operations, Maintenance and Replacement (OM&R) as part of the AWSA, which is referred to as the Ag Consideration.

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

- CAWCD shall first use available CAP excess water to fully satisfy the Ag Settlement Pool. Any remaining CAP excess water is "Other Excess".
- CAWCD will then use Other Excess to satisfy commitments associated with the Water Availability Status Contract with the City of Scottsdale, not to exceed 2,910 acre-feet.
- CAWCD will then use Other Excess to satisfy the difference, if any, between the most recent year of reported CAGRD replenishment obligation, and the volume of renewable supplies available for replenishment (excluding Long Term Storage Credits (LTSCs), up to a limit of 10,000 acre-feet per year.

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

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.

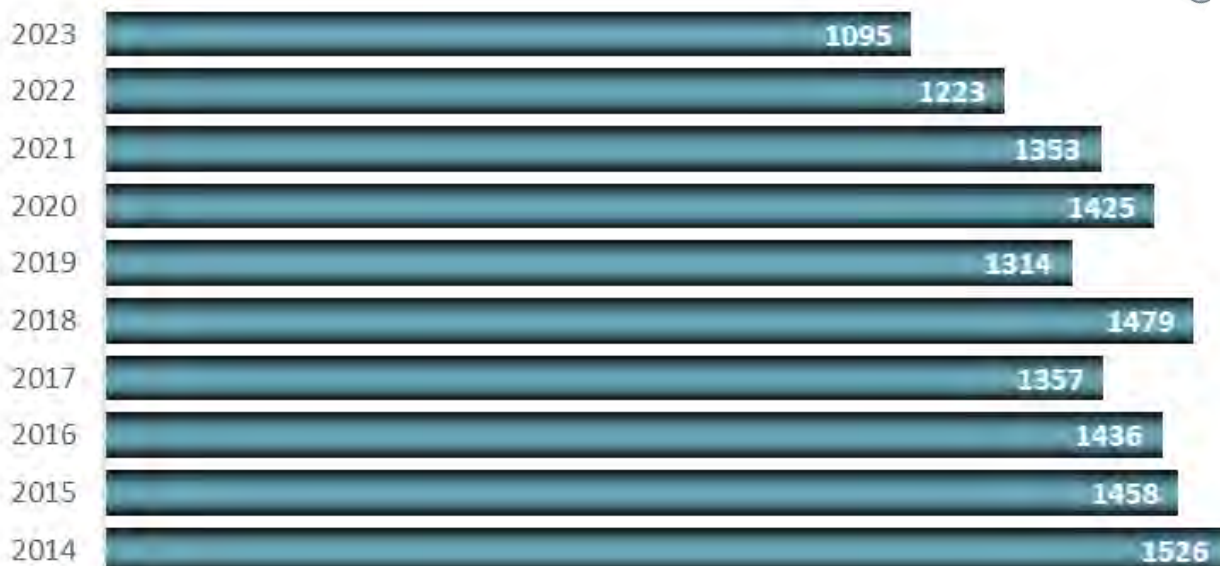
Due to the ongoing drought, structural deficit and Drought Contingency Plan (DCP) implementation, water available to CAWCD has decreased. In addition, as M&I and federal water usage has grown, the availability of excess water has decreased significantly.

Major Assumptions

- In 2022, CAWCD planned deliveries are based on a Tier 1 DCP level, which includes a total reduction of 512,000 acre-feet of deliveries.
- In 2023, CAWCD planned deliveries are based on a Tier 2a DCP level, which includes a total reduction of 592,000 acre-feet of deliveries.
- The Ag Settlement Pool is reduced to 42,000 acre-feet in 2022 under Tier 1 and is fully eliminated in 2023 under Tier 2a.
- No other excess water is made available during the budget period.

Water Deliveries

Acre-Feet (000)
Excludes credits



Water O&M Charges

As prescribed in CAP's rate-setting policy, water O&M rates are set biennially in June (even years) for the upcoming two calendar years with firm rates for the first year, provisional rates for the second year and advisory rates for the following four years. Provisional rates automatically become firm the next year, unless the Board takes additional action. In 2020, CAP set the provisional rates for 2022. Due to changes with energy market forecasts, transmission costs and water volumes, the Board revised the 2022 rates as well as the advisory rates in 2021. During the rate setting period, there appeared to be a high likelihood of a Tier 1 shortage in 2022 so all rates from 2022 to 2026 were revised to a Tier 1 shortage. Other Tier level shortages were also provided as a reference. Subsequently, based on the January 1 projected level of Lake Mead at 1,065.85 feet above sea level, the U.S. Secretary of the Interior did declared the first-ever Tier 1 shortage for Colorado River. In addition, it is projected that there will be a Tier 2a shortage in 2023. The previously approved advisory rates for 2023 were revised to be a Tier 2a to develop the 2022 / 2023 budget. The updated rates can be found in the Rate Schedules in the Appendix (pages 7-3 through 7-6).

Due to the correlation between water delivery volumes and water delivery charges, assumptions used to explain water delivery volumes are pertinent for understanding water delivery revenues. The following table reflects actual water deliveries and associated revenues for 2019 and 2020 and water delivery volume assumptions and related revenues for 2021 through 2023.

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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Volume (Acre-feet in Thousands)					
Municipal & Industrial	593.7	608.1	607.6	665.4	654.3
Federal	443.2	482.4	489.1	515.3	440.5
Ag Settlement	256.1	255.4	256.1	42.0	-
Other	21.4	78.9	0.6	0.6	0.6
Total Water Deliveries	1,314.4	1,424.8	1,353.4	1,223.3	1,095.4
CAGR Credit Transfer	33.2	5.1	15.2	15.2	16.3
Take or Pay/Adjustment	26.0	11.4	6	6	6
Total Water Volume	1,373.6	1,441.3	1,374.6	1,244.5	1,117.7
Revenues (Millions)					
Total Water O&M Charges	\$ 177.2	\$ 164.1	\$ 181.3	\$ 220.0	\$ 233.5

Fixed OM&R Rate Component

The Fixed OM&R component of the rate is comprised of two parts: O&M costs and a capital replacement component ("Big R"). The O&M costs are calculated to assume that costs associated with fixed O&M are recovered. Water delivery costs are divided by total deliveries to calculate the O&M rate. Since costs are fixed, as deliveries decrease, the rate per acre-foot increases and vice versa.

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

In consideration for giving up their subcontract water rights, Ag settlement pool stakeholders' Fixed OM&R is paid from property taxes. Since tax revenue is recorded when levied, water O&M revenue is not recorded on Ag Settlement pool deliveries. With the reduction and elimination of the Ag Settlement pool, more Water O&M revenue is recorded on those deliveries that are delivered to long term contract holders.

Pumping Energy Rate Component

The pumping energy rate component relates to the energy costs associated with delivering water. All customers pay pumping energy, including Ag customers. With the decommissioning of the Navajo Generating Station (NGS) in 2019, all energy is provided through long-term contracts, the energy market and Hoover (see pages 2-15 through 2-16 for additional energy information). The use of energy is variable and as deliveries decrease, the total energy cost and subsequently the revenue also decrease. The rate per acre-foot, however, remains fairly consistent.

Major Assumptions

- 2022 and 2023 Water O&M revenues are projected to be the indicated volumes and at reconciled rates for long-term contracts and subcontracts.
- 2022 and 2023 water delivery levels will be at the levels indicated on page 7-1.

CAPITAL CHARGES

Capital charges are used to pay the District's annual repayment obligation to the federal government for building the CAP. CAWCD assesses a capital charge to M&I customers based on subcontract allocations for M&I subcontractors and are not impacted by water delivery volumes. Neither federal or Ag customers pay a capital charge.

Customers using excess water pay capital charges in the form of a facility-use charge based on scheduled water deliveries. Any repayment obligation amount not covered by capital charges are made up from property taxes.

Non-Indian Agricultural Reallocation

Through 2020, CAWCD held 96,295 acre-feet of NIA priority rights that had been set aside for future allocation to M&I users. These NIA priority rights were recorded as an asset of CAWCD at \$88.7 million. In exchange for the relinquishment, CAP incurred a 9(d) debt liability related to loans that had been made to the irrigation districts, which was recorded as an \$88.7 million liability.

The first recommended reallocation of 46,629 acre-feet is anticipated to occur in 2021 for delivery in 2022. Of these, CAGRDR will receive 18,185 acre-feet. Upon reallocation, the District will collect charges from the M&I users, an amount sufficient to repay the District's costs in facilitating the payment of the 9(d) debt. These funds will be deposited into a restricted reserve that will be utilized when the repayment begins in 2026 (see appendix (page 7-14).

As a result of this reallocation, the District will record a write-down of the NIA asset of \$26.2 million in 2021 for the reallocation that is to M&I users. In addition, the District will receive back-capital charges for these acre-feet of \$24.8 million and interest of \$12.1 million. The District is offering a 5-year payment option to the recipients, with the first payment due in September 2021 and then in equal installments for the next 4 years. The future installment created an increase in receivables of \$37.5 million in 2021. The acre-feet allocated to CAGRDR will have impacts in the individual funds and accounts, but are eliminated at the District level.

Major Assumptions

- M&I Capital Charge and facility use rates will be \$50/acre-foot for 2022 and \$56/acre-foot for 2023.
- There will be no facility use charges during the budget period.
- The NIA reallocation occurs in 2021 and all transactions are recorded in that period.

POWER AND BASIN DEVELOPMENT FUND REVENUES

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

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



Major Assumptions

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

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

(Millions)	2021 Projection	2022 Budget	2023 Budget	22 vs 21 Incr/(Decr)	23 vs 22 Incr/(Decr)
Hoover 4.5 Mil Revenue	\$ 3.4	\$ 3.1	\$ 3.2	\$ (0.3)	\$ 0.1
Parker-Davis 4.5 Mil Revenue	2.8	2.9	2.9	0.1	-
Net CAP Transmission Revenues	(1.4)	(1.0)	(1.0)	0.4	-
Land-Related Revenue	0.8	0.8	0.8	-	-
Misc NGS Revenues	2.3	2.2	2.2	(0.1)	-
	\$ 7.9	\$ 8.0	\$ 8.1	\$ 0.1	\$ 0.1

REIMBURSEMENT AND OTHER REVENUES

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

(Thousands)	2021 Projection	2022 Budget	2023 Budget	22 vs 21 Incr/ (Decr)	23 vs 22 Incr/(Decr)
CAGRD Assessments	\$ 63,873	\$ 55,125	\$ 61,803	\$ (8,748)	\$ 6,678
O&M of Underground Storage Facilities	1,544	1,354	1,630	(190)	276
Land Use Charges	11	165	174	154	9
Property Disposal (Non-Capital)	-	2	-	2	(2)
Captive Insurance Premiums	11,042	11,706	12,702	664	996
Other	270	360	340	90	(20)
Eliminations	(11,111)	(11,842)	(12,825)	(731)	(983)
Total Reimbursements and Other Revenues	\$ 65,629	\$ 56,870	\$ 63,824	\$ (8,759)	\$ 6,954



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

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

CAP Underground Storage Facilities

Underground Storage

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

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

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

AD VALOREM TAXES

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

General Ad Valorem Tax

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

In June 2021, the Board set the 2021 / 2022 General Ad Valorem tax rate to \$0.10 and designated that \$0.075 of this tax be set aside in an Extraordinary Cost reserve until such time that the Board authorizes its use. This reserve will be utilized to help address the many significant costs looming, particularly related to shortage mitigation. The Extraordinary Cost reserve is not part of strategic reserves and requires Board approval prior to use.

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

Water Storage Tax

In 1996, the Arizona state legislature created the Arizona Water Banking Authority and the Arizona Water Banking Fund for purposes of increasing Arizona's use of its Colorado River entitlement. The legislation also authorized CAWCD to levy a water storage tax at a rate of \$0.04 per \$100 of NAV in Maricopa, Pinal and Pima counties based on LPV. 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 toward the 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.

Tax Years (collected October- September)	General Ad Valorem Tax (per \$100 NAV)	Water Storage Ad Valorem Tax (per \$100 NAV)
1984-88	\$ 0.07	N/A
1988-95	0.10	N/A
1995-00	0.10	\$0.04
2000-03	0.09	0.04
2003-07	0.08	0.04
2007-13	0.06	0.04
2013-22	0.10	0.04
2022-24	0.10	0.04

Calendar Year	General Ad Valorem Tax (Millions)	Water Storage Ad Valorem Tax (Millions)	Total (Millions)
2019	\$ 54.7	\$ 22.0	\$ 76.7
2020	58.6	23.6	82.2
2021	63.3	23.6	86.9
2022	65.6	26.5	92.1
2023	69.3	27.9	97.2

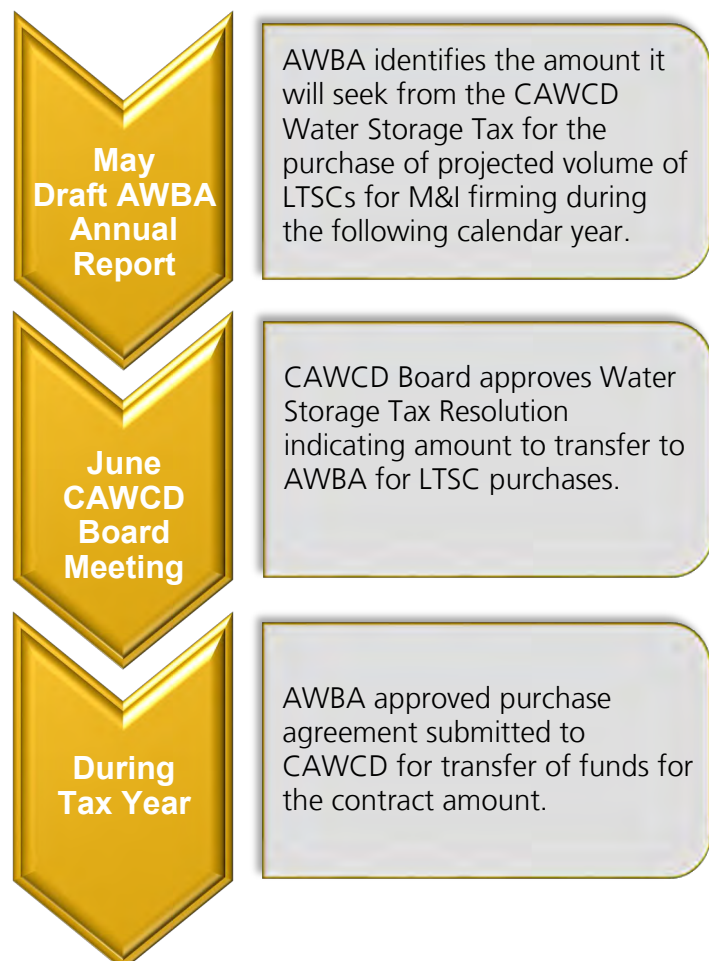
In 2014, ARS § 45-2423 was revised, allowing the AWBA to purchase LTSC. The Board subsequently approved an amendment to the existing Intergovernmental Agreement (IGA) among CAWCD, AWBA and Arizona Department of Water Resources (ADWR) that governs the way in which \$.04 taxes can be used to help pay for such purchases. The Board will continue to establish the Water Storage Tax rate and a resolution on its use each June under the existing statutes. In June 2021, the Board set the 2021 / 2022 Water Storage tax rate at \$0.04 and retained all but \$7 million for operations and repayment. The \$7 million will be transferred to the AWBA for purchases of LTSC.

Process for Long Term Storage Credit Purchases

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

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

AWBA LONG-TERM STORAGE CREDIT PURCHASE PROCESS



Property Tax Equivalency

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

Major Assumptions

- The general ad valorem tax rate will remain at \$0.10 per \$100 of NAV throughout the budget period. \$0.075 will be dedicated to the Extraordinary Cost reserve.
- The water storage tax rate will remain at \$0.04 per \$100 of NAV throughout the budget period.

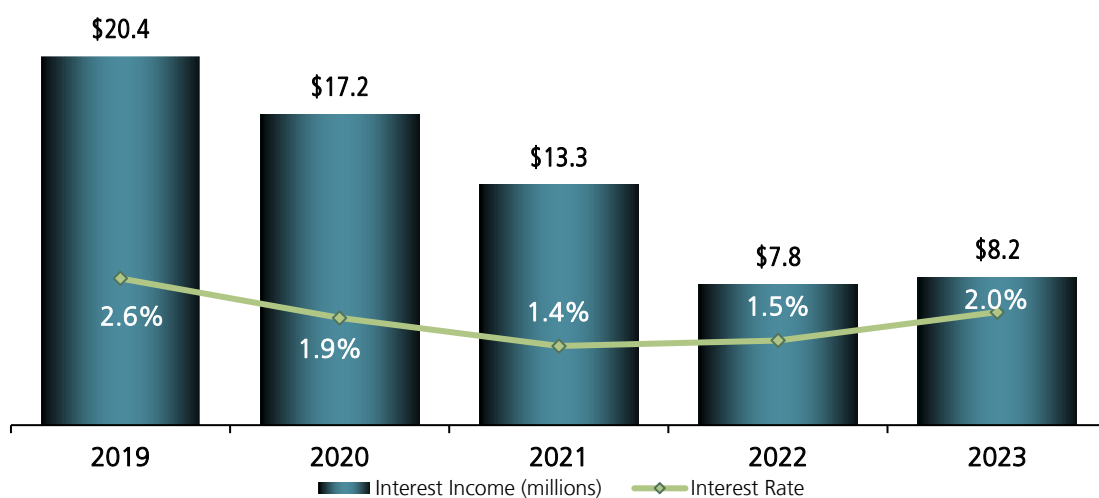
INTEREST INCOME

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

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

Major Assumption

- Interest rates for funds invested with the Arizona State Treasurer will be an average of 1.75% in 2022 and 2023 based on approximately 13% short-term investments (under 1 year) and 87% longer term investments (2-5 years).
- Interest will be paid on the annual NIA reallocation payments at 2.5%.



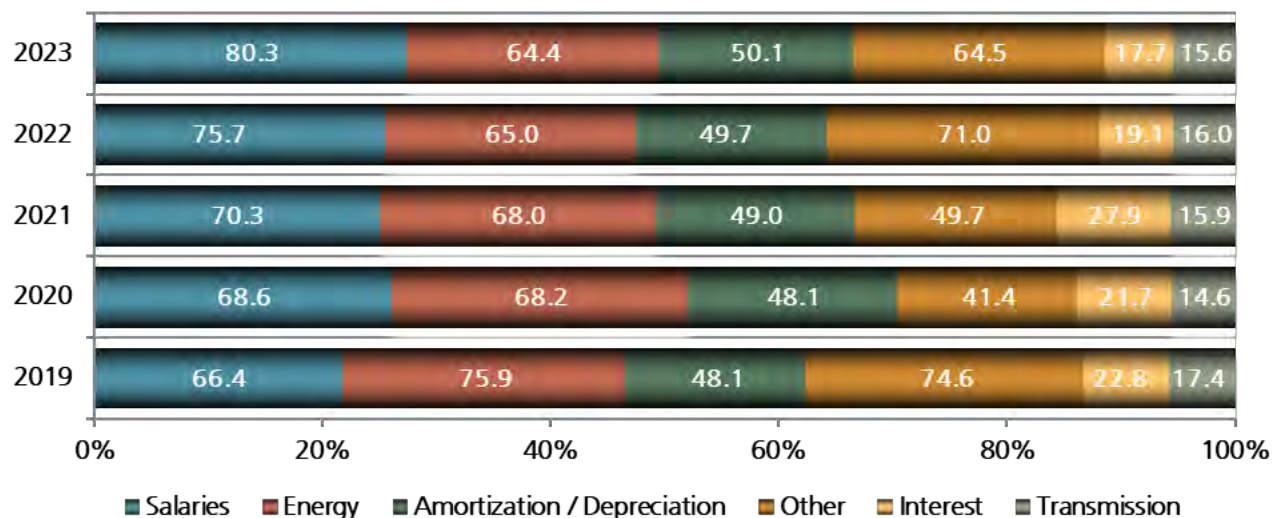
DISTRICT EXPENSES

District expenses are categorized as either operating or non-operating expenses. Operating expenses include pumping energy, salaries and related costs, amortization and depreciation and other operating costs. Non-operating expenses are associated with interest expense on the federal repayment obligation and bonds and disbursements to AWBA.

Salaries and related costs is the District's most significant expense, accounting for approximately 26% and 27% of the 2022 and 2023 budget, respectively. The second largest expense is the pumping energy, followed by other operating costs, amortization and depreciation, transmission and interest expense. The large 2021 other non-operating expense was the recording of the NIA reallocation write-down of over \$7.2 million. The following table shows the year-over-year expense changes which are explained in the subsequent sections:

Total Expenses

(\$ Millions) - 100% scale



(Millions)	2021 Projection	2022 Budget	2023 Budget	22 vs 21 Incr/(Decr)	23 vs 22 Incr/(Decr)
Salaries & Related Costs	\$ 70.3	\$ 75.7	\$ 80.3	\$ 5.4	\$ 4.6
Pumping Energy	68.0	65.0	64.4	(3.0)	(0.6)
Amortization & Depreciation	49.0	49.7	50.1	0.7	0.4
Other Operating Costs	39.4	63.4	64.0	24.0	0.6
Interest and Other Non-Operating Expense	38.2	26.7	18.2	(11.5)	(8.5)
Transmission	15.9	16.0	15.6	0.1	(0.4)
	\$280.8	\$296.5	\$292.6	\$ 15.7	\$ (3.9)

PUMPING ENERGY

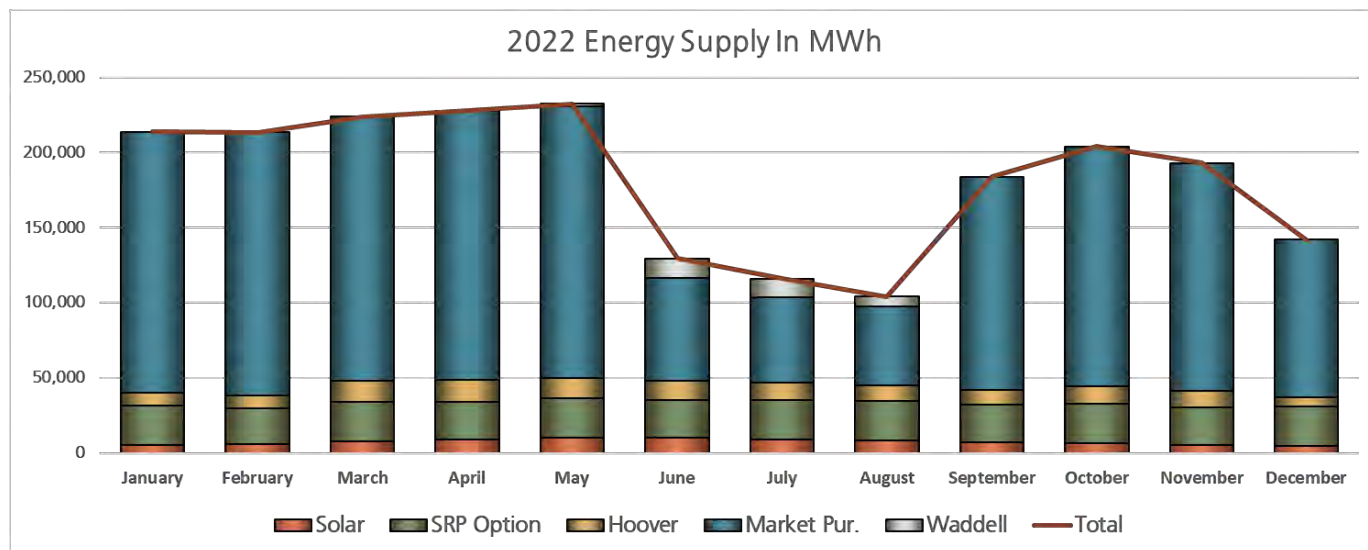
The greatest variable affecting water delivery expenses is the cost of pumping energy. While most General Fund operating costs (Fixed OM&R) will not vary with water deliveries, the cost of electricity to pump CAP water does vary. Pumping energy is consequently a variable cost. CAWCD anticipates using 2,185 gigawatt hours (GWh) of energy in 2022 and 2,088 GWh in 2023 to meet the District's pumping needs.



Power Lines in Arizona

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

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



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

Minimizing volatility in cost paid by CAWCD without sacrificing reliability

Maintaining options for use of transmission

Leveraging use of existing transmission infrastructure

Willingness to commit capital to secure new transmission

Due to current market conditions, forward energy prices are elevated but per CAP's hedging strategy, the majority of forward energy targets have been purchased for 2022. Total energy purchased for 2023 is less than half, but the focus will be on forward purchases on off-peak hours as the on-peak energy needs can be covered by existing resources.

CAWCD can increase or lower the water stored in Lake Pleasant to meet CAP operational needs. When water is pumped into the lake increasing the storage, CAWCD increases water inventory and reduces pumping energy costs. Conversely, when water is released from the lake, water inventory is decreased and pumping energy costs are increased.



Power Lines in Arizona

Major Assumptions

- Long-term contracted power is available at \$38.58/MWH in 2022 and \$37.07/MWH in 2023.
- Market purchases made at an average of \$25.11/MWH in 2022 and \$27.87/MWH in 2023.
- Lake adjustments occur as indicated in the energy section of the Appendix (page 7-7).

TRANSMISSION

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

Major Assumptions

- Similar to the energy markets, transmission rates are projected to increase during the budget.
- CAP will maintain its contractual agreement with Western Area Power Authority (WAPA) for transmission line maintenance.

SALARIES AND RELATED COSTS

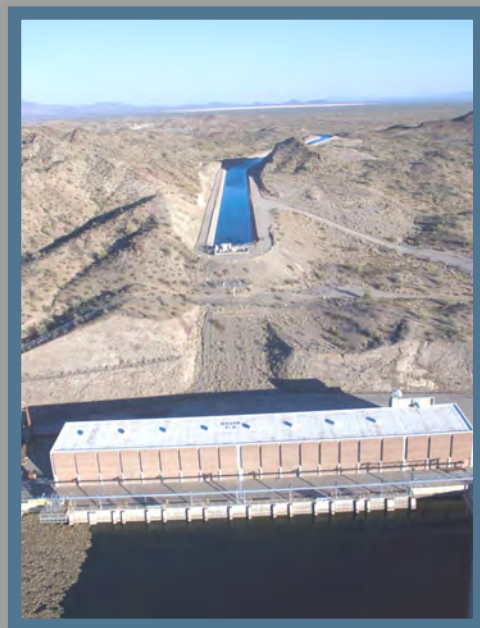
Salaries and related costs are the District's largest expense category. CAWCD's workforce is projected to be comprised of 489.5 full-time equivalent (FTE) positions for the 2022 / 2023 budget period. CAGR has a staff of 9 FTEs that are dedicated to CAGR operations and the rest are dedicated to CAP operations. Of these, about one-third are assigned to the pumping plants and other locations along the aqueduct and the balance are assigned to Headquarters in Phoenix. Approximately 70% of CAWCD's workforce is dedicated to the core water delivery business, including water delivery activities, capital projects and extraordinary maintenance projects.

Two positions were added in 2021, the Public Affairs Analyst and Water Control Dispatcher Trainee. There are no new FTE additions in the 2022 / 2023 budget from 2021 levels, though it is anticipated some vacant positions will be filled. Salaries and related costs are projected to increase as a result of filling of vacant positions, a shift of work from capital to operating projects (in 2021) and a budgeted 5% merit increase, which is based on current market surveys. Open positions are reviewed to determine the most effective and efficient manner to fill the needs of that position and are evaluated on supporting the strategic objectives of CAP. Open positions and the lag time in filling those positions create a vacancy savings equivalency of approximately 15 FTEs in recent years, which is included in the budget. The Organizational Summary section includes details on the District's organizational structure and FTE detail.

Major Assumptions

- No new positions are requested in the budget period, and include a factor for vacancy / salary savings equivalent of 15 FTEs to reflect turnover and retirements.
- Include an average merit increase of 5% per year to maintain a competitive compensation and benefits package.

AMORTIZATION AND DEPRECIATION



Bouse Pumping Plant

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 for 2022 and \$21.8 million for 2023.
- Include depreciation of \$26.7 million for 2022 and \$28.3 million for 2023.

INTEREST EXPENSE

CAWCD pays interest on the federal repayment obligation and its bonds. CAWCD has 2 revenue bond issues outstanding: Series 2016 bonds relating to transmission projects and CAGR 2019 bonds relating to CAGR water acquisitions. The CAWCD Series 2016 bonds were sold at a premium and there is an annual amortization of the premium that decreases interest expense. Detailed debt schedules are contained in the appendix (page 7-12 through 7-13). Note the federal repayment is made in January but the interest expense for the payment is recorded in the prior year.

Major Assumptions

- Federal debt interest expense is \$17.7 million for 2022 and \$16.4 million for 2023.
- CAWCD bond interest expense is \$1.1 million for 2022 and \$1.1 million for 2022.
- CAGR bond interest expense is \$0.3 million for 2022 and \$0.2 million for 2023.
- CAWCD bond amortization is \$0.7 million for 2022 and \$0.6 million for 2023.

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., property and casualty insurance, rentals and Multi-Species Conservation Program expense). Transactions from internal sales and expenses such as water that CAGR purchases and self-insurance premiums that the General Fund pays to the Captive Insurance Fund are eliminated at the consolidated level. Board elections occur every other year in even years and is one of the larger variances when comparing year-over-year. CAGR replenishment obligation expense is the largest item in other expenses. A significant increase facing the District is the increase in its insurance coverage outside of the Captive. The market is seeing significant increases and CAWCD is anticipating to see increases of 20-25%.

(Thousands)	2022 Budget	2023 Budget
Re-consultation on Colorado River Guidelines	\$ 100	\$ 50
Data Analytics Initiative	\$ 550	\$ 550
Weather Modification & Climate Change	\$ 470	\$ 470
Board Elections	\$ 1,130	\$ -
Binational Conservation Project (BICS)	\$ -	\$ 1,670
Irrigation Conservation Research (Ndrip)	\$ 85	\$ 85
Insurance Program-Property & Casualty	\$ 2,485	\$ 3,142

2022 / 2023 Budget Initiatives

The following list provides some key unique initiatives or expenses during the budget period. These initiatives are included in costs that are included in the Fixed O&M rate:

Also included in the budget are several initiatives that are included in the District's expenses but

<i>(Thousands)</i>	Funding Source	2022 Budget	2023 Budget
Conservation Initiatives	Extraordinary Cost Reserve	\$ 7,460	\$ 8,016
Visitor Center Preparation Costs	Extraordinary Cost Reserve	\$ -	\$ 260
Regional Recycled Water with MWD	Water Storage Tax	\$ 1,000	\$ 1,000
Recovery Planning	Recovery Reserve	\$ 3,230	\$ 3,750
Extraordinary Maintenance	'Big R'	\$ 4,204	\$ 2,572
Wheeling Costs	System Use Reserve	\$ 95	\$ 20

anticipated to be funded from other sources . These items are excluded from the Fixed O&M rate calculations. Any items that are funded from the Extraordinary Cost Reserve will be brought to the Board for approval prior to executing. In the event the Board chooses to include the items in the Fixed O&M rate, the rate would increase from what this budget indicates. In the event the Board chooses to not move forward on the initiative, the item would not be utilized and cause an expense variance.

Compensated Mitigation

The Arizona Implementation Plan for the Drought Protection Plan includes compensating some long-term contract holders for reducing their water deliveries. In turn, CAWCD will contribute water and/or Intentionally Created Surplus Credits (ICS) in an amount that when combined with the compensated mitigation payments will not create an increase to the Fixed OM&R rate. The amount of the compensated mitigation and the contributed water/ICS are dependent on the year of shortage, the level of shortage and the actual amount of water ordered. Exact amounts will be determined in late October to early November each year. The compensated mitigation is included in the outside service costs and causes a significant increase on that line item. As the Board has approved this program and it is contractual, exact amounts may cause variances on actual expenses and water volumes but will not impact rates.

Major Assumptions

- The budget includes amounts to fund activities to support the Board's 2022 Strategic Plan.
- The General Fund's budget includes amounts for proper maintenance of facilities and equipment.
- The CAGRD Account includes appropriate amounts to meet its replenishment obligation and support its water acquisition program.
- The Captive Insurance Fund expenses are determined through actuarial calculations.
- Key initiatives are included and executed and funded from sources as identified.
- Compensated mitigation payments and CAWCD water/ICS included as follows:
\$14.7 million and 113.5 thousand acre-feet in 2022
\$12.7 million and 88.1 thousand acre-feet in 2023
- Include MWP Suction Tubes & BHS Right Manifold Reline project for \$4.2 million in 2022 and \$2.6 million in 2023 as Extraordinary Maintenance programs.

DISBURSEMENTS TO ARIZONA WATER BANK AUTHORITY

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

Major Assumptions

- In 2022, disbursements to AWBA include \$7.0 million for LTSC purchases and \$0.5 million for administrative costs.
- In 2023, no disbursements for LTSC purchases and \$0.5 million for administrative costs. All other water storage tax proceeds will be retained to be applied to CAP OM&R costs and repayment.



Colorado River



CAPITAL SPENDING

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

(\$ Millions)	Equipment	Capital Projects	Total
2019	1.8	24.3	26.1
2020	3.7	29.3	33.0
2021	2.7	29.4	32.1
2022	5.2	32.9	38.1
2023	5.1	36.8	41.9

Detail on each capital improvement project and a detailed equipment list is located in the Capital Budget section (see pages 5-9 through 5-39).

New projects scheduled to start during the 2022 / 2023 budget period include:

- Discharge Valves at Bouse Hills, Little Harquahala & Hassayampa Pumping Plants
- Elevator System Replacements Phase 3
- Fire Protection at San Xavier, Twin Peaks, Sandario, Brawley, Tucson Field Office
- HVAC Replacement Headquarters Building 2
- Motor Exciters at Twin Peaks, Sandario, Snyder Hill & Black Mountain

Major ongoing projects post 2022 / 2023 budget period include:

- Backup Power System Replacements at Checks, Turnouts, & Microwave Sites
- Condition-Based Monitoring
- Electromechanical Relay Replacements Phase 2
- SCADA Replacement at Control Center

Major projects that are scheduled to be completed in the 2022 / 2023 budget period include:

- Fire Protection System Upgrades at Mark Wilmer Pumping Plant
- HVAC Replacement at Mark Wilmer Pumping Plant
- Motor Exciters & Control Unit Replacements at West Plants
- Transformer replacement at McCullough

Major Assumptions

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

STRATEGIC RESERVES

Strategic Reserves are not a single fund, but rather a collection of individual accounts that have been established for a variety of specific purposes. They 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.

In 2020, as part of its biennial review of strategic targets, the Board revised its strategic reserve target to \$153 million. A review will be conducted in 2022 and the target may be adjusted as appropriate. Strategic reserves are projected to be at target of \$153 million for 2022 and 2023.

WORKING CAPITAL RESERVES

Working capital reserves are available for daily operational needs. They are used to smooth out timing differences in revenues and spending within the year as well as across years. Water rates and other charges are set in such a way as to allow CAWCD to cover its costs and maintain adequate reserve levels. It is impossible to precisely break even every year due to the uncertainties associated with water volume and rate reconciliations. In addition, fluctuations in capital spending as compared to the “Big R” revenue collection will also cause working capital reserves to fluctuate year-to-year.

In 2020, the Board established a working capital reserve target of \$51 million. The 2022 review may adjust this target also. The working capital reserves are forecasted to be above budget at \$145 million, though the Board determines tax rates annually and may modify the rate or direct it to another purpose. Budget assumptions are made that tax rates remain at current levels until the Board determines a change. The tax assumption, the receipt of back capital charges on the NIA reallocation and the decrease of taxes being used for the Ag Settlement pool deliveries Fixed OM&R are the cause of the increase.



OTHER RESERVES

The District maintains several special purpose reserves in addition to the strategic reserves (see pages 3-41 through 3-44). For this reason, even though net position may increase, the cash for the items driving the increase is deposited into these special purpose funds such as the water storage tax reserve and the CAGR reserves, and consequently does not result in an associated increase in working capital reserves.

SELECTED FINANCIAL DATA

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

All Funds

(Millions)

	2019	2020	2021	2022	2023
	Actual	Actual	Projection	Budget	Budget
Operating Revenues	\$ 302.2	\$ 265.5	\$ 314.9	\$ 320.3	\$ 345.2
Operating Expenses	(277.8)	(234.5)	(242.6)	(269.8)	(274.4)
Operating Income/(loss)	24.4	31.0	72.3	50.5	70.8
Non-operating Revenues	97.1	99.4	100.2	99.9	105.4
Non-operating Expenses	(27.4)	(28.1)	(38.2)	(26.6)	(18.3)
Total Non-operating Revenues/(Losses)	69.7	71.3	62.0	73.3	87.1
Change in Net Position	94.1	102.3	134.3	123.8	157.9
Cumulative-effect of change in accounting principles	0.0	0.0	0.0	0.0	0.0
Net Position at Beginning of Period	694.0	788.1	890.4	1,024.7	1,148.5
Net Position at End of Period	\$ 788.1	\$ 890.4	\$ 1,024.7	\$ 1,148.5	\$ 1,306.4



NET POSITION SUMMARY

All Funds

(Millions)

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

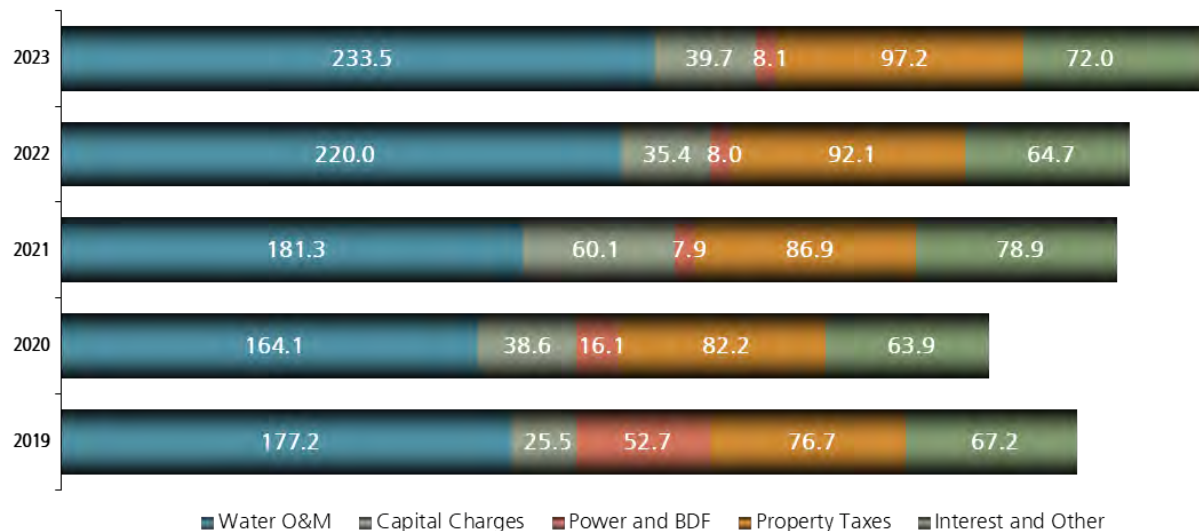
	2019	2020	2021	2022	2023
	Actual	Actual	Projection	Budget	Budget
Assets					
Cash and investments	\$ 421.3	\$ 537.6	\$ 579.7	\$ 633.3	\$ 714.4
Receivables	59.3	54.4	102.0	94.9	97.9
Water inventory	206.2	215.7	229.6	236.0	242.4
Capital assets					
Operating assets, net	297.9	305.9	331.3	343.4	357.6
Permanent service right, net	1,065.8	1,042.8	1,019.8	996.8	975.1
Agricultural water allocation	88.7	88.7	45.8	45.8	45.8
Other Assets	150.8	116.0	119.5	131.6	147.7
Total Assets	2,290.0	2,361.1	2,427.7	2,481.8	2,580.9
Deferred Outflow of Resources					
Pension valuation	9.1	18.2	18.2	18.2	18.2
Total Deferred Outflow of Resources	9.1	18.2	18.2	18.2	18.2
Total Assets & Deferred Outflow of Resources	\$ 2,299.1	\$ 2,379.3	\$ 2,445.9	\$ 2,500.0	\$ 2,599.1
Liabilities					
Repayment obligation	\$ 1,043.9	\$ 983.2	\$ 942.9	\$ 937.5	\$ 897.1
Bonds	66.6	90.5	91.9	50.9	44.8
Non-Indian agriculture 9(d) debt	88.7	88.7	88.7	88.7	88.7
Other liabilities	252.0	264.0	230.2	220.6	219.5
Total Liabilities	1,451.2	1,426.4	1,353.7	1,297.7	1,250.1
Deferred Inflow					
Customer deposits	43.2	52.1	57.1	43.4	32.2
Pension valuation	16.7	10.4	10.4	10.4	10.4
Total Deferred Inflow	59.9	62.5	67.5	53.8	42.6
Net Position					
Investment in Capital Assets, less related debt	251.2	273.0	329.1	360.9	396.1
Restricted	75.1	75.6	88.1	101.6	118.8
Unrestricted	461.7	541.8	607.5	686.0	791.5
Total Net Position	788.0	890.4	1,024.7	1,148.5	1,306.4
Total Liabilities, Def Inflows & Net Position	\$ 2,299.1	\$ 2,379.3	\$ 2,445.9	\$ 2,500.0	\$ 2,599.1

TOTAL REVENUES

(Millions)

	2019	2020	2021	2022	2023
	Actual	Actual	Projection	Budget	Budget
General Fund Operating					
Water O&M charges	186.5	172.7	189.1	234.5	248.7
Water service capital charges	28.1	39.9	77.2	36.7	41.0
Power & BDF revenues	52.7	16.1	7.9	8.0	8.1
Other revenue	2.2	3.1	1.8	1.9	2.2
Total General Fund Operating	269.5	231.8	276.0	281.1	300.0
General Fund Non-operating					
Property taxes	76.7	82.2	86.9	92.1	97.2
Interest and other	18.9	16.3	19.5	8.0	7.6
Total General Fund Non-operating	95.6	98.5	106.4	100.1	104.8
General Fund Total	365.1	330.3	382.4	381.2	404.8
Other Funds and Accounts					
CAGRD	45.9	44.5	65.4	55.4	62.6
Supplemental Water	0.3	0.3	-	0.1	0.1
Captive Insurance	9.6	10.5	11.0	11.7	12.7
Eliminations	(21.6)	(20.7)	(43.7)	(28.2)	(29.7)
Total Revenue	\$ 399.3	\$ 364.9	\$ 415.1	\$ 420.2	\$ 450.5

All Funds by Revenue Type (\$ Millions)

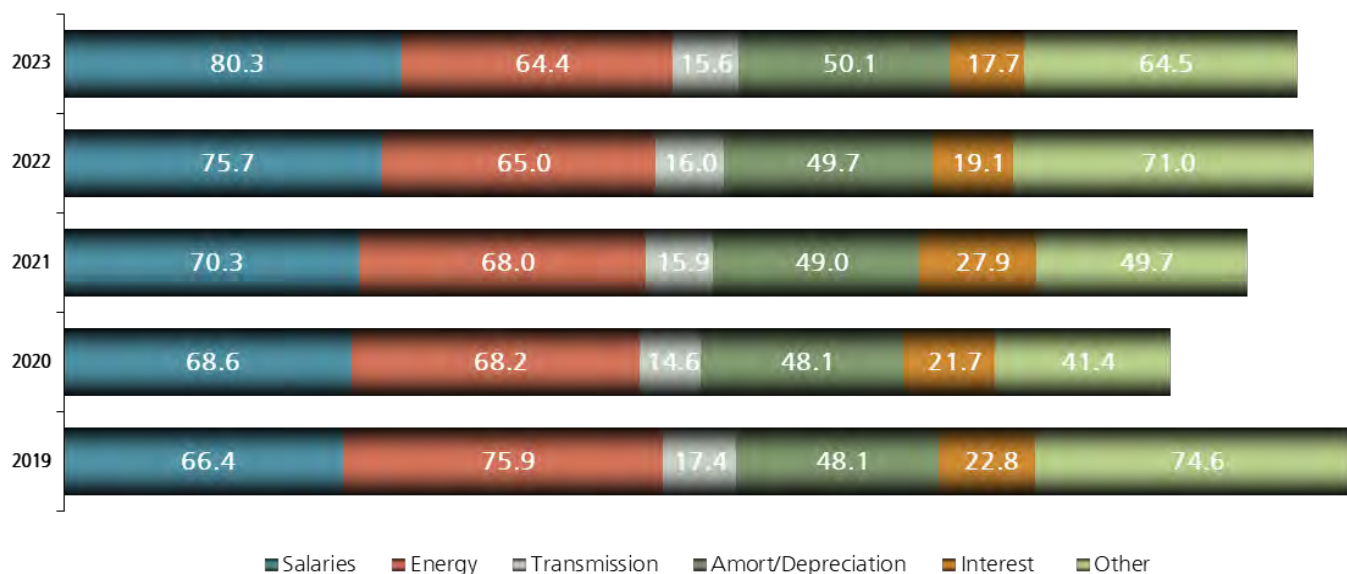


TOTAL EXPENSES

(Millions)

	2019	2020	2021	2022	2023
	Actual	Actual	Projection	Budget	Budget
General Fund Operating					
Salaries and related costs	\$ 65.3	\$ 67.6	\$ 69.2	\$ 74.3	\$ 78.8
Pumping energy	75.9	68.2	68.0	65.0	64.4
Transmission	17.4	14.6	15.9	16.0	15.6
Amortization and depreciation	48.1	48.0	48.9	49.6	50.1
Other expenses	69.0	31.0	36.5	64.7	64.4
Total General Fund Operating	275.7	229.4	238.5	269.6	273.3
General Fund Non-operating					
Interest and other	27.0	27.6	37.8	26.4	18.1
Total General Fund Non-operating	27.0	27.6	37.8	26.4	18.1
General Fund Total	302.7	257.0	276.3	296.0	291.4
Other Funds and Accounts					
CAGR	16.0	17.7	38.4	17.7	19.2
Supplemental Water	-	-	-	-	-
Captive Insurance	8.1	8.6	9.8	11.0	11.7
Eliminations	(21.6)	(20.7)	(43.7)	(28.2)	(29.7)
Total Expenses	\$ 305.2	\$ 262.6	\$ 280.8	\$ 296.5	\$ 292.6

All Funds by Expense Type (\$ Millions)

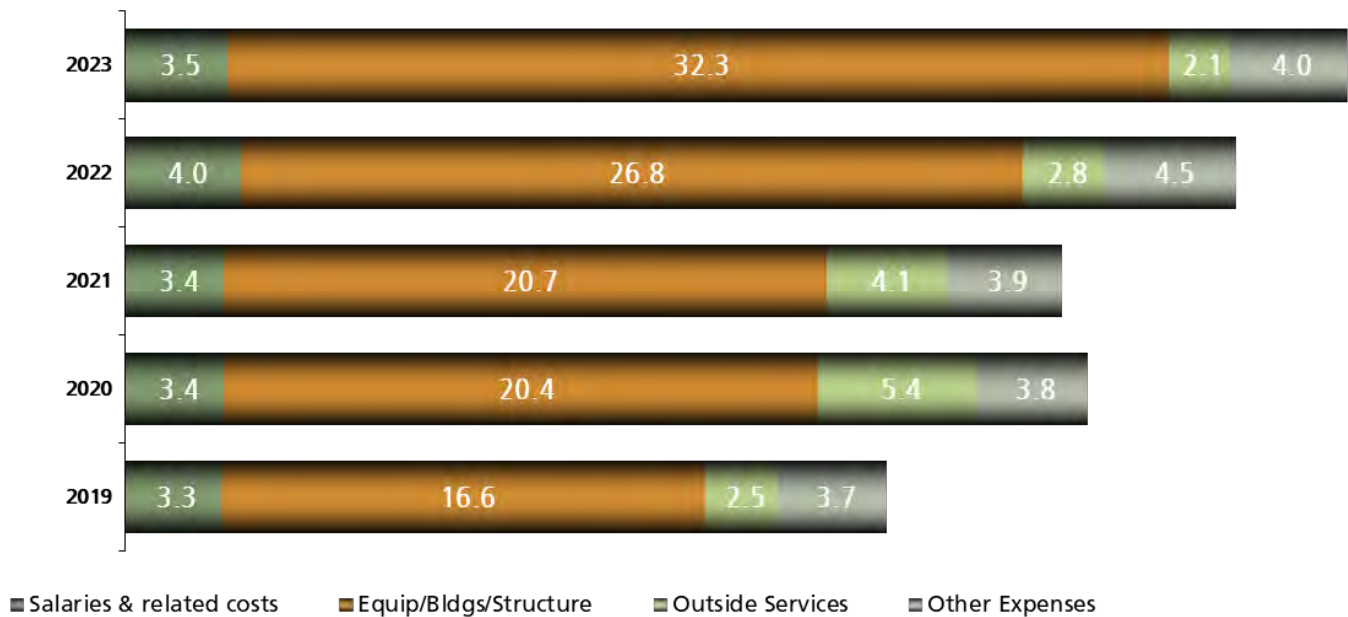


CAPITAL SPENDING

(Millions)

	2019	2020	2021	2022	2023
	Actual	Actual	Projection	Budget	Budget
Salaries and related costs	\$ 3.3	\$ 3.4	\$ 3.4	\$ 4.0	\$ 3.5
Equipment, buildings, and structures	16.6	20.4	20.7	26.8	32.3
Outside services	2.5	5.4	4.1	2.8	2.1
Materials, supplies & other expenses	0.4	0.3	0.4	0.2	0.2
Capitalized interest	-	-	-	-	-
Overhead expenses	3.3	3.5	3.5	4.3	3.8
Total Capital	\$ 26.1	\$ 33.0	\$ 32.1	\$ 38.1	\$ 41.9

Capital Spending by Type (\$ Millions)





Colorado River—Havasupai Falls

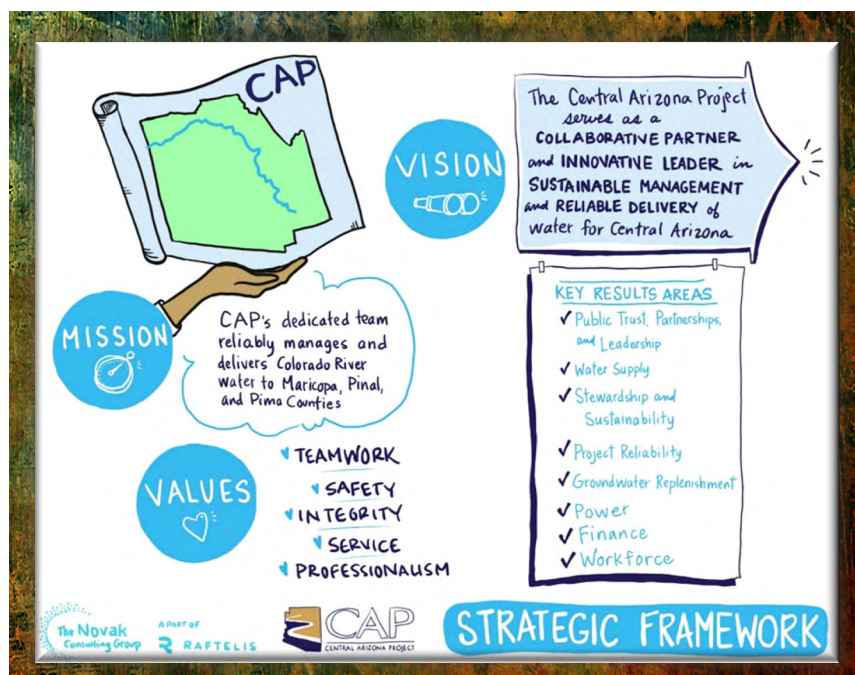
2022 BOARD STRATEGIC PLAN

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

In 2019-2020, the Board developed a new Strategic Plan, facilitated by external consultants. The process included several Board retreats, input from employees, and two rounds of stakeholder forums. Implementation of the new plan will begin in 2022.

The Plan provides high-level strategic guidance to the organization and defines CAP's Mission, Vision and Values. It also defines eight Key Result Areas (KRAs) and identifies Strategic Issues for each area. This hierarchy of issues serves as the context for many other planning activities at CAP, including the biennial budget, the "Big 5" organization-wide objectives, Board reports and employee performance goals. As part of CAP's two-year budget process, staff link the Board Strategic Plan to the biennial Business Plans to ensure that organizational goals are consistent with the strategic direction provided by the Board.

The Strategic Plan can be found in its entirety at:
<https://www.cap-az.com/documents/board/2022-Strategic-Plan.pdf>



2022 BOARD STRATEGIC PLAN

STRATEGIC DIRECTION

This Strategic Plan serves as a blueprint for future decision making. Furthermore, this plan provides a structure by which annual reviews can be accomplished to ensure that key result areas and strategic issues retain their relevance over time. By laying out a course of action, this Plan represents a disciplined process for making the fundamental decisions that will shape CAP's future.

The Strategic Plan contains the organization's Vision, Mission, Values, Key Result Areas, and Strategic Issues. It addresses CAP's current challenges and helps to ensure continued success in operations and the management of resources and assets.

STRATEGIC PLANNING FRAMEWORK

The Board considered CAP's most deeply held beliefs, which it would like every member of the organization to embrace. Those organization values were then organized in the following Value Statement

Values

- ♦ **Teamwork:** Working together to reach consensus and achieve common goals
- ♦ **Safety:** Keeping coworkers and the workplace safe
- ♦ **Integrity:** Doing the right thing with consistency and dedication
- ♦ **Service:** Caring for the needs of stakeholders, coworkers, and our community
- ♦ **Professionalism:** Delivering superior results

The Mission describes the organization's purpose and role within the service area. After carefully considering these factors, the Board stated:

Ultimately, implementation of this plan will enable CAP to achieve its desired future state as articulated in its Vision, which is:

Mission

CAP's dedicated team reliably manages and delivers Colorado River water to Maricopa, Pinal and Pima Counties

Vision

CAP serves as a collaborative partner and innovative leader in sustainable management and reliable delivery of water for Central Arizona

PROCESS

To develop a new plan for 2022, a process was initiated in November 2019 designed to ensure:

- A shared vision of CAP's ultimate goals. Organizations driven by clear purposes and shared values have a greater capacity to succeed than those that are not.
- Acceptance of the direction and urgency of the strategic and business plans, which will be integrated into the way CAP is operated on a day-to-day basis.

To achieve these conditions for success, CAP's strategic planning process involved input from a broad group of internal and external stakeholders, including Board members, CAP's Management Council, employees, and external stakeholders through a combination of interviews, retreats and online employee survey, and stakeholder forums that included representatives from tribal, municipal and industrial, and agricultural interests.

PROCESS TIMELINE

OCTOBER 2019

President Lisa Atkins announced the plans to create a new 2022 Board Strategic Plan. A consultant was engaged to facilitate the process

DECEMBER 2019 - JANUARY 2020

An online survey of all CAP employees was conducted to gain input on the organization's Mission and Values, with 292 employees completing the survey. Two employee focus groups were conducted to gain additional perspectives.



NOVEMBER 2019

The process kicked off with individual interviews with each Board Member and a session with the Management Council to discuss expectations and understand perspectives about CAP and the future of the organization as it relates to the strategic planning process.

FEBRUARY 2020

The Board met for the first Strategic Planning Retreat, which focused on governance. The discussion allowed the Board to address open questions on roles, responsibilities and relationships of the Board and staff that were brought up during the Customer Service Task Force in 2018.

PROCESS TIMELINE_(CONT'D)



MARCH 2020

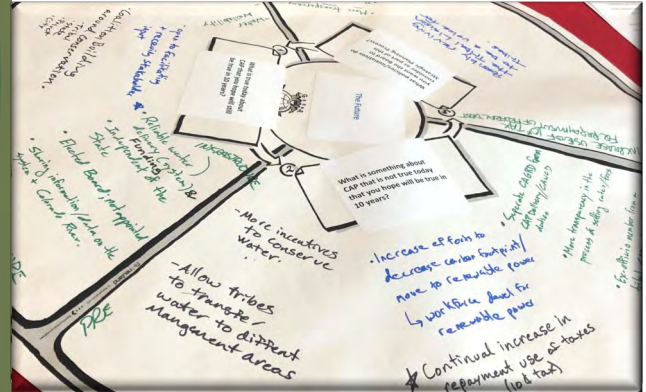
Management Council met in a facilitated session to develop draft Mission and Values statements, informed by the employee input collected in December and January.

Three external Stakeholder Forums were held in locations throughout the CAP service area (Phoenix, Tempe, and Tucson) to solicit input on CAP, the existing strategic plan, and the future of the organization.



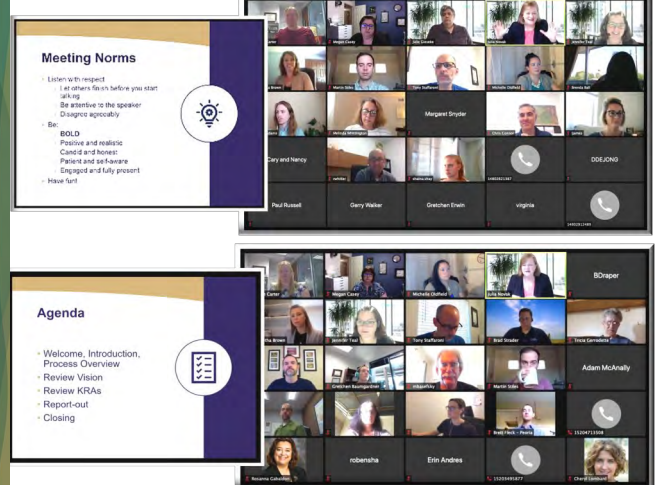
JUNE 2020

The Board met for the second Strategic Planning Retreat to develop a Vision Statement, review stakeholder feedback, and agree on KRA's and Strategic issues for the new Plan, forming a draft framework.



MAY 2020

The facilitator met with each department at CAP to solicit input on the Key Result Areas from the previous plan and discuss ideas regarding strategic priorities for 2022 -2027. Board Members participated in a survey on important priorities within the KRA's.



JULY 2020 - AUGUST 2020

Two external Stakeholder Forums were held virtually to solicit input on the draft framework of the Plan. Board members had the opportunity to have an additional individual interview with Facilitator regarding the draft framework.

PROCESS TIMELINE_(CONT'D)

SEPTEMBER 2020 - OCTOBER 2020

The Board met in September for the final Strategic Planning Retreat to refine the Vision Statement, discuss and refine the Mission and Values Statements proposed by Management Council, review stakeholder feedback on the draft framework, and refine the KRA definitions and Strategic issues.



NOVEMBER 2020-DECEMBER 2020

The final Plan framework was presented to the Board at the regular November meeting to allow public comment. On December 3, 2020, the CAWCD Board of Directors unanimously adopted the 2022 Board Strategic Plan.

IMPLEMENTATION

CAP Staff will develop action plans to implement the Plan beginning with the 2022-23 Business Plan and continuing on the biennial budget cycle through the end of 2027. Reports will be provided regularly to the Board.

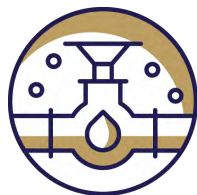


STRATEGIC PLAN

Key Result
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Strategic Issue

Providing a reliable CAP water supply for the short-and long-term



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Address impacts from Colorado River drought and overallocation
Actively participate in plans and support relationships to maintain a healthy Colorado River system
Facilitate deliveries of non-Project water through the CAP system, pursuant to the system use agreement
Collaborate in the development of new water supplies and other water augmentation efforts
Work collaboratively in the recovery of water stored by the Arizona Water Banking Authority



STRATEGIC PLAN

Key Result
Area

Strategic Issue

Building a reliable, diversified, and sustainable energy portfolio



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Address dynamic energy markets as they affect CAP power acquisitions

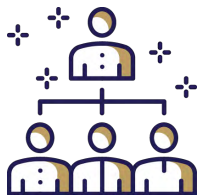
Actively engage in the transmission market to ensure access to diversified, low-cost energy resources

Take advantage of developments in energy efficiency and renewable resources, including storage

Minimize CAP's carbon footprint, consistent with CAP's mission



Being a premier employer that attracts and retains an exceptional and diverse workforce



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Develop recruitment strategies to best support CAP's hiring needs

Implement programs to support building a diverse, inclusive, and representative workforce, emphasizing programs to attract Tribal candidates

Engage in innovative professional development opportunities to enhance CAP's workforce

Monitor CAP's workforce climate, employee well-being, and engagement and act upon identified areas needing improvement

Review and update policies and procedures to protect CAP employees



STRATEGIC PLAN

Key Result
Area

Strategic Issue

Serving as proactive leaders in sustainability and responsible, collaborative stewards of CAP Colorado River supply



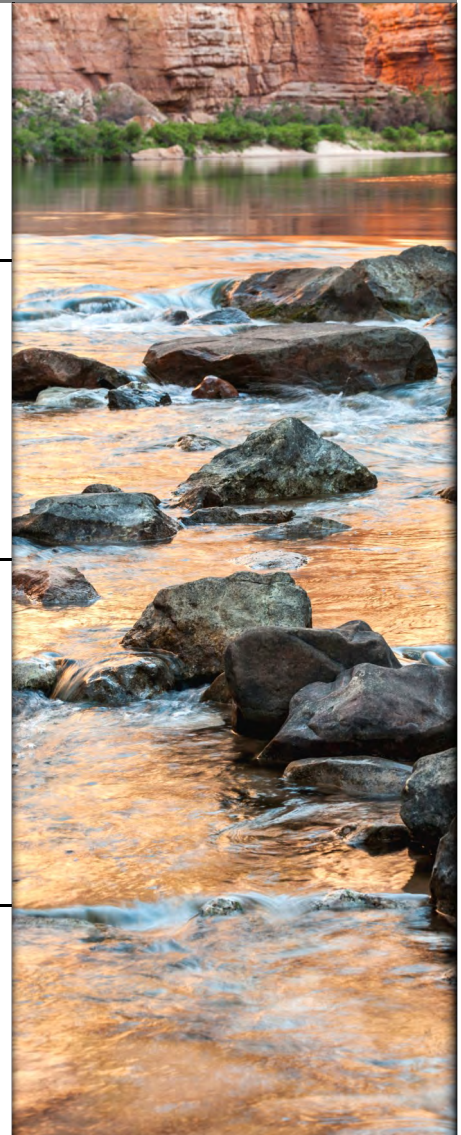
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Implement plans for climate change adaptation and mitigation and development plans to address climate-related impacts

Explore opportunities to support sound water management within CAP's jurisdiction and through partnerships

Support the Multi-Species Conservation Plan (MSCP) and explore future opportunities related to species and habitat conservation

Evaluate and consider the relevant environmental impacts of moving non-Project water

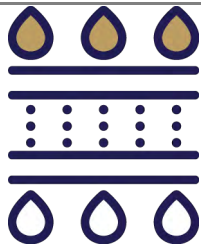


STRATEGIC PLAN

Key Result
Area

Strategic Issue

Fulfilling CAP's groundwater replenishment responsibilities in accordance with statutory requirements



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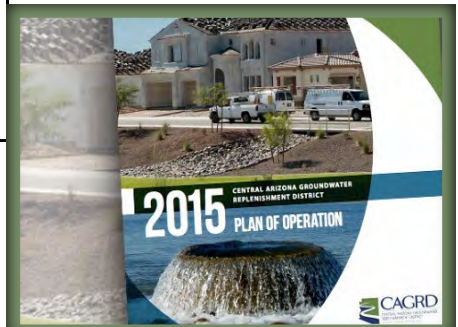
Responsibly meet CAP's statutory replenishment obligation

Participate actively in dialogues regarding the resilience and long-term role of the Central Arizona Groundwater Replenishment District (CAGRD)

Consider the hydrologic relationship between member pumping and CAGRD replenishment

Ensure continued effective management, reasonable pricing, and financial viability of CAGRD

Enhance public outreach and education regarding the importance of water conservation and groundwater replenishment



STRATEGIC PLAN

Key Result
Area

Strategic Issue

Maintaining long-term financial strength to achieve CAP's goals and being prepared to address opportunities or challenges



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Generate sufficient revenue to repay the Federal Government

Manage capital and operations and maintenance budgets, debt, revenues, tax rates, water rates, and reserves effectively and transparently

Solicit and incorporate input from constituents, customers, and stakeholders on rate setting, capital charges, and taxes

Develop risk management and procurement practices to maximize financial exposure and maximize value



Providing reliable and cost-effective operations, maintenance, and replacement of CAP infrastructure and technology assets



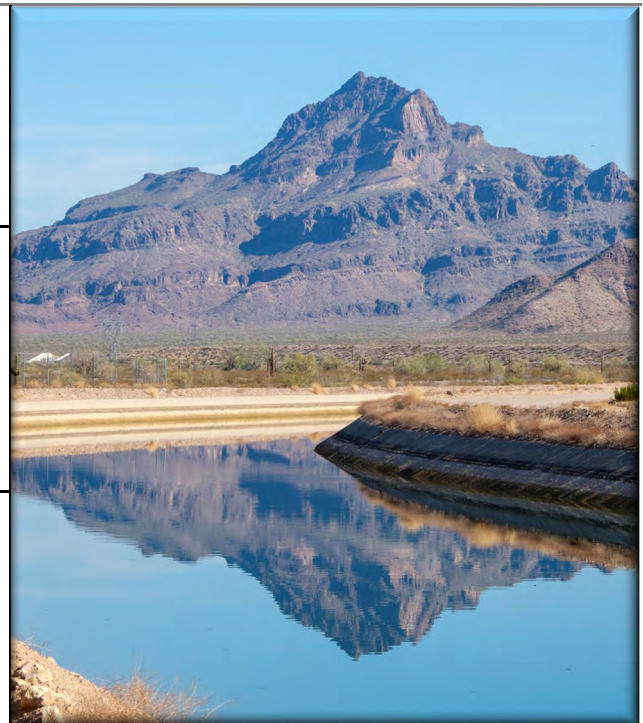
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Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability

Maintain and improve the security and reliability of information technology systems

Advance focused plans to support business continuity



STRATEGIC PLAN

Key Result Area

Strategic Issue

Earning and preserving public trust, building and maintaining partnerships, and providing informed water management leadership



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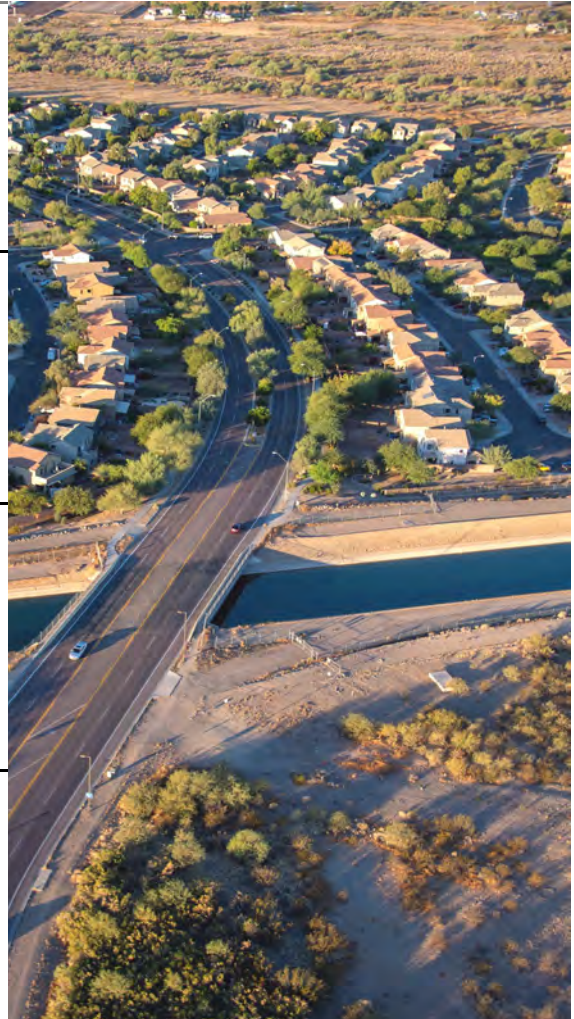
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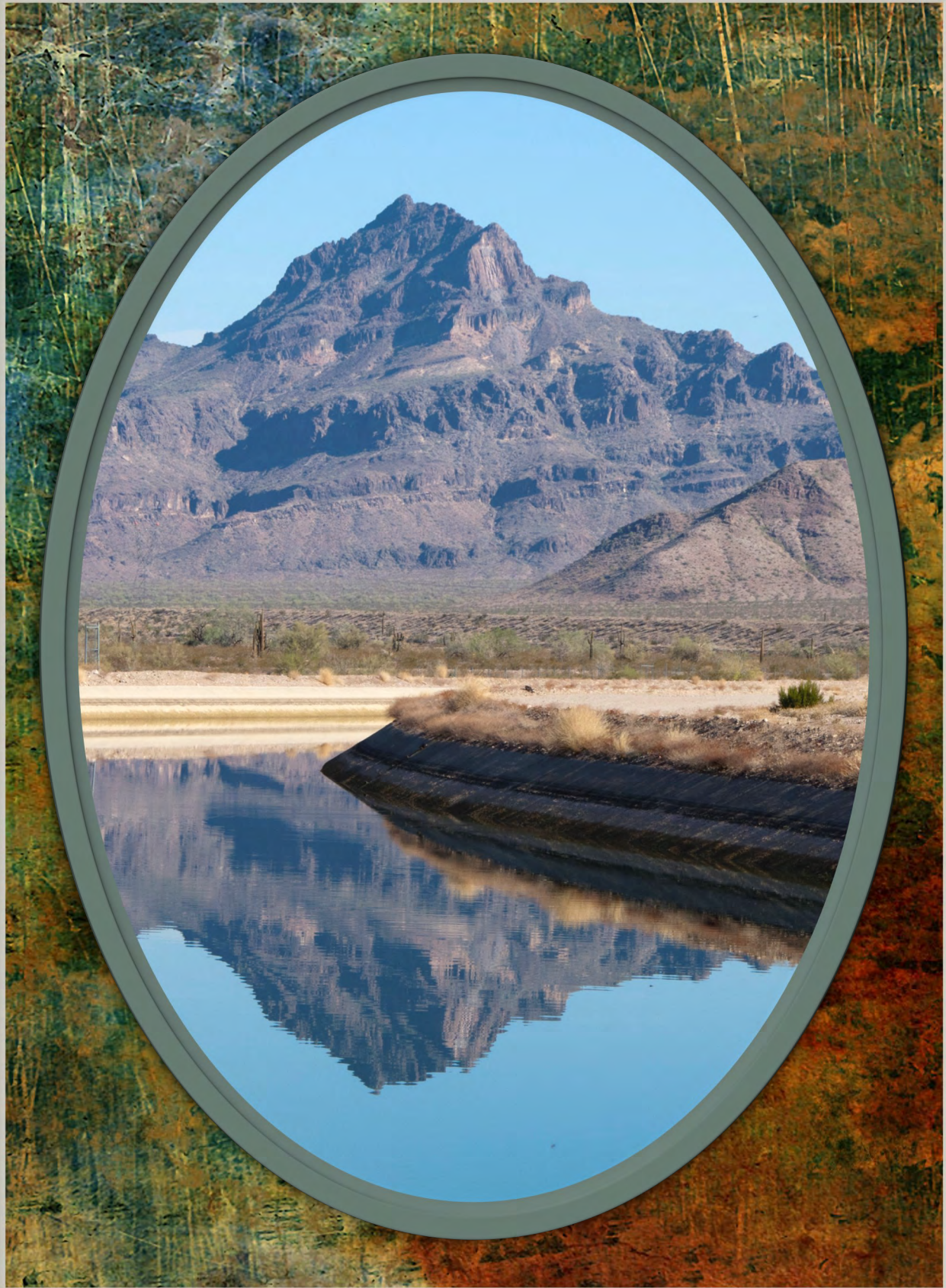
Recognize the role of the elected CAP Board in balancing the competing needs among customers, taxpayers, and stakeholders

Increase awareness of CAP and engage the general public on CAP's role in the management of Arizona's water

Seek feedback and identify opportunities to collaborate and improve customer service

Continue active Board and staff engagement with constituents, stakeholders, and other water entities





Canal at AZ Route 87

PERFORMANCE MEASURES

“BIG 5”

ORGANIZATION-WIDE GOALS

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

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

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



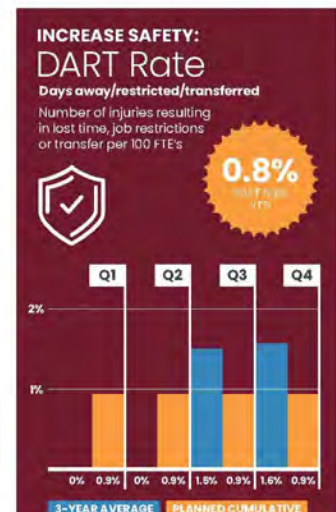
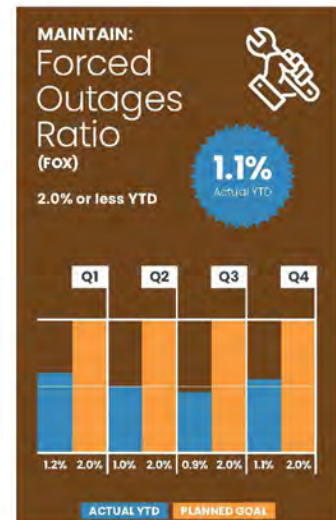
A distinctive “Big 5” symbol was designed to label important communications related to the organization-wide goals. While each of the “Big 5” goals includes one or more detailed, measurable objectives, the basic premise of each goal is captured by a characteristic action verb.

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

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

For 2019, CAP's "Big 5" goals remained the same as previous year for the goals related to water delivery and protecting Lake Mead; the water delivery target for 2019 are 1,352,778 acre-feet and due to mandatory reduction and a result of DCP, the water protection goes to zero. CAP's financial goal for 2019 remained the same, completing planned work within 95-102% of budget. In regard to Project Reliability goals, minimizing forced outages (FOX) and compliance with outage work plans continues, but the outage compliance goal was increased from 85% to 90%. CAP also increased its goal of completing required safety awareness and health training during the year to 95%.

The year 2020 was unlike anything CAP has ever faced as an organization. It was particularly difficult to navigate our Big 5 Goals, which were set before any of us had ever heard of COVID-19. Last March, it was briefly discussed that Big 5 for 2020 should be suspended, because the challenge would be too great. In the end, that idea was rejected because management knew CAP employees and culture were capable of overcoming nearly anything. CAP and its employees did not disappoint. When the final reliability metrics came in, it was astonishing to see that not only did we meet the Big 5 goals in the midst of a global pandemic, we had one of our best years ever!



Similarly, because the pandemic caused management to defer and delay large capital projects, it was no longer appropriate to count that as part of the Big 5 goals. However, our operating expenditures remained easily within our stated goal. We were also successful at making our water delivery goal and our Director Goals. Two areas during 2020 that CAP did not meet its goal was with department visits, and Days Away & Restricted Time (DART). This will be an area of focus going forward. Additionally, CAP would like to redouble their safety efforts. During a year in which CAP was recertified for VPP, our DART rate actually went in the wrong direction. In addition to CAP standard “Big 5” goals, similar to what occurred in 2020, there are additional Director Goals that will be part of the Big 5 program. These Director Goals would include:

Centralized Maintenance: Review the 5-Year preventative maintenance and condition assessment process, and develop a report that will measure compliance on completion of condition assessment reports. Develop and present an annual “State of the Fleet” report that analyzes fleet size, vehicle types, cost-per-mile, additions and disposals.

Employee Services: Improve the health and well-being of employees in the Employee Services group by: 1) all employees participating in at least two Walker Tracker challenges; 2) all employees participating in at least two wellness training classes; and 3) writing a brief summary of the benefits you realized during the year.

Field Maintenance: Complete major frequency PMs (5- and 6-year) with a PM compliance end date in 2021, and provide equipment condition data for main unit motors, pumps, and transformers at a rate of 90% or higher.

Finance and Administration: Through Analytics & Information Management (AIM) Program, establish an Enterprise Data Governance Committee and structure with processes that enable CAP to prioritize and deliver data requests based upon business value.

Legal: Work to raise awareness, through written employee communications and/or meeting presentations, regarding CAP policies regarding: ethical business practices; use of email; making recordings; and photographing at CAP public records.

Operations, Power, and Engineering: Manage water diversions, deliveries, energy acquisition and system outages for projects, asset modifications, and lands cases, to achieve a full-year pumping energy rate that is at, or below, our published pumping energy rate component.

Public Affairs: Continue to develop the CAP University Program and successfully offer four courses in 2021.

Water Policy: Water Policy will emphasize a greater connection with the organization, and leadership for all team members within the division during the continued mandatory remote work environment in 2021.

The 2020 edition of the “Big 5” full year reporting of the Organization-Wide Goals is shown on the previous page, and the midyear 2021 “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



2021 DELIVERIES

OPTIMIZE

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

This quantity will be measured in acre-feet of deliveries of CAP water to customers set at the beginning of the year based upon orders placed with CAP Water Control Department. The quantity may be adjusted during the year based on changes in customer orders approved / recorded by the CAP Water Control. The "Protection Volume" is the acre-feet to be left in Lake Mead during 2020. This volume is measured at year end.

For 2021 the adjusted Customer Delivery Target is 1,393,369

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:

1,393,369 in Water Management System (WMS) based on 2021 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.

OPTIMIZE: Water Deliveries

Quarterly
(in Acre Feet)



ACTUAL CUMULATIVE
748,303

Q2

ACTUAL CUMULATIVE
227,720

Q4

PLANNED CUMULATIVE
1,393,369

Q3

PLANNED CUMULATIVE
1,213,009

Q2

PLANNED CUMULATIVE
780,449

Q1

PLANNED CUMULATIVE
277,505

ACTUAL YTD

PLANNED CUMULATIVE



2021 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 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.

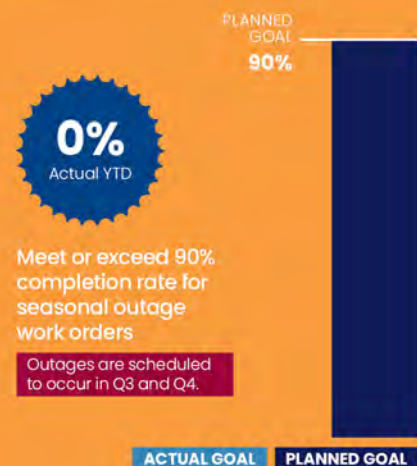
For 2021 the Outage Compliance goal is to meet or exceed 90% completion rate for seasonal outage work orders. The goal for Forced Outages is 2.0% or less.

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

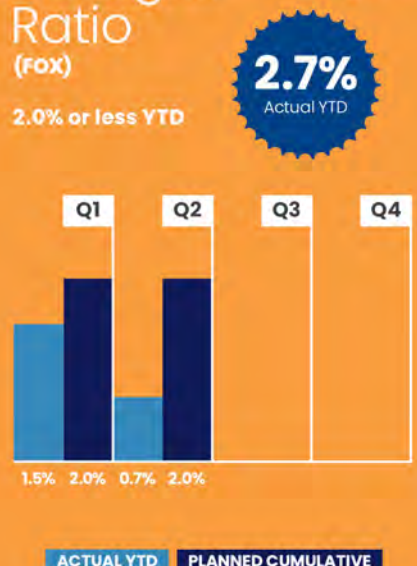


Outages are planned around assessing the condition of critical equipment, conducting critical maintenance, or modifying assets that are normally required to operate continuously to meet customer deliveries. This metric does not include routine items such as meetings, weekly and monthly PMs, etc. Finished work must be reported as completed within 30 days following the outage.

MAINTAIN: Scheduled Outage Compliance (sox)



MAINTAIN: Forced Outages Ratio (Fox)





2021 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.

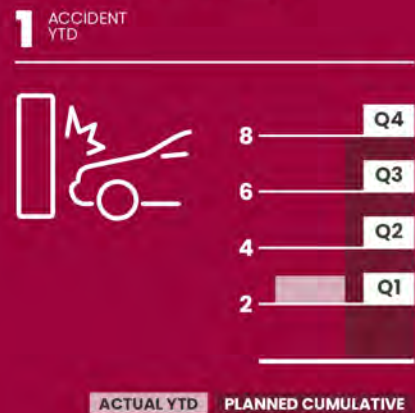
For 2021 the goal is to be at or below 3 prior year average



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

Not to exceed 8 PVA annually

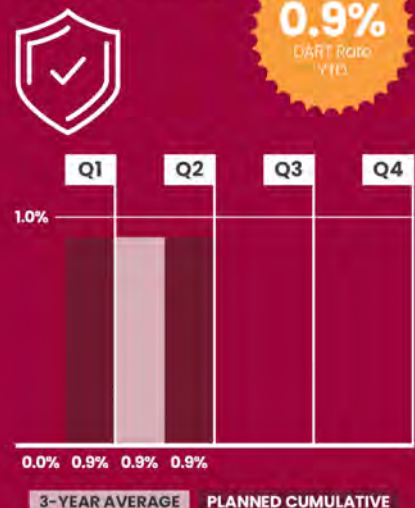


Lost time (DART) is total lost work cases (lost work days and restricted day cases) per 200,000 hours worked

INCREASE SAFETY: DART Rate

Days away/restricted/transferred

Number of injuries resulting in lost time, job restrictions or transfer per 100 FTE's





2021 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 2021 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

Includes both Operating Expense and Capital Expenditures being no more than 2% over or less than 5% under



11%
Under planned
budget YTD

(\$ in thousands)

ACTUAL CUMULATIVE		PLANNED CUMULATIVE			
28,135		59,100			
Q1	Q2	Q1	Q2	Q3	Q4
32,577	66,581	102,797	141,360		
ACTUAL YTD		PLANNED CUMULATIVE			

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



2021 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.

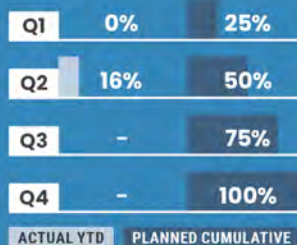
For 2021 the goal for promoting cultural values, communication, teamwork and collaboration within CAP is at least 95% of Managers and Directors complete 2 in-field visits during the year.

Communication, teamwork & collaboration across all units within CAP

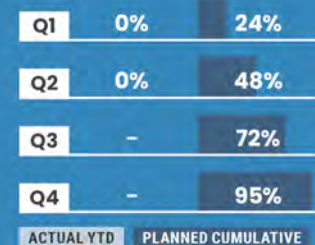
CONTROL: Cultural Values



Number of Cost Centers visited by management



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



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

FINANCIAL PLANNING & CONTROLS

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

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

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

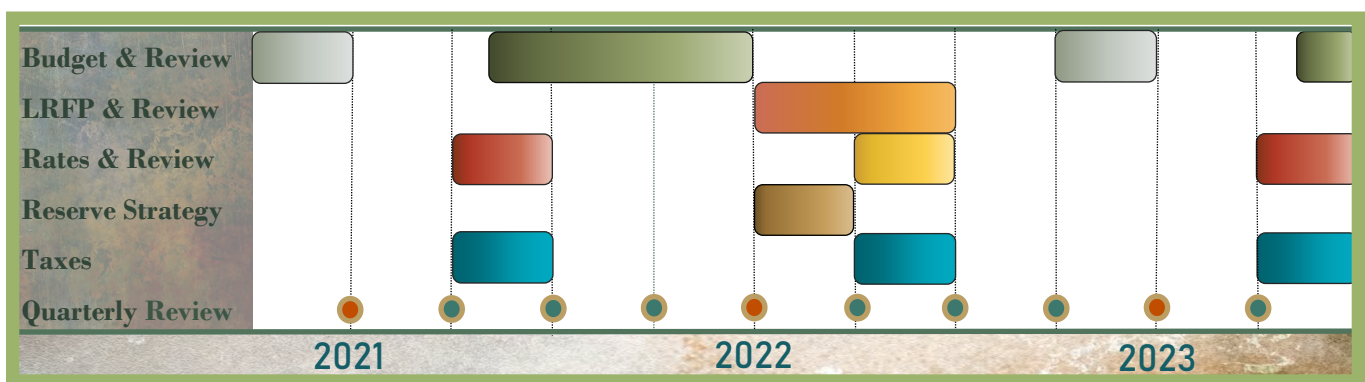
CAP uses enterprise-wide performance measurements to evaluate accomplishment of its strategic objectives.



BIENNIAL FINANCIAL PLANNING PROCESS

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

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



The 2022 / 2023 biennial budget covers two one-year periods. As the first year (2022) draws to a close, the second year (2023) of the budget will be reviewed to determine if the budget should be amended to incorporate any significant impacts. For further detail, see Biennial Budget Amendment Process on page 3-26.

BUDGET BASIS & FORMAT

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

All financial statements contained in the budget are presented on a comparative basis, including two years of actual activity for 2019 and 2020, financial projection for 2021 and two years of budget activity for 2022 and 2023. The Statement of Net Position summarizes current and long-term obligations (liabilities) and assets available to meet those obligations, as well as deferred inflows and deferred outflows. The Statement of Revenues, Expenses and Changes in Net Position (income statement) summarize operating and non-operating expenses, and the revenues available to cover those expenses resulting in the change in net position.

BIENNIAL BUDGET PROCESS AND CALENDAR

The 2022 / 2023 budget process began in March 2021 with the distribution of the new Strategic Plan and the associated action plans to managers and supervisors, in order to provide the basis for development of their budgets and business plans.

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



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

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

Following approval of the 2022 / 2023 budget, staff begins work on the next LRFP, incorporating any new strategies, objectives and trends identified during the budget process. Longer-term issues are evaluated to determine the impact on CAP operations and finances, including reserves and rates. This work then becomes the launching point for the subsequent budget.

FINANCIAL PLANNING CALENDAR

2022 / 2023 BUDGET CYCLE	REQUESTED BUDGET	April-May 2021	Departments develop and submit Strategic Plans
		June-August 2021	Cost centers develop budget and submit to Finance for review & consolidation
		August - September 2021	General Manager review & changes CAWCD Board Officers’ review
	STAFF PROPOSED BUDGET	September 30, 2021	Consolidate & mail budget to Board
		October 14, 2021	Budget briefing to review proposed 2022/2023 budget
	COMMITTEE RECOMMENDED BUDGET	October 21, 2021	Finance, Audit & Power Committee meeting to review budget & make recommendation to Board
	BOARD APPROVED BUDGET	November 4, 2021	Board of Directors review & approval of budget
LONG-RANGE PLANNING CYCLE	LONG-RANGE FINANCIAL PLAN RATE-SETTING RESERVE PLANNING	June 10, 2021	Board of Directors reviewed and approved Final 2022-2026 rates update & 2021/2022 tax rate
		January-March 2022	Identify & analyze strategic issues, develop LRFP to include reserve targets, 2021-2026 rate & tax recommendation
		February 17, 2022	FAP Committee review strategic reserve targets & make update recommendation (as necessary)
		April 1, 2022	Preliminary 2023-2028 rate schedule posted
		April 14, 2022	Rate/Tax briefing to review staff preliminary 2023-2028 rates & 2022/2023 tax recommendation
		April 21, 2022	Finance, Audit & Power Committee to review staff preliminary 2023-2028 rates & 2022/2023 tax recommendations & make recommendations to Board
		May 5, 2022	Board of Directors adopt Preliminary 2023-2028 rates & 2022/2023 taxes
		June 2, 2022	Board of Directors approve Final 2023-2028 rates & 2022/2023 tax rate
		June 1, 2023	Board of Directors review and approve Final 2024-2028 rates update (as necessary) & 2023/2024 tax rate
2023 BUDGET AMENDMENT		August 2022	Finance develops 2023 budget review and amendment (as necessary)
		October 2022	Finance, Audit & Power Committee review 2023 budget amendment and recommend update (as necessary)
		November 2022	Board of Directors review & approval of 2023 budget amendment (as necessary)

BUDGET GUIDELINES

Organization-wide assumptions are shown in the Biennial Budget Overview on page 2-1. The following budget guidelines and assumptions were conveyed to cost centers to develop the 2022 / 2023 budget:

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



BUDGETARY CONTROLS

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

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

- Up to 15% or \$1 million, whichever is less, within any fund, provided that the total expense within the affected fund does not exceed budget by the greater of \$250,000 or 2% of the annual budget.
- In the case of the General Fund, non-operating expenses are considered separately from operating expenses.
- Because of market volatility, energy and transmission are excluded from this process and administered by an Energy Risk Oversight Committee.
- Central Arizona Groundwater Replenishment District (CAGR) Water for Recharge to meet obligations is excluded.
- Due to its contractual and legal nature, underwriting expenses of the Captive are excluded from budgetary controls.
- Board approval is required for contracts over \$300,000.

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 \$300,000.

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

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

BIENNIAL BUDGET AMENDMENT PROCESS

Once the budget is approved by the Board, it is CAP's policy to amend only the second year of the budget if necessary. Prior to the beginning of the second budget year (i.e., budget year 2023), staff will request that the Board review and potentially

amend the General Fund budget for items that have significantly changed and will cause budgetary control parameters to be exceeded.

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

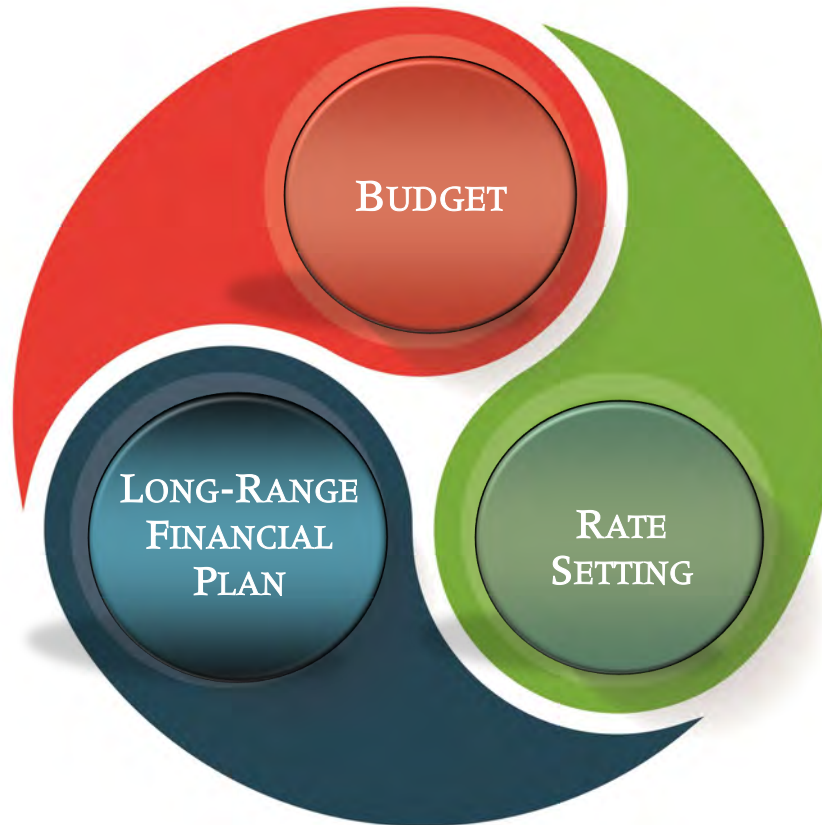
Any unbudgeted work subsequently approved by the Board is to include incremental budget variance authorization if needed. No budget amendments have been recommended since CAP began producing two-year budgets in 2006 / 2007.



OTHER PLANNING PROCESSES

FINANCIAL PLANNING & MANAGEMENT FRAMEWORK

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



LONG-RANGE FINANCIAL PLAN

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

The LRFP incorporates the latest information available from the recently completed budget, annual financial results and economic indices. Major assumptions that are reviewed and revised include water availability and delivery volumes, energy requirements and pricing, staffing and capital programs. After its completion, the first 6 years of the plan are communicated to the Board of Directors and customers as part of 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., 2023), provisional rates for the next year (i.e., 2024) and advisory rates for the subsequent four years (i.e., 2025-2028). CAP communicates key items, such as capital spending, operational expenses and projected water volumes as well as preliminary firm, provisional and advisory rates through rate briefings, public board meetings and written briefs. The preliminary rates are adopted or revised to be final rates at the June Board meeting. In the second year of the biennial rate-setting process, the provisional rates become firm unless the Board elects to update them. Like the budget update process, the rate update process is only used if needed. The provisional 2022 rates were reviewed and revised in 2021.

RATE-SETTING GOALS	COST RECOVERY	Water rates are set to recover costs, on a long-term basis, net of other revenue sources
	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
	LEGAL COMPLIANCE	Any rate-making processes and policies must be accomplished in accordance with statutory and contractual requirements

WATER DELIVERY RATES

CAP water rates are based on cost of service. Pumping energy and other water delivery expenses are recovered primarily through separate components of the water delivery rates: (1) Fixed Operation, Maintenance and Replacement, and (2) purchased energy. Water delivery rates take into consideration costs that are funded through other programs and means, such as underground storage, system use, recovery, capital charges, and taxes.

Delivery rates for each year are calculated in advance based on expected water deliveries and related costs. Actual water deliveries can fluctuate considerably due to weather conditions and the availability of water. If actual deliveries fluctuate from the estimate used to set rates, total pumping energy costs will fluctuate, but other water delivery expenses are primarily fixed and will not fluctuate based solely on water delivery volumes. This rationale is the primary rationale in the 2 key rate components. 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. Energy is variable in nature and does not fluctuate significantly on a per acre-foot basis due to changes in water delivery volumes.

The water delivery rate delivered under long-term subcontracts and contracts are reconciled and differences are settled annually. These contracts currently constitute approximately 1.2 million acre-feet annually. This reconciliation process is described below as part of the annual OM&R reconciliation discussion.

CAP includes a "Big R" component for capital replacement, capital improvement projects and Extraordinary Cost projects (those maintenance projects with a cost over \$2 million) 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 on page 3-30.

From 2012 through 2018, CAP collected a rate stabilization component in the OM&R rate. This rate allowed the accumulation of approximately \$30 million in a rate stabilization reserve by the end of 2020. As indicated above, the Fixed OM&R rate is impacted by delivery volume and in the event of a shortage, it increases significantly. Utilization of this reserve is starting in 2022 with the Tier 1 level shortage. It will allow the rate increases to be phased in over a period of two years, rather than all at once. A Customer Workshop was held to determine the preferred utilization period and it was decided that it would be utilized approximately equally over the first 2 years of a shortage, 2022 and 2023. A separate Voluntary Rate Stabilization reduction to which customers contributed is planned to be utilized in 2024.

ANNUAL OM&R RECONCILIATION

The objective of the rate-setting process is to estimate water delivery 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 and Energy rate differences. Shortage mitigation and forbearance programs decrease the water delivery volumes and cause the Fixed OM&R rate to increase in cases where the Fixed OM&R is not collected.



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

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

CAPITAL CHARGES

Municipal and Industrial (M&I) subcontractors are assessed a capital charge on their allocations as specified by their subcontracts. Excess water customers including non-subcontract customers, 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 fee are not delivery costs but are set to assist in repaying CAP’s share of the reimbursable costs for the original construction of the CAP. This charge is combined with other revenue sources, as described in Repayment Obligation on page 3-40, to make up the annual amount due to the federal government.

EVALUATION

AUTHORIZATION PROCESS

Once the Board approves the budget and the new budget year begins, CAP’s management is charged with executing the budget’s business objectives and financial goals. In order to provide ongoing evaluation of individual commitments and costs for compliance with goals and objectives,

CAP has established policies and procedures related to staffing unfilled positions, contracts and purchasing and acquisition of property and capitalization. These policies and procedures apply to all commitments and costs, 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 \$300,000 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 O&M.

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 spending, 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.

RESERVE PLANNING

As part of the two-year financial planning cycle, one of the activities for even years is a review of the Strategic and Working Capital Reserves strategies 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 a self-replenishing reserve used to smooth out timing differences in revenues and spending within each year. Known or planned spending or events are included in the budget and funded on a "pay as you go" basis through water rates and taxes.

Other reserves have been established for specific purposes, such as water storage, rate stabilization and CAGRD and are not included in the Strategic & Working Capital Reserves planning. See Fund Reserves beginning on page 3-41 for a more detailed description.

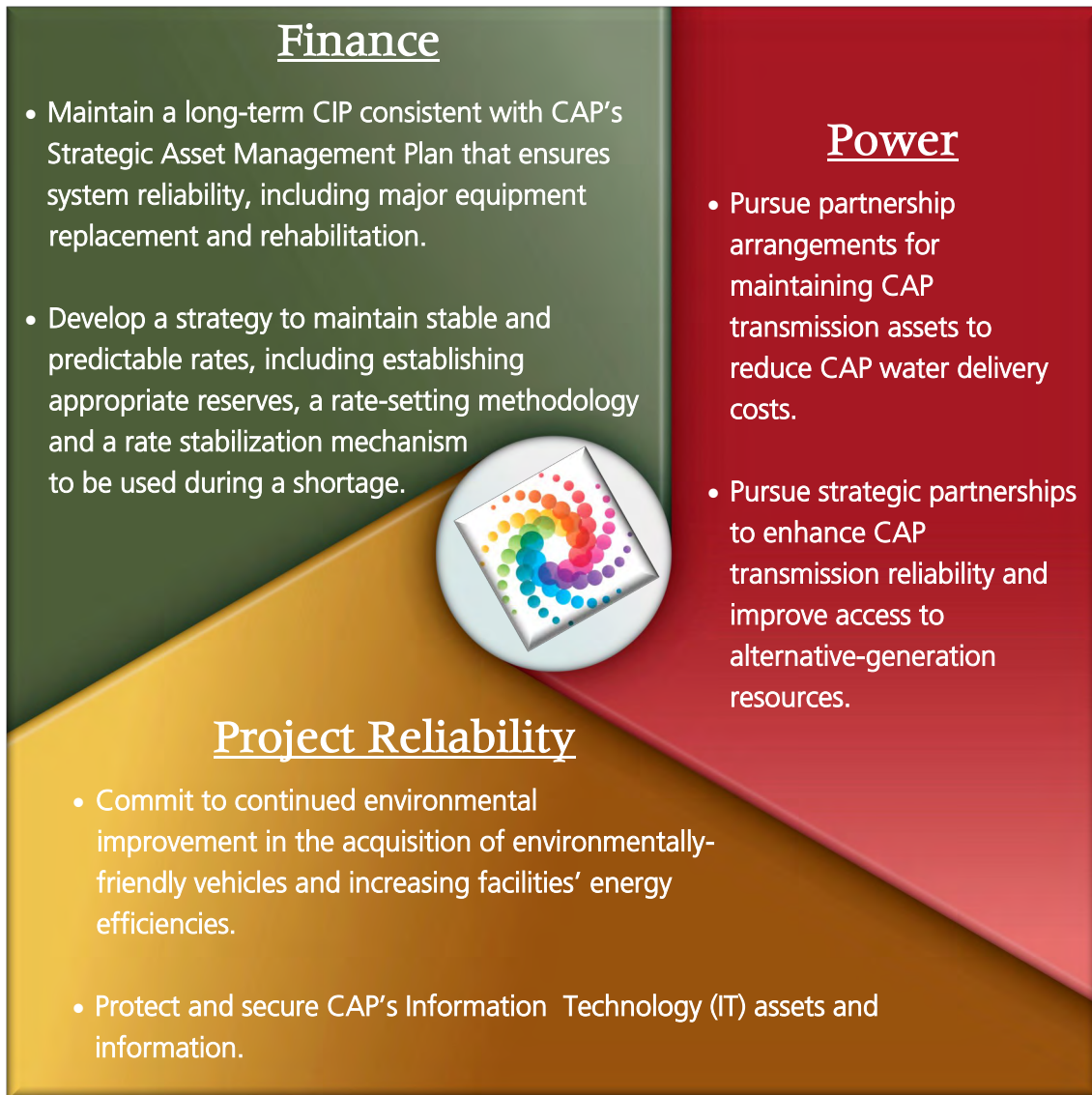
The Board reviewed and updated the Strategic & Working Capital Reserve strategies and targets in April 2020.





CAPITAL PLANNING

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



The six-year capital budget covers the years 2022 through 2027. The Board of Directors is asked to approve capital spending for 2022 and 2023. Capital equipment and projects shown after 2023 are for advisory purposes to inform the Board and constituents of potential future capital budget requirements.

CAPITAL SECTION INCLUDES

A Summary of CIP projects for the budget and advisory years

A summary of capital equipment for the budget and advisory years

A description of each CIP project, its justification, total project cost, funding source, operating impact, and strategic issue and key result area (KRA) that the project will support.

BIENNIAL BUDGETING

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

CAPITAL EQUIPMENT

CAP cost centers begin the capital budget process by identifying specific capital equipment needs for the 2022 / 2023 budget. CAP has a capitalization threshold of \$25,000, so equipment under that amount is expensed. For equipment that exceeds \$100,000, a business justification analysis is performed prior to inclusion in the budget. For the fleet vehicle budget, a separate analysis is performed to determine if vehicles are being utilized per CAP's fleet vehicle policy and to evaluate the need for additional or replacement vehicles. The guidelines established by this policy address the acquisition, assignment, pooling, replacement and disposal of fleet vehicles.

Capital equipment shown during the post-2023 period are advisory to provide an indication of needs for 2024 through 2027. Specific equipment needs will be refined during 2022 and 2023.

CAPITAL IMPROVEMENT PROGRAM

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

CONCEPT/PRIORITIZATION

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

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

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

PROJECT STEERING COMMITTEE OBJECTIVES

Ensure that CAP executes the RIGHT projects, which is based on an evaluation of Strategic Fit (risk) and Opportunity Cost & Organizational Impact

Evaluate project execution options and SELECT the most effective solution

Oversee the EXECUTION of large projects, with a focus on compliance with defined budget, schedule and resource utilization targets

Help MANAGE the overall CAP Capital Budget, by making decisions on the execution of projects to help achieve alignment with the approved budget or seeking additional spending authority from the Board of Directors

ASSESSMENT

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

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

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

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

CIP CONTROLS

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

PSC MEMBERSHIP

Permanent voting members of the PSC include:

- Assistant General Manager Operations, Engineering and Maintenance – Committee Chair
- Assistant General Manager Finance and Administration
- Director of Field Maintenance
- Director of Centralized Maintenance and Reliability
- Director of Operations, Power & Engineering

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

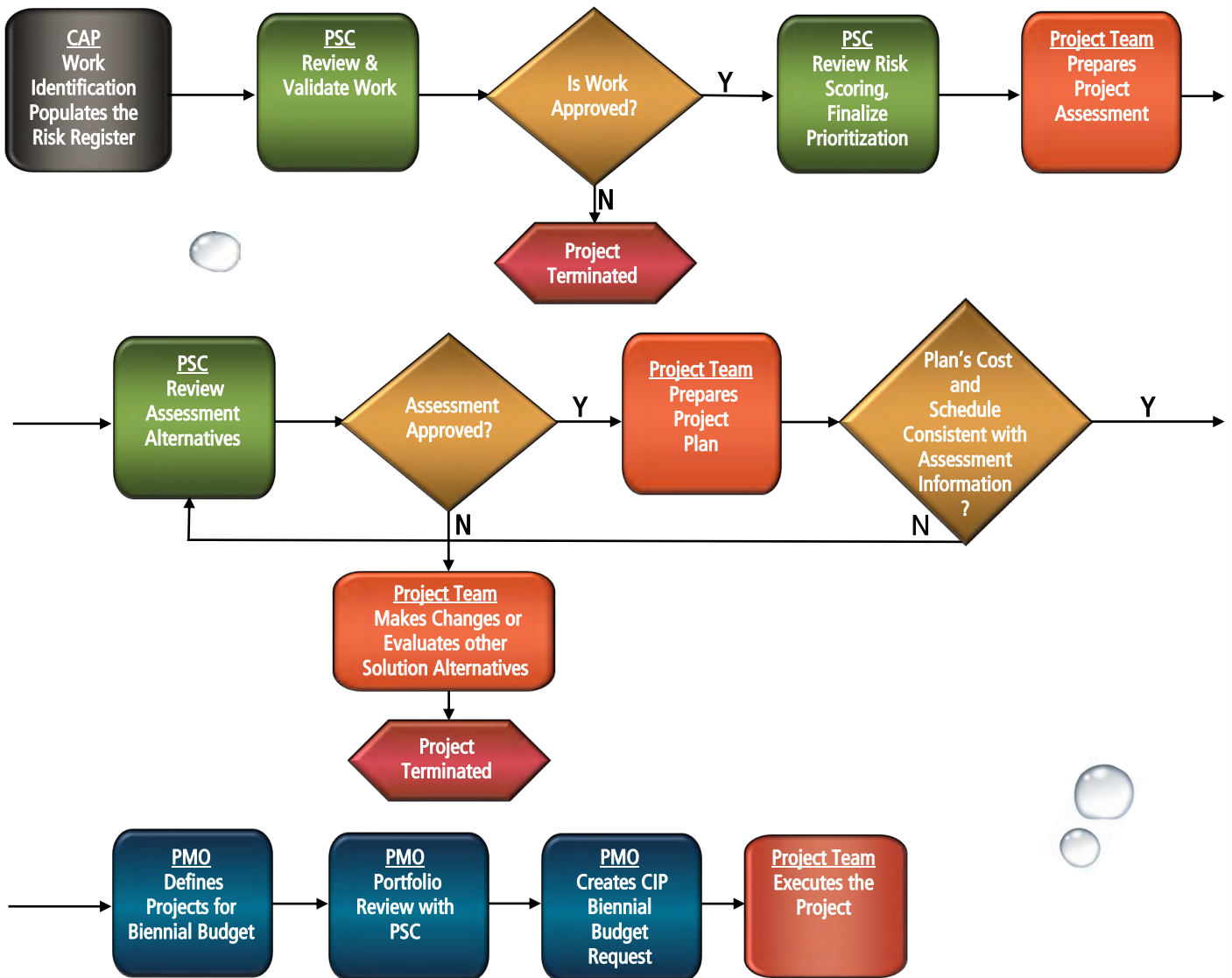
- Manager, Maintenance Control
- Manager, Water Control
- Manager, Finance and Accounting
- Manager, Engineering Services
- Manager, Maintenance West
- Manager, Maintenance South
- Manager, Supply Chain and Facilities
- Manager, Environmental Health and Safety
- Supervisor, Project Management



PSC PROCESS AND THE BUDGET

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

CAPITAL IMPROVEMENT PROGRAM PROCESS



ADVISORY PROJECTS POST-2023

CIP projects listed as advisory projects in the years after the 2022 /2023 budget period include those projects that may either be in the design or construction phases in those years, as well as projects that may still be in the evaluation phase. Throughout the 2022 / 2023 budget period, projects will be assessed and based on appropriate justification, funding and available staff resources. Advisory projects may be implemented during the current budget by the PSC but still maintained within the capital budget guidelines. Post-2023 projects will be modified based on need as determined by the state of the equipment through condition-based monitoring and other determining factors. Additional projects will be added while others may be deferred as conditions necessitate. Cost projections are based on projects of similar historical experience and will be refined as the project is brought into the current planning timeframe and therefore will vary from the stated amount. Capital spending for outer years will likely be higher than current estimates indicate as assets are assessed.



CAP Canal along Norterra Parkway in Phoenix

DEBT AUTHORITIES & OBLIGATIONS

BONDING AUTHORITY

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

ARS § 35-451 *ET SEQ.*—GENERAL OBLIGATION BONDS

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

ARS § 48-3713.01—WATER STORAGE BONDS

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

ARS § 48-3751 *ET SEQ.*—REVENUE BONDS

- Provides: CAWCD may pledge revenues, including revenues from the sale of services or from contracts and fees from water, toward the payment of bonds. However, CAWCD may NOT pledge taxes or assessments on or against property toward the payment of revenue bonds issued under this article of Title 48. Further, if CAWCD issues revenue bonds to fund CAGRDR costs, such bonds are only repayable from revenues generated or collected from members of the CAGRDR.
- 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. A detailed schedule is included in the appendix.
- CAWCD issued \$20 million in private placement bonds with BBVA Compass Bank in July 2019 for CAGRDR water supply capital projects, which will be repaid through the CAGRDR Infrastructure and Water Rights revenues. A detailed schedule is included in the appendix.

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 2021.

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 2021.

REPAYMENT OBLIGATION

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

Based on the terms of the Master Repayment Contract and the subsequent repayment settlement stipulation, CAWCD is obligated to repay \$1.646 billion to the federal government. The balance is projected to be \$938 million at the end of 2022 and \$897 million at the end of 2023.

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

NON-INDIAN AGRICULTURAL & 9(D) DEBT

In 2007, and as the result of the Arizona Water Settlement Act, long-term entitlements to CAP non-Indian Agricultural (NIA) water were relinquished by irrigation districts. Some of the relinquishment went to the federal government to be utilized for future tribal water settlements and 96,295 acre-feet were set aside for future allocation to M&I users. In exchange for the relinquishment, CAP incurred a 9(d) debt liability related to loans that had been made to the irrigation districts. The first recommended reallocation of 46,629 acre-feet is anticipated to occur in 2021 for delivery in 2022 (see page 2-8 for current impacts of this reallocation).

FUND RESERVES

RESERVES BY CATEGORY

RESTRICTED RESERVES

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

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

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



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

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

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

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

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

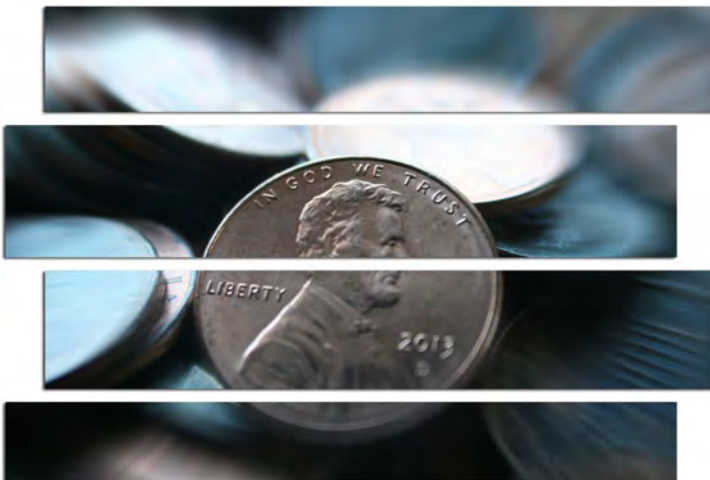
9(d) Reserve – This reserves was established in 2021 as required by the AWSA as a sinking fund to repay the 9(d) debt due as part of the NIA priority relinquishment by the irrigation districts.

COMMITTED RESERVES

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

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

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



Rate Stabilization Reserve – This fund was established in 2012 and was funded from rates through 2018. 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. This fund will be used to reduce rate increases in 2022 and 2023 and will be depleted. It has not been determined if a new reserve will be established due to the current shortage outlook.

Voluntary Rate Stabilization Reserve – Established in 2015, this reserve was created to provide additional funds to mitigate rate impacts due to potential Colorado River shortages and allow them to be “softened” or phased out over a longer period of time. Participation in this fund was voluntary and only certain customers elected to participate in this program using 2014 rate reconciliation refunds that otherwise would have been reimbursed to them. This reserve is anticipated to be utilized in 2024 and will then be depleted.

Navajo Decommissioning Reserves – Established in 2005, this fund is being utilized to pay CAP’s share of costs associated with the decommissioning and remediation of the Navajo Generating Station. Decommissioning costs will continue through 2053.

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

ASSIGNED RESERVES

The Board established several funds to provide Strategic Reserves in the event of catastrophic event. These reserves are described below:

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

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

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

WORKING CAPITAL RESERVES

Monies held by this fund are considered General Funds of CAP. They are unassigned reserves that are utilized for daily needs and are referred to as working capital. They are utilized to smooth out timing differences in revenues and spending within each year as well as between years.

STRATEGIC RESERVES & WORKING CAPITAL RESERVES TARGETS

Strategic Reserves are cash reserves for unusual or unplanned events, such as equipment failures, business interruption or unplanned costs. They are made up of a subset of the reserves listed above. Ideally, the Strategic Reserves accounts would never have to be used.

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

In April 2020, the Board approved a strategic reserves target of \$153 million and working capital reserves of \$51 million as part of its biennial review process. The targets are established through consistent analytical processes and financial best practices. Reserve targets will be reviewed in 2022 as part of the ongoing review process.

STRATEGIC RESERVES & WORKING CAPITAL RESERVES TARGETS (MILLIONS)	
Capital Reserve	\$ 70
Operating Reserve	\$ 75
Contingency Reserve	\$ 8
TOTAL STRATEGIC RESERVES TARGET	\$153
WORKING CAPITAL RESERVES TARGET	\$ 51

FUND 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>

UNASSIGNED / UNRESTRICTED	ASSIGNED	RESTRICTED	COMMITTED
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Working Capital Reserve	Operating Reserve	
	Contingency Reserve	
	Capital Reserve	Major Repair/Replacement Reserve

These two reserves are managed together

- = Working Capital Reserve
- = Strategic Reserves
- = Other Reserves

Repayment Reserve	Water Storage Reserve
Emergency O&M Reserve	Extraordinary Cost Reserve
Supplemental Water Reserve	Recovery Reserve
Bond Reserve	Rate Stabilization Reserve
Captive Insurance Reserves	Navajo Decommissioning Reserve
CAGRDR Replenishment Reserves	CAGRDR Reserves
CAGRDR I&WR Reserve	
9(d) Debt Reserve	

Combined Financial Statements

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

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

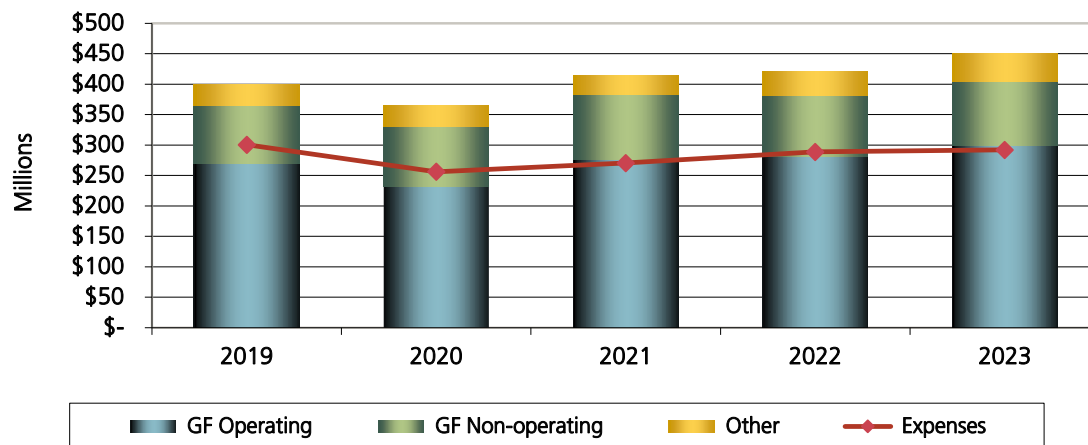
As fixed operations and maintenance expenses are fairly consistent from year-to-year, CAWCD does not provide advisory year projections beyond the budget period for operating expenses within this document. Longer term operational costs are addressed and communicated in the Long Range Financial Plan (LRFP) process, which is outside of the budget process in even years.

Variability in operating expenses are primarily driven by (1) pumping energy purchases and (2) extraordinary maintenance projects. Pumping energy is dependent on the energy market and projections beyond 2 years are speculative. Only a small portion of CAWCD's energy needs are covered by contracts that cover up to 5 years. Extraordinary maintenance projects are excluded from operations from a rate perspective and treated as part of capital spending in the "Big R" rate. While CAWCD provides advisory rates in outer years, they are caveated that they may vary based on energy market volatility. Discussion of the District-level financials are covered in Section 2, the Biennial Budget Overview.

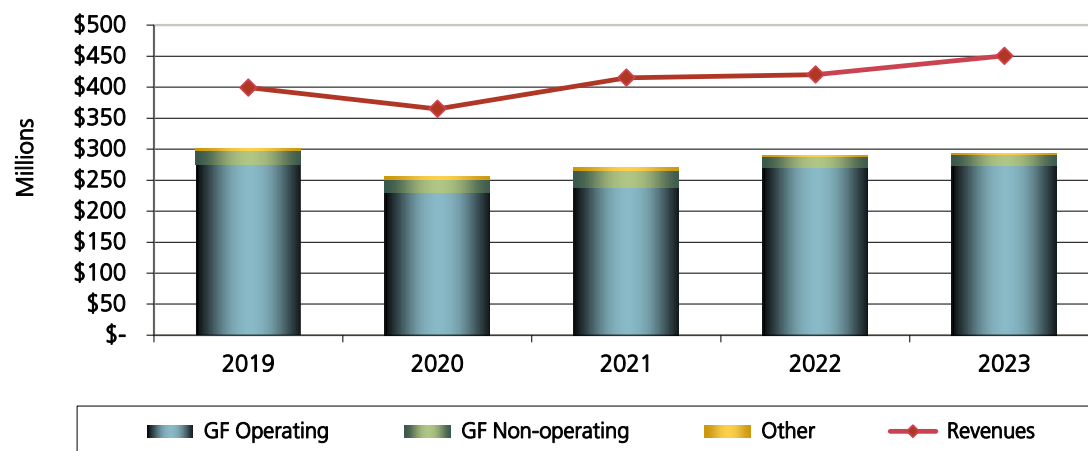
FUND	DESCRIPTION
General Fund	Represents CAWCD's core business, the delivery of Colorado River water to central Arizona through the Central Arizona Project (CAP) and repayment of reimbursable construction costs and is, by an order of magnitude, the largest fund within the District.
Central Arizona Groundwater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

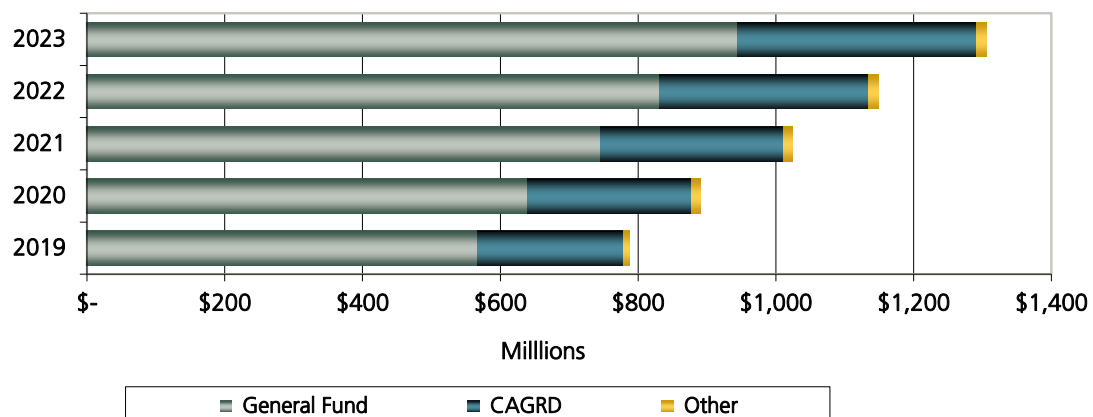
Revenues Compared to Expenses



Expenses Compared to Revenues



Net Position



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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Operating Revenues					
Water operations & maintenance charges	\$ 177,157	\$ 164,105	\$ 181,328	\$ 220,056	\$ 233,483
Water service capital charges	25,510	38,582	60,057	35,360	39,734
Power and Basin Development Fund revenues	52,703	16,079	7,928	8,040	8,130
Reimbursements and other operating revenues	46,848	46,711	65,629	56,870	63,824
Total Operating Revenues	302,218	265,477	314,942	320,326	345,171
Operating Expenses					
Salaries and related costs	(66,374)	(68,744)	(70,257)	(75,652)	(80,301)
Pumping energy and capacity charges	(75,900)	(68,157)	(68,046)	(64,956)	(64,410)
Transmission	(17,415)	(14,578)	(15,912)	(16,037)	(15,580)
Amortization of permanent service right	(23,162)	(23,001)	(23,001)	(23,001)	(21,782)
Depreciation	(24,977)	(25,052)	(25,943)	(26,673)	(28,360)
Other operating expenses					
Outside services	(29,006)	(22,393)	(24,759)	(51,289)	(49,782)
Materials and supplies	(7,835)	(8,121)	(9,004)	(8,912)	(9,019)
Water for recharge	(1,309)	(1,872)	(2,540)	2,743	1,804
Other expenses	(31,914)	(2,571)	(3,130)	(6,028)	(6,954)
Subtotal	(70,064)	(34,957)	(39,433)	(63,486)	(63,951)
Total Operating Expenses	(277,892)	(234,489)	(242,592)	(269,805)	(274,384)
Operating Income/(Loss)	24,326	30,988	72,350	50,521	70,787
Non-operating Revenues/(Expenses)					
Property taxes	76,718	82,233	86,916	92,079	97,194
Interest income & other non-operating revenues	20,380	17,179	13,331	7,804	8,143
Disbursements to AWBA	(4,561)	(6,361)	(10,344)	(7,545)	(545)
Interest expense & other non-operating expenses	(22,755)	(21,748)	(27,868)	(19,121)	(17,667)
Non-operating Income/(Loss)	69,782	71,303	62,035	73,217	87,125
Change in Net Position	94,108	102,291	134,385	123,738	157,912
Cumulative-effect of change in accounting principles	-	-	-	-	-
Net Position at beginning of year	693,987	788,095	890,386	1,024,771	1,148,509
Net Position at end of year	<u>\$ 788,095</u>	<u>\$ 890,386</u>	<u>\$ 1,024,771</u>	<u>\$ 1,148,509</u>	<u>\$ 1,306,421</u>

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

(Thousands)

	2022 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
Operating Revenues						
Water operations & maintenance charges	\$ 220,056	\$ (14,448)	\$ 234,504	\$ -	\$ -	\$ -
Water service capital charges	35,360	(1,338)	36,698	-	-	-
Power & basin development fund revenues	8,040	-	8,040	-	-	-
Reimbursements & other revenues	56,870	(11,842)	1,881	-	55,125	11,706
Total Operating Revenues	320,326	(27,628)	281,123	-	55,125	11,706
Operating Expenses						
Salaries and related costs	(75,652)	-	(74,325)	-	(1,327)	-
Pumping energy and capacity charges	(64,956)	-	(64,956)	-	-	-
Transmission	(16,037)	-	(16,037)	-	-	-
Amortization of permanent service right	(23,001)	-	(23,001)	-	-	-
Depreciation	(26,673)	-	(26,612)	-	(61)	-
Other operating expenses	-	-	-	-	-	-
Outside services	(51,289)	-	(50,377)	-	(683)	(229)
Materials and supplies	(8,912)	-	(8,912)	-	-	-
Overhead	4,352	-	5,792	-	(1,440)	-
Water for recharge	2,743	15,922	-	-	(13,179)	-
Other expenses	(10,380)	11,706	(11,226)	-	(55)	(10,805)
Subtotal	(63,486)	27,628	(64,723)	-	(15,357)	(11,034)
Total Operating Expenses	(269,805)	27,628	(269,654)	-	(16,745)	(11,034)
Operating Income/(Loss)	50,521	-	11,469	-	38,380	672
Non-operating Revenues/(Expenses)						
Property taxes	92,079	-	92,079	-	-	-
Interest income & other non-operating revenues	7,804	(635)	8,016	132	259	32
Disbursements to AWBA	(7,545)	-	(7,545)	-	-	-
Interest expense & other non-operating expenses	(19,121)	635	(18,843)	-	(913)	-
Non-operating Income/(Loss)	(26,666)	-	(26,388)	-	(913)	-
Total Non-operating Revenues/(Expenses)	73,217		73,707	132	(654)	32
Change in Net Position	123,738	-	85,176	132	37,726	704
Net Position at beginning of year	1,024,771	(2,350)	745,496	9,110	265,973	6,542
Net Position at end of year	\$ 1,148,509	\$ (2,350)	\$ 830,672	\$ 9,242	\$ 303,699	\$ 7,246

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

(Thousands)

	2023 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
Operating Revenues						
Water operations & maintenance charges	\$ 233,483	\$ (15,258)	\$ 248,741	\$ -	\$ -	\$ -
Water service capital charges	39,734	(1,250)	40,984	-	-	-
Power & basin development fund revenues	8,130	-	8,130	-	-	-
Reimbursements & other revenues	63,824	(12,825)	2,144	-	61,803	12,702
Total Operating Revenues	345,171	(29,333)	299,999	-	61,803	12,702
Operating Expenses						
Salaries and related costs	(80,301)	-	(78,912)	-	(1,389)	-
Pumping Energy and Capacity charges	(64,410)	-	(64,410)	-	-	-
Transmission	(15,580)	-	(15,580)	-	-	-
Amortization of permanent service right	(21,782)	-	(21,782)	-	-	-
Depreciation	(28,360)	-	(28,299)	-	(61)	-
Other operating expenses	-	-	-	-	-	-
Outside services	(49,782)	-	(48,751)	-	(763)	(268)
Materials and supplies	(9,019)	-	(9,019)	-	-	-
Overhead	3,767	-	5,274	-	(1,507)	-
Water for recharge	1,804	16,631	-	-	(14,827)	-
Other expenses	(10,721)	12,702	(11,890)	-	(55)	(11,478)
Subtotal	(63,951)	29,333	(64,386)	-	(17,152)	(11,746)
Total Operating Expenses	(274,384)	29,333	(273,369)	-	(18,602)	(11,746)
Operating Income/(Loss)	70,787	-	26,630	-	43,201	956
Non-operating Revenues/(Expenses)						
Property taxes	97,194	-	97,194	-	-	-
Interest income & other non-operating revenues	8,143	(461)	7,643	133	793	35
Disbursements to AWBA	(545)	-	(545)	-	-	-
Interest expense & other non-operating expenses	(17,667)	461	(17,479)	-	(649)	-
Non-operating Income/(Loss)	(18,212)	-	(18,024)	-	(649)	-
Total Non-operating Revenues/(Expenses)	87,125		86,813	133	144	35
Change in Net Position	157,912	-	113,443	133	43,345	991
Net Position at beginning of year	1,148,509	(2,350)	830,672	9,242	303,699	7,246
Net Position at end of year	\$ 1,306,421	\$ (2,350)	\$ 944,115	\$ 9,375	\$ 347,044	\$ 8,237



Arizona Desert

STATEMENTS OF NET POSITION - COMBINED

(Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
ASSETS					
Current Assets					
Cash and cash equivalents	\$ 107,041	\$ 117,624	\$ 93,779	\$ 109,314	\$ 126,831
Receivables	59,300	54,425	102,022	94,925	97,887
Due from water customers, net	8,166	2,720	624	2,103	12,612
Water inventory	206,196	215,715	229,591	235,964	242,405
Other	1,735	2,707	3,147	3,215	3,282
Total Current Assets	374,272	390,471	428,539	443,418	470,405
Non-current Assets					
Funds held by the federal government	51,530	16,428	8,058	8,040	8,130
Investments	314,210	419,981	485,907	523,965	587,575
Restricted assets	97,524	96,823	108,273	120,411	136,307
Capital assets					
Operating assets, less accum depr	297,881	305,858	331,341	343,389	357,636
Permanent service right, less accum amort	1,065,836	1,042,835	1,019,835	996,834	975,053
Agriculture water allocation	88,719	88,719	45,759	45,759	45,759
Total Non-current Assets	1,915,700	1,970,644	1,999,173	2,038,398	2,110,460
Total Assets	2,289,972	2,361,115	2,427,712	2,481,816	2,580,865
DEFERRED OUTFLOWS OF RESOURCES					
Pension valuation	9,113	18,166	18,165	18,166	18,166
Total Deferred Outflows of Resources	9,113	18,166	18,165	18,166	18,166
Total Assets and Deferred Outflows of Resources	\$ 2,299,085	\$ 2,379,281	\$ 2,445,877	\$ 2,499,982	\$ 2,599,031
LIABILITIES					
Current Liabilities					
Accounts payable	\$ 21,756	\$ 40,408	\$ 21,315	\$ 25,415	\$ 26,452
Accrued payroll, payroll taxes & other accrued exp.	7,773	9,745	8,787	6,759	7,069
Unearned revenue	30,664	33,980	33,974	42,279	43,873
Accrued interest payable	22,386	21,269	20,136	18,716	17,382
Repayment obligation, due within one year	32,929	5,245	5,365	40,456	40,456
Asset retirement obligation due within one year	27,700	15,972	18,484	2,648	864
Contract revenue bonds, due within one year	3,165	32,929	40,456	5,540	5,725
Total Current Liabilities	146,373	159,548	148,517	141,813	141,821
Non-current Liabilities					
Repayment obligation, due after one year	1,010,921	977,992	937,536	897,080	856,623
Asset retirement obligation due after one year	51,147	36,545	21,295	18,642	17,778
Contract revenue bonds, due after one year	63,473	57,532	51,484	45,323	39,035
Non-Indian agriculture 9(d) debt	88,719	88,719	88,719	88,719	88,719
Other non-current liabilities	90,454	106,073	106,073	106,073	106,073
Total Non-current Liabilities	1,304,714	1,266,861	1,205,107	1,155,837	1,108,228
Total Liabilities	1,451,087	1,426,409	1,353,624	1,297,650	1,250,049
DEFERRED INFLOWS OF RESOURCES					
Customer deposits	43,171	52,079	57,076	43,416	32,154
Pension valuation	16,732	10,407	10,406	10,407	10,407
Total Deferred Inflows of Resources	59,903	62,486	67,482	53,823	42,561
NET POSITION					
Net investment in capital assets.	251,229	272,995	329,112	360,936	396,142
Restricted	75,138	75,554	88,138	101,591	118,815
Unrestricted	461,728	541,837	607,521	685,982	791,464
Total Net Position	788,095	890,386	1,024,771	1,148,509	1,306,421
Total Liabilities, Def Inflows & Net Position	\$ 2,299,085	\$ 2,379,281	\$ 2,445,877	\$ 2,499,982	\$ 2,599,031

COMBINING SCHEDULE OF NET POSITION - BY FUND & ACCOUNT

(Thousands)

	2022 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
ASSETS						
Current Assets						
Cash and cash equivalents	\$ 109,314	\$ -	\$ 63,363	\$ -	\$ 37,415	\$ 8,536
Receivables	94,925	(23,097)	104,624	-	13,398	-
Water inventory	235,964	-	27,365	-	208,599	-
Other	3,215	-	2,574	-	631	10
Total Current Assets	443,418	(23,097)	197,926	-	260,043	8,546
Non-current Assets						
Funds held by the federal government	8,040	-	8,040	-	-	-
Investments	523,965	(2,350)	513,600	-	12,715	-
Restricted assets	120,411	-	60,070	9,242	48,849	2,250
Capital assets	341,389	-	314,845	-	26,544	-
Operating assets, less accum depr	2,000	-	2,000	-	-	-
Permanent service right, less accum amort	996,834	-	996,834	-	-	-
Agriculture water allocation	45,759	-	45,759	-	-	-
Total Non-current Assets	2,038,398	(2,350)	1,941,148	9,242	88,108	2,250
Total Assets	2,481,816	(25,447)	2,139,074	9,242	348,151	10,796
DEFERRED OUTFLOWS OF RESOURCES						
Pension valuation	18,166	-	18,166	-	-	-
Total Deferred Outflows of Resources	18,166	-	18,166	-	-	-
Total Assets and Deferred Outflows of Resources	\$ 2,499,982	\$ (25,447)	\$ 2,157,240	\$ 9,242	\$ 348,151	\$ 10,796
LIABILITIES						
Current Liabilities						
Accounts payable	\$ 25,415	\$ (1,695)	\$ 12,004	\$ -	\$ 11,556	\$ 3,550
Accrued payroll, payroll taxes & other	6,759	-	6,759	-	-	-
Unearned revenue	42,279	-	42,279	-	-	-
Accrued interest payable	18,716	-	18,577	-	139	-
Repayment obligation, due within one yr	40,456	-	40,456	-	-	-
Asset retirement obligation due within one year	2,648	-	2,648	-	-	-
Contract revenue bonds, due within one yr	5,540	-	1,845	-	3,695	-
Total Current Liabilities	141,813	(1,695)	124,568	-	15,390	3,550
Non-current Liabilities						
Repayment obligation, due after one year	897,080	-	897,080	-	-	-
Contact revenue bonds, due after one year	45,323	-	37,663	-	7,660	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Asset retirement obligation due after one year	18,642	-	18,642	-	-	-
Other liabilities	106,073	(21,402)	106,073	-	21,402	-
Total Non-current Liabilities	1,155,837	(21,402)	1,148,177	-	29,062	-
Total Liabilities	1,297,650	(23,097)	1,272,745	-	44,452	3,550
DEFERRED INFLOWS OF RESOURCES						
Customer deposits	43,416	-	43,416	-	-	-
Pension Valuation	10,407	-	10,407	-	-	-
Total Deferred Inflows of Resources	53,823	-	53,823	-	-	-
NET POSITION						
Net Investment in capital assets,	360,936	-	334,636	-	26,300	-
Restricted	101,591	-	41,494	9,242	48,605	2,250
Unrestricted	685,982	(2,350)	454,542	-	228,794	4,996
Total Net Position	1,148,509	(2,350)	830,672	9,242	303,699	7,246
Total Liabilities, Def Inflows & Net Position	\$ 2,499,982	\$ (25,447)	\$ 2,157,240	\$ 9,242	\$ 348,151	\$ 10,796

COMBINING SCHEDULE OF NET POSITION - BY FUND & ACCOUNT

(Thousands)

	2023 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
ASSETS:						
Current Assets:						
Cash and cash equivalents	\$ 126,831	\$ -	\$ 69,720	\$ -	\$ 47,584	\$ 9,527
Receivables	97,887	(16,435)	99,488	-	14,834	-
Water inventory	242,405	-	27,582	-	214,823	-
Other	3,282	-	2,641	-	631	10
Total Current Assets	470,405	(16,435)	199,431	-	277,872	9,537
Non-current Assets:						
Funds held by the federal government	8,130	-	8,130	-	-	-
Investments	587,575	(2,350)	576,961	-	12,964	-
Restricted assets	136,307	-	60,115	9,375	64,567	2,250
Capital assets	355,636	-	328,987	-	26,649	-
Operating assets, less accum depr	2,000	-	2,000	-	-	-
Permanent service right, less accum amort	975,053	-	975,053	-	-	-
Agriculture water allocation	45,759	-	45,759	-	-	-
Total Non-current Assets	2,110,460	(2,350)	1,997,005	9,375	104,180	2,250
Total Assets	\$ 2,580,865	(18,785)	2,196,436	9,375	382,052	11,787
DEFERRED OUTFLOWS OF RESOURCES						
Pension valuation	18,166	-	18,166	-	-	-
Total Deferred Outflows	18,166	-	18,166	-	-	-
Total Assets and Deferred Outflows of Resources	\$ 2,599,031	\$ (18,785)	\$ 2,214,602	\$ 9,375	\$ 382,052	\$ 11,787
LIABILITIES:						
Current Liabilities:						
Accounts payable	\$ 26,452	\$ (2,167)	\$ 12,082	\$ -	\$ 12,987	\$ 3,550
Accrued payroll, payroll taxes & other	7,069	-	7,069	-	-	-
Unearned revenue	43,873	-	43,873	-	-	-
Accrued interest payable	17,382	-	17,289	-	93	-
Repayment obligation, due within one yr	40,456	-	40,456	-	-	-
Asset retirement obligation due within one year	864	-	864	-	-	-
Contract revenue bonds, due within one yr	5,725	-	1,940	-	3,785	-
Total Current Liabilities	141,821	(2,167)	123,573	-	16,865	3,550
Non-current Liabilities:						
Repayment obligation, due after one year	856,623	-	856,623	-	-	-
Contact revenue bonds, due after one year	39,035	-	35,160	-	3,875	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Asset retirement obligation due after one year	17,778	-	17,778	-	-	-
Other liabilities	106,073	(14,268)	106,073	-	14,268	-
Total Non-current Liabilities	1,108,228	(14,268)	1,104,353	-	18,143	-
Total Liabilities	1,250,049	(16,435)	1,227,926	-	35,008	3,550
DEFERRED INFLOWS OF RESOURCES						
Customer deposits	32,154	-	32,154	-	-	-
Pension Valuation	10,407	-	10,407	-	-	-
Total Deferred Inflows of Resources	42,561	-	42,561	-	-	-
NET POSITION:						
Net Investment in capital assets,	396,142	-	369,859	-	26,283	-
Restricted	118,815	-	42,827	9,375	64,363	2,250
Unrestricted	791,464	(2,350)	531,429	-	256,398	5,987
Total Net Position	1,306,421	(2,350)	944,115	9,375	347,044	8,237
Total Liabilities, Def Inflows & Net Position	\$ 2,599,031	\$ (18,785)	\$ 2,214,602	\$ 9,375	\$ 382,052	\$ 11,787



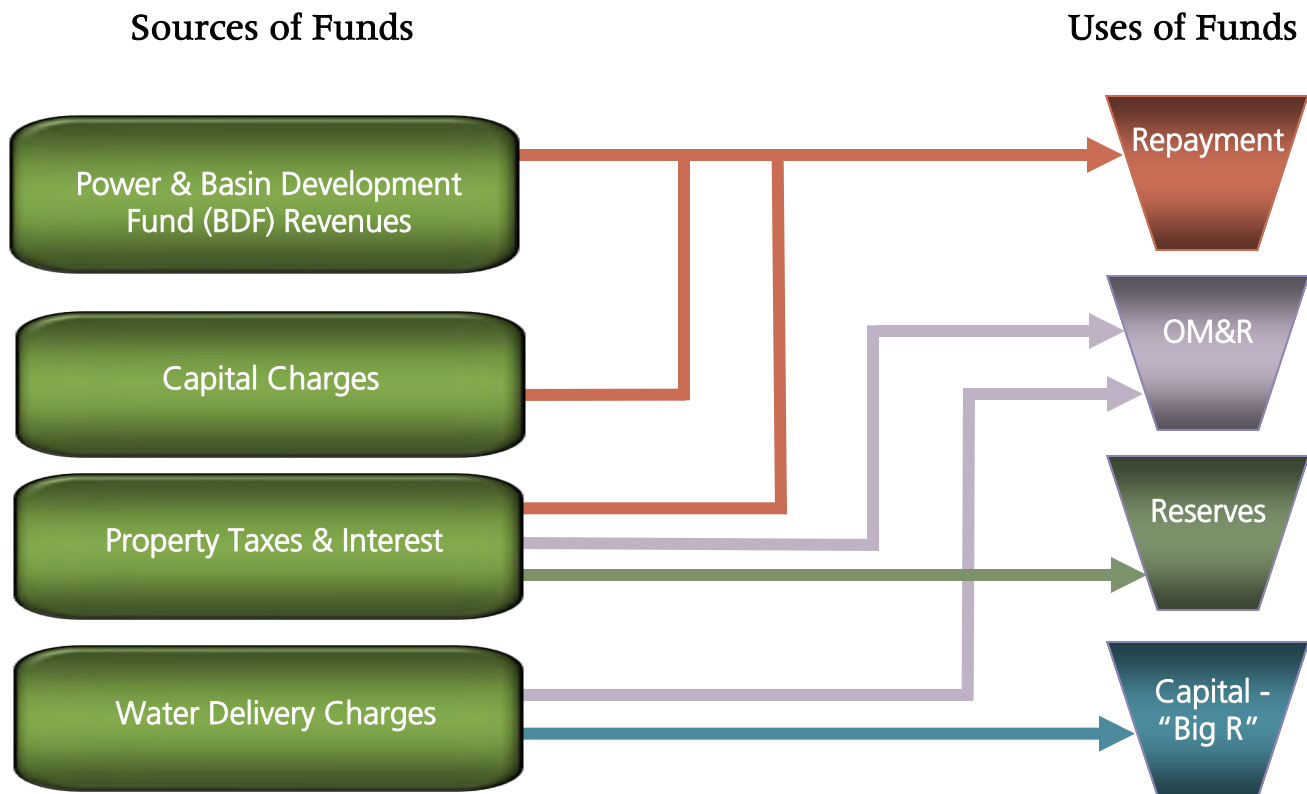
Arizona Desert

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 O&M charges, reimbursements, other revenues and, to the extent needed, property taxes and interest income, pay for costs associated with delivering water (Fixed Operations, Maintenance and Replacement (OM&R) and pumping energy), recharge O&M and capital spending. Any excess property taxes or interest goes into reserves. Reserves also address inter-year capital ("Big R") spending variances or any shortfall that is not covered from the available sources.

GENERAL FUND SOURCES AND USES OF FUNDS



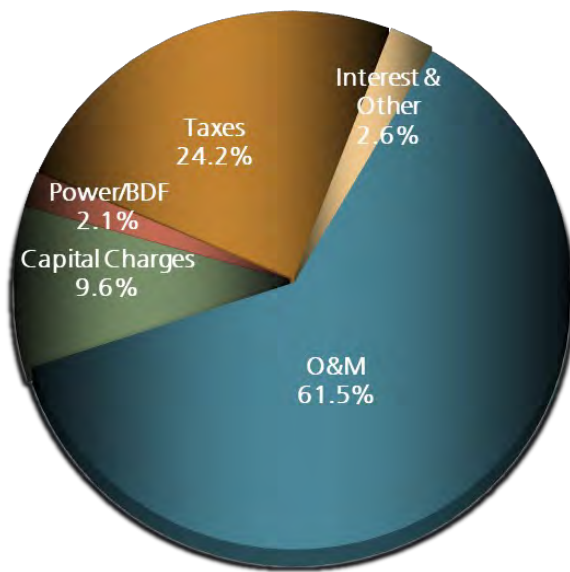
REVENUES

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 more than 61% for 2022 and 2023. 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 & other revenue, and BDF revenues.

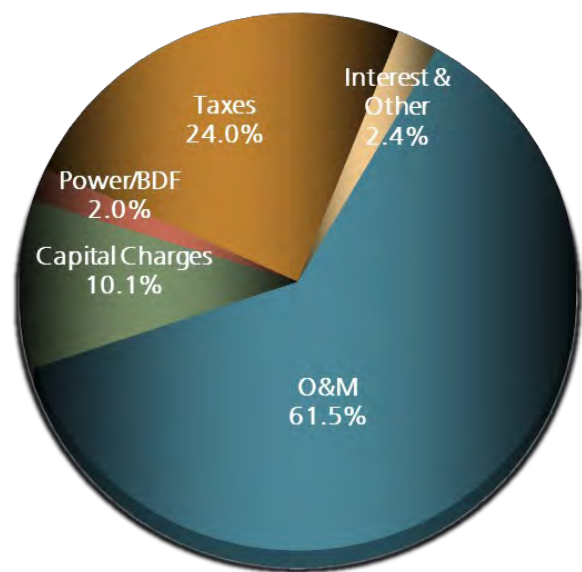
General Fund -2022 Revenues

(\$381.2 Million)



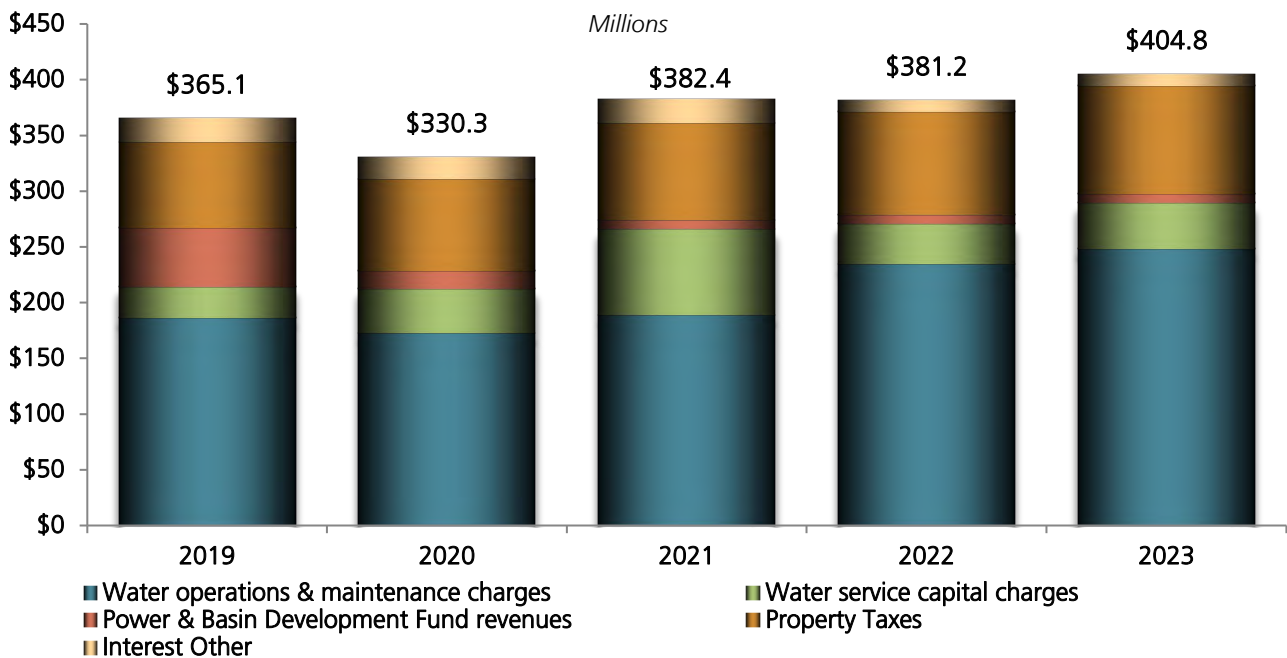
General Fund -2023 Revenues

(\$404.8 Million)



General Fund Revenues

Millions



EXPLANATION OF CHANGES

Total General Fund revenues are projected to decrease \$1.2 million for 2022 and increase \$23.6 million in 2023. The following discussion further explains the changes in the 2022 / 2023 revenue budget.

(Millions)	2021 Projection	2022 Budget	2023 Budget	22 vs 21 incr/(decr)	23 vs 22 incr/(decr)
Water O&M charges	\$ 189.1	\$ 234.5	\$ 248.7	\$ 45.4	\$ 14.2
Capital charges	77.2	36.7	41.0	(40.5)	4.3
Power & BDF revenues	7.9	8.0	8.1	0.1	0.1
Property taxes	86.9	92.1	97.2	5.2	5.1
Interest income & other	21.3	9.9	9.8	(11.4)	(0.1)
Total	\$ 382.4	\$ 381.2	\$ 404.8	\$ (1.2)	\$ 23.6

Water O&M Charges

As discussed in the Water Delivery Volumes and Water O&M Charges (see pages 2-4 through 2-8) water O&M revenue is directly linked to the amount of water that is delivered and the rates that are charged (see page 7-3). It is anticipated that 2022 will be Tier 1 and 2023 will be Tier 2a delivery year with water deliveries (including credits) of 1.245 million acre-feet and 1.118 million acre-feet, respectively. Water deliveries for 2021 are projected to be 1.375 million acre-feet. Deliveries are less than in prior years due to the shortage mitigation programs that leave water in Lake Mead. When deliveries decrease, the Fixed O&M rate per acre-foot increases as a result of the District's fixed costs being spread over fewer acre-feet. Energy is a variable rate and therefore the per acre-foot rate remains fairly consistent. The impact is that revenue will decrease in direct proportion the change in the energy cost. Another water O&M revenue impact is that in 2021, there were 256,110 acre-feet of Ag Settlement Pool deliveries. The Ag Settlement Pool does not pay the Fixed OM&R rate as it is covered by taxes and does not result in any water O&M revenue for this rate component. In 2022 there are only 42,000 acre-feet of deliveries to the Ag Settlement Pool and none in 2023. The result of this is that the cost allocated to these deliveries that was covered by taxes will be paid by long-term contract holders and therefore increase water O&M revenue significantly.

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

Capital Charges

Capital charge revenue is based on \$53 per acre-foot for 2021, \$50 per acre-foot in 2022 and \$56 per acre-foot in 2023. Due to the decrease in revenues in the Basin Development Fund, capital charges have been increased to cover the annual federal debt repayment.

Capital charges are paid on M&I water allocations, not delivery. Excess water, excluding the Ag Settlement Pool, pay a facility use fee, which is equivalent to the capital charge. It is anticipated that 46,629 acre-feet of non-Indian Agriculture (NIA) water will be allocated by the end of 2021. Part of this reallocation includes back capital charges and related interest. The back capital charges of \$24.8 million and \$12.1 million in related interest are included in 2021. It is assumed customers will make payments evenly over 5 years.

Power & BDF Revenues

Certain revenues are sent directly into the Basin Development Fund, which is held by the Bureau of Reclamation (Bureau) and lowers the amount of the cash payment on the federal debt. CAWCD recognizes the revenue going into the fund that is available as a credit against the repayment with a corresponding accounts receivable due from Bureau.

Power & BDF revenue is shown in the following table:

<i>(Millions)</i>	2021 Projection	2022 Budget	2023 Budget	22 vs 21 incr/(decr)	23 vs 22 incr/(decr)
Hoover 4.5 mil revenue	\$ 3.4	\$ 3.1	\$ 3.2	\$ (0.3)	\$ 0.1
Parker-Davis 4.5 mil revenue	2.8	2.9	2.9	0.1	-
Net CAP transmission revenues	(1.4)	(1.0)	(1.0)	0.4	-
Land-related revenue	0.8	0.8	0.8	-	-
Misc NGS Revenues	2.3	2.2	2.2	(0.1)	-
Total	\$ 7.9	\$ 8.0	\$ 8.1	\$ 0.1	\$ 0.1

Property Taxes

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

In exchange for agricultural customers giving up water rights, there was an agreement to put in place the agricultural settlement pool and payment for the associated Fixed OM&R costs (known as the Ag Consideration). This pool was initially 400,000 acre-feet, but decreased to 300,000 in 2017, and will decrease to 225,000 in 2024 and to zero in 2031. Due to the shortage, this pool is the first from the excess water pool to be reduced in deliveries. As stated above, there is only 42,000 acre-feet in 2022 and no anticipated deliveries in 2023 for the Ag Settlement Pool. The result is that at a consistent tax rate, additional funds will be available for other purposes or to increase working capital reserves.

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

In June 2021, the CAWCD Board set the general ad valorem tax rate at \$0.10 per \$100 of

LPV and the water storage tax at \$0.04 per \$100 of LPV for the tax year 2021 / 2022. The Board also directed that \$.075 of the general ad valorem tax to be held in a separate account including accrued interest for extraordinary cost needs. The water storage tax is to be used for repayment or CAWCD operating costs.

These rates and Board directions have been maintained in the 2022 / 2023 budget. As the Board makes an annual decision on setting the tax rates, these projections may change significantly.

Interest Income

(Millions)

Calendar Year	General Ad Valorem Tax	Water Storage Ad Valorem Tax	Total Revenue	Year-over-Year incr/(decr)
2019	\$54.7	\$22.0	\$76.7	\$4.7
2020	58.6	23.6	82.2	5.5
2021	63.3	23.6	86.9	4.7
2022	65.6	26.5	92.1	5.2
2023	69.3	27.9	97.2	5.1

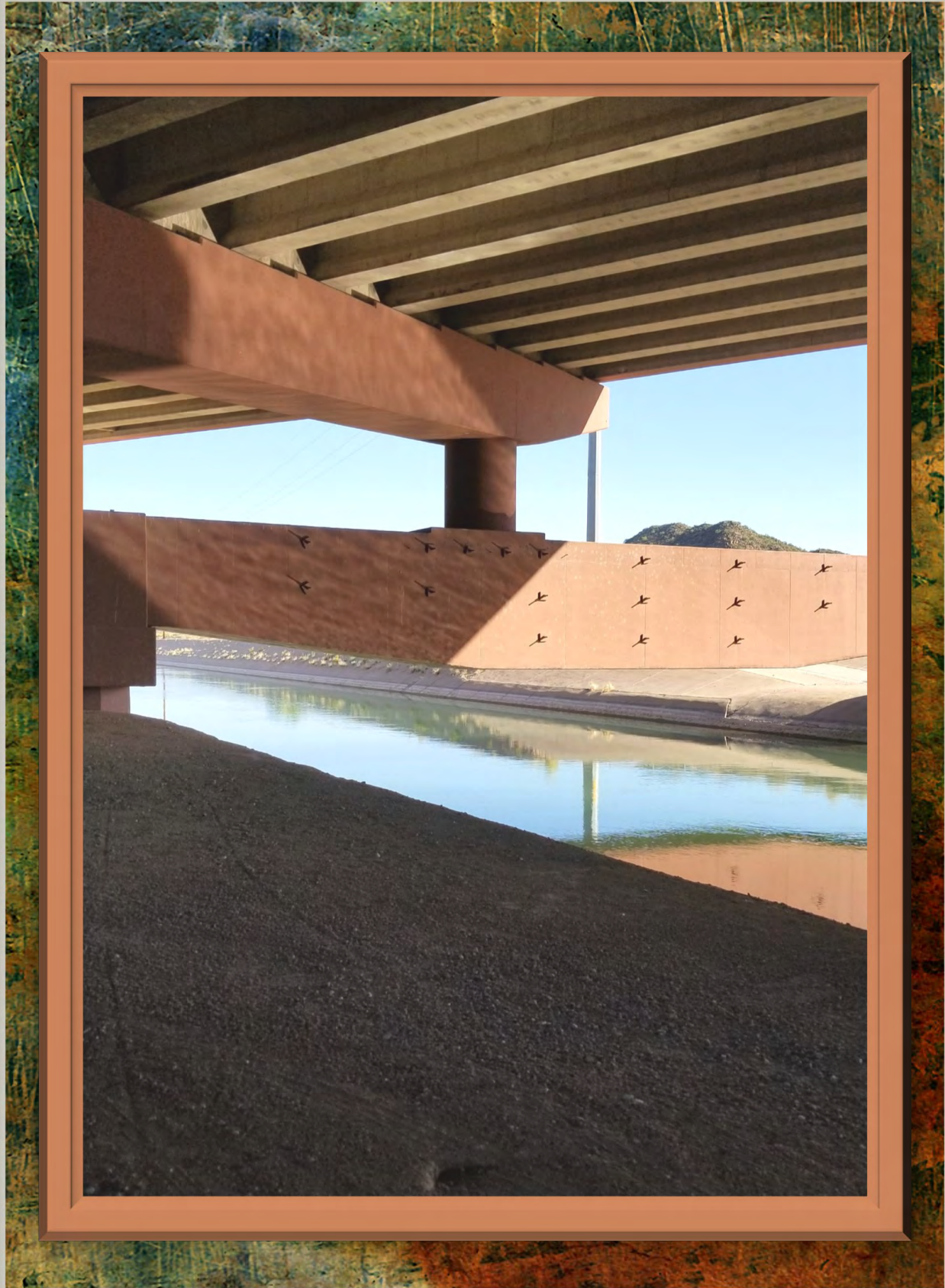
Interest income is projected to be at \$8.1 million in 2022 and \$7.6 million in 2023. Funds are invested with the Arizona State Treasurer and interest is earned on approximately 13% short-term investments (under 1 year) and 87% longer term investments (average 4.5 years).

Other Revenue

Other revenue is mostly revenue from Recharge O&M with some smaller revenues associated with customer land use reimbursements and other miscellaneous revenues. These revenues are anticipated to remain stable for 2022 through 2023.



CAP Canal



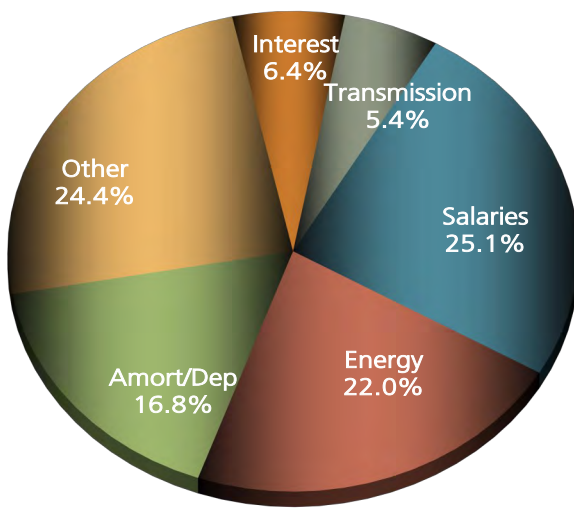
Red Mountain freeway just north of McDowell Rd — Taken by CAP Employee Pam Saba

EXPENSES

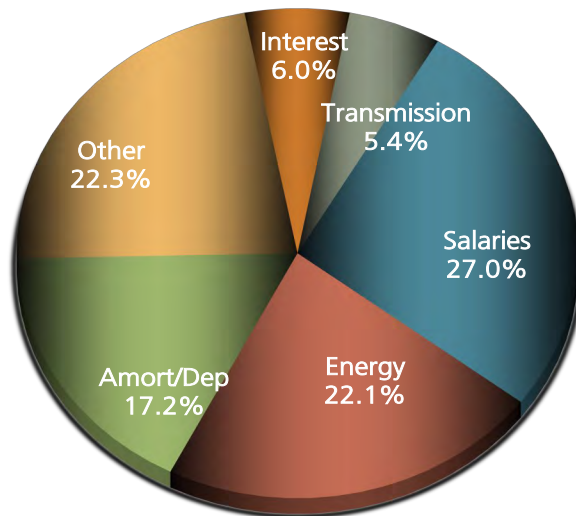
Expenses consist of salaries and related costs, pumping energy, amortization and depreciation, interest and other costs, which primarily outside services, supplies and transfer to AWBA.

Salaries and related costs is the District's most significant expense, accounting for 25.1% of the 2022 expenses and 27.0% of the 2023 expenses. Other costs represents the second largest category, followed by pumping energy, amortization and depreciation, interest expense, and transmission costs.

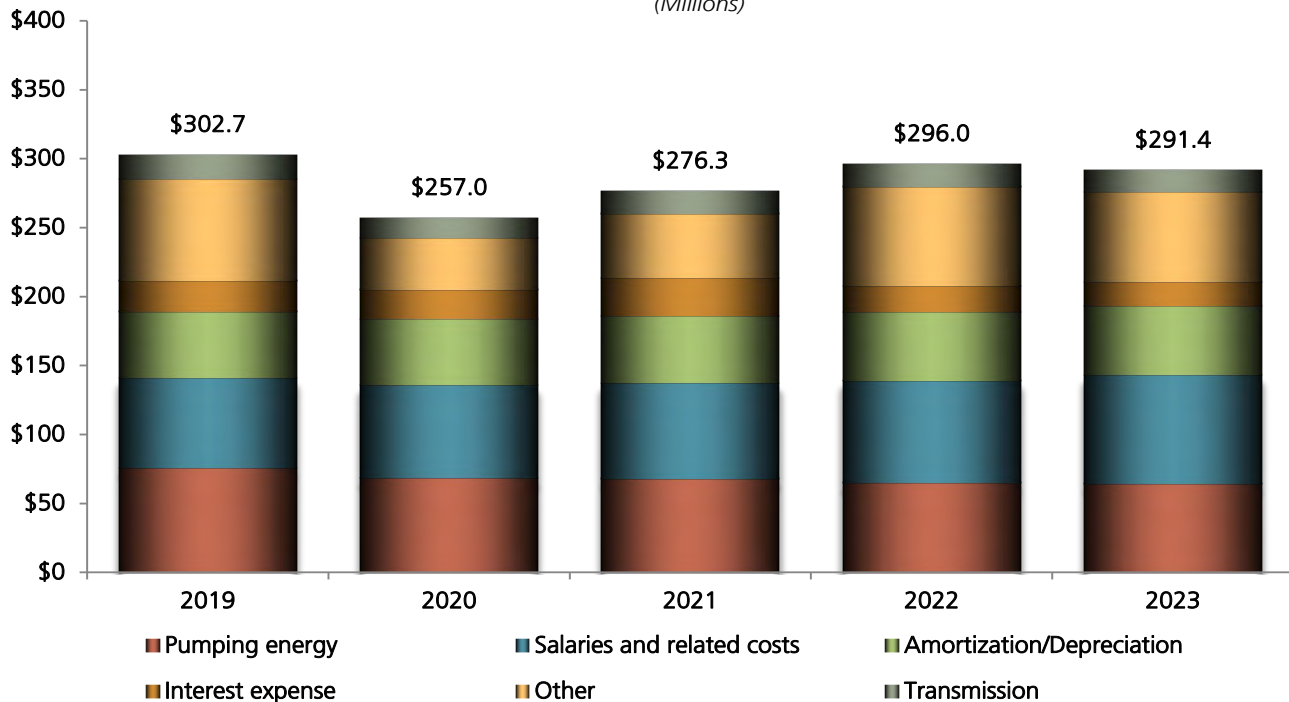
General Fund -2022 Expenses
(\$296.0 Million)



General Fund -2023 Expenses
(\$291.4 Million)



General Fund Expenses
(Millions)



EXPLANATION OF CHANGES

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

The following discussion further explains the 2022 / 2023 expense budget.

(Millions)	2021 Projection	2022 Budget	2023 Budget	22 vs 21 incr/(decr)	23 vs 22 incr/(decr)
Salaries and related costs	\$ 69.2	\$ 74.3	\$ 78.8	\$ 5.1	\$ 4.5
Pumping energy	68.0	65.0	64.4	(3.0)	(0.6)
Transmission	15.9	16.0	15.6	0.1	(0.4)
Amortization/Depreciation	48.9	49.6	50.1	0.7	0.5
Other operating expenses	46.8	72.3	65.0	25.5	(7.3)
Interest & non-operating expenses	27.5	18.8	17.5	(8.7)	(1.3)
Total expenses	\$ 276.3	\$ 296.0	\$ 291.4	\$ 19.7	\$ (4.6)

Salaries and Related Costs

Prior to replacement of a position, it is reviewed to determine the most effective and efficient manner to fill the needs of that position, whether it be through replacement, consolidation, or restructuring. Two FTEs were added in 2021. There are no additional full time equivalents (FTEs) being requested during the budget period. Merit increases are budgeted at 5% for each year based on a recent compensation study.

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

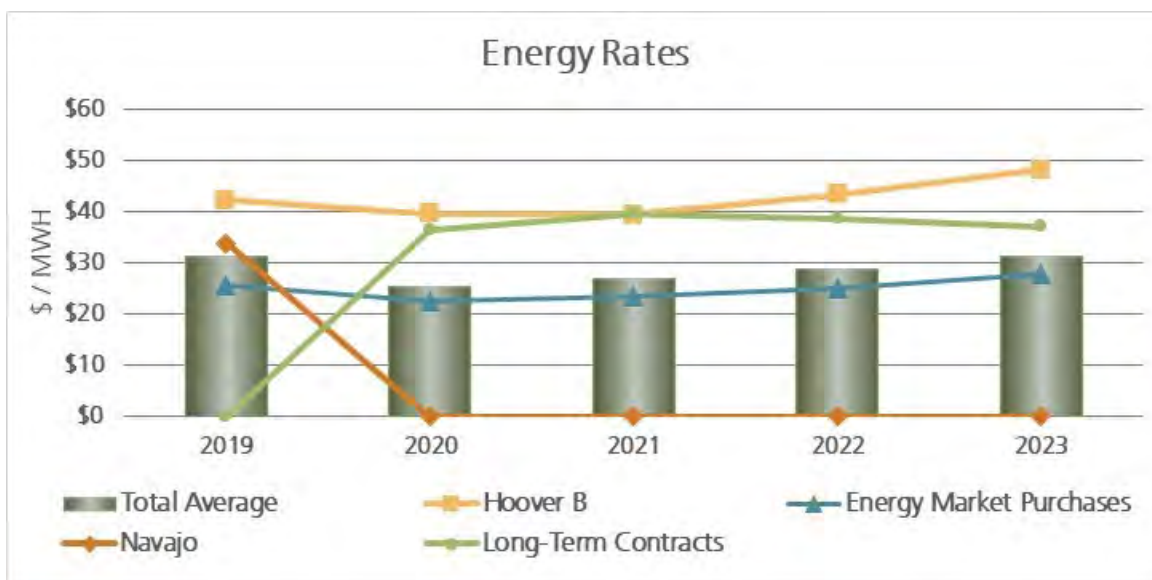
CAWCD has established a vacancy and salary savings equivalent adjustment of fifteen positions in the 2022 and 2023 budget. Overall, salaries and related costs are anticipated to increase \$5.1 million in 2022 and \$4.5 million in 2023 for the General Fund.

Pumping Energy Costs

Five factors influence pumping energy costs:

- The amount of energy needed to divert water from the Colorado River;
- The number of pumping stations through which the water travels to get to its delivery point;
- The increase or decrease in water inventory in both Lake Pleasant and Lake Roosevelt;
- The unit cost of purchased energy; and
- The energy trading markets.

Energy costs decreases in 2022 and 2023 as a result of decreased deliveries due to Tier 1 in 2022 and Tier 2a in 2023, therefore less power is necessary. It is offset by increases in anticipated energy prices, approximately 5% percent increase from 2021 to 2022 and 9% increase from 2022 to 2023. Average market price is anticipated to be relatively flat during the budget period.



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

Other costs include scheduling and balancing services that are required under the energy arrangements. Detail on pumping energy costs can be found in the Appendix (page 7-7).

Transmission

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

Amortization and Depreciation

The permanent service right (PSR) represents the District's right to operate and maintain the CAP system. Amortization is \$23.0 million for 2022 and \$21.8 million for 2023, based on the preset amortization schedule.

Depreciation expense is anticipated to increase to \$26.7 million in 2022 and \$28.3 million in 2023, due to capital spending to maintain an aging infrastructure and additions to capital equipment, buildings and structures.

Other Operating Expenses

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

Other operating expenses are anticipated to be \$73.7 million in 2022 and \$86.8 million in 2023. As discussed in Compensated Mitigation in Section 2 (page 2-19), payments to contract holders to reduce their water deliveries is \$14.7 million in 2022 and \$12.7 million in 2023. Board elections occur in even-numbered years and cause year-over-year variances. Extraordinary cost projects also may cause variability from year-to-year. In 2021 there were \$3.8 million in Extraordinary maintenance projects, with \$4.2 million planned in 2022 and \$2.6 million planned in 2023. Insurance expense is also seeing a 20-25% increase in premiums.

Interest & Other Non-Operating Expenses

Interest expense is anticipated to be \$27.5 million in 2021, \$18.8 million in 2022 and \$17.5 million in 2023. 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.

In 2021, the NIA reallocation occurred, which included a write-down of the NIA asset of \$7.2 million.

The AWBA is receiving \$7.0 million in 2022 for long-term storage credit (LTSC) purchases and no transfer in 2023. Annually, the Board determines the amount to transfer based on the AWBA requested amounts for LTSC purchases based on the AWBA Annual Report. The AWBA may request funds for LTSC purchases in 2022 when the AWBA Annual report is completed in 2021. In addition, \$0.5 million is anticipated to be transferred to AWBA for administration costs in 2022 and 2023.

CHANGE IN NET POSITION

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

<i>(Millions)</i>	2021 Projection	2022 Budget	2023 Budget	22 vs 21 incr/(decr)	23 vs 22 incr/(decr)
Revenues	\$ 382.4	\$ 381.2	\$ 404.8	\$ (1.2)	\$ 23.6
Expenses	(276.3)	(296.0)	(291.4)	(19.7)	4.6
Change in net position	106.1	85.2	113.4	(20.9)	28.2
Net position at beginning of period	639.5	745.6	830.8	106.1	85.2
Net position at end of period	\$ 745.6	\$ 830.8	\$ 944.2	\$ 85.2	\$ 113.4

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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Water Deliveries with credits (acre-feet in thousands)	1,374	1,441	1,375	1,245	1,118
Operating Revenues					
Water operations & maintenance charges	\$ 186,452	\$ 172,740	\$ 189,050	\$ 234,504	\$ 248,741
Water service capital charges	28,053	39,904	77,179	36,698	40,984
Power & basin development fund revenues	52,703	16,079	7,928	8,040	8,130
Reimbursements and other revenues	2,233	3,049	1,825	1,881	2,144
Total Operating Revenues	269,441	231,772	275,982	281,123	299,999
Operating Expenses					
Salaries and related costs	(65,340)	(67,655)	(69,140)	(74,325)	(78,912)
Pumping energy & capacity charges	(75,900)	(68,157)	(68,046)	(64,956)	(64,410)
Transmission	(17,415)	(14,578)	(15,912)	(16,037)	(15,580)
Amortization of permanent service right	(23,162)	(23,001)	(23,001)	(23,001)	(21,782)
Depreciation and amortization	(24,916)	(24,991)	(25,882)	(26,612)	(28,299)
Other operating expenses					
Outside services	(28,543)	(19,321)	(24,081)	(50,377)	(48,751)
Materials and supplies	(7,834)	(8,120)	(9,004)	(8,912)	(9,019)
Overhead	4,383	4,611	4,669	5,792	5,274
Other expenses	(37,043)	(8,165)	(8,075)	(11,226)	(11,890)
Subtotal	(69,037)	(30,995)	(36,491)	(64,723)	(64,386)
Total Operating Expenses	(275,770)	(229,377)	(238,472)	(269,654)	(273,369)
Operating Income/(Loss)	(6,329)	2,395	37,510	11,469	26,630
Non-operating Revenues					
Property taxes					
General ad valorem tax	54,663	58,616	63,299	65,620	69,266
Water storage tax	22,055	23,617	23,617	26,459	27,928
Subtotal	76,718	82,233	86,916	92,079	97,194
Interest income & other non-operating revenues	18,904	16,293	19,478	8,016	7,643
Total Non-operating Revenues	95,622	98,526	106,394	100,095	104,837
Non-operating Expenses					
Disbursements to AWBA	(4,561)	(6,361)	(10,344)	(7,545)	(545)
Interest and uncollectable tax expense	(22,403)	(21,295)	(27,501)	(18,843)	(17,479)
Total Non-operating Expenses	(26,964)	(27,656)	(37,845)	(26,388)	(18,024)
Total Non-operating Revenues/(Loss)	68,658	70,870	68,549	73,707	86,813
Change in Net Position	62,329	73,265	106,059	85,176	113,443
Cumulative-effect of Change in Accounting Principles	-	-	-	-	-
Net Position at beginning of year	503,843	566,172	639,437	745,496	830,672
Net Position at end of year	\$ 566,172	\$ 639,437	\$ 745,496	\$ 830,672	\$ 944,115

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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Water Deliveries (acre-feet in thousands)	121	204	111	96	117
Revenues					
Reimbursements and other revenues	1,677	2,772	1,544	1,354	1,630
Total Revenues	\$ 1,677	\$ 2,772	\$ 1,544	\$ 1,354	\$ 1,630
Expenses					
Salaries and related costs	(231)	(220)	(157)	(255)	(267)
Other operating expenses					
Outside services	(100)	(541)	(223)	(214)	(357)
Materials and supplies	(46)	(87)	(72)	(101)	(102)
Other expenses	(808)	(886)	(717)	(749)	(819)
Water inventory adjustment	-	-	-	-	-
Subtotal	(954)	(1,514)	(1,012)	(1,064)	(1,278)
Total Expenses	\$ (1,185)	\$ (1,734)	\$ (1,169)	\$ (1,319)	\$ (1,545)
Change in Net Position	492	1,038	375	35	85
Net Position at beginning of year	5,660	6,152	7,190	7,565	7,600
Net Position at end of year	\$ 6,152	\$ 7,190	\$ 7,565	\$ 7,600	\$ 7,685
Expense Summary					
Agua Fria	(154)	(81)	(63)	(105)	(110)
Hieroglyphic Mountains	(274)	(266)	(295)	(172)	(235)
Lower Santa Cruz	(387)	(476)	(374)	(473)	(511)
Pima Mine Road	(94)	(155)	(91)	(209)	(215)
Superstition Mountain	(255)	(316)	(273)	(230)	(340)
Tonopah	(21)	(440)	(73)	(130)	(134)
Total Expenses	\$ (1,185)	\$ (1,734)	\$ (1,169)	\$ (1,319)	\$ (1,545)

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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Expenses					
Salaries and related costs	\$ (406)	\$ 16	\$ (164)	\$ (490)	\$ (236)
Other operating expenses					
Outside services	(5,579)	(10)	(3,500)	(3,098)	(2,040)
Materials and supplies	(4)	-	-	(23)	(10)
Other costs	(398)	-	(171)	(593)	(286)
Subtotal	(5,981)	(10)	(3,671)	(3,714)	(2,336)
Total Expenses	\$ (6,387)	\$ 6	\$ (3,835)	\$ (4,204)	\$ (2,572)
Expense Summary					
EM-Storm Damage Repairs Pool 34*	\$ -	\$ -	\$ (3,835)	\$ -	\$ -
EM-MWP Suction Tubes & BSH Right Manifold Reline**	-	-	-	(4,204)	(2,572)
EM-Siphon Repairs at Salt River**	(6,387)	6	-	-	-
	-	-	-	-	-
Total Expenses	\$ (6,387)	\$ 6	\$ (3,835)	\$ (4,204)	\$ (2,572)

*Funded through Extraordinary Cost Reserves and not part of Fixed O&M Rate.

**Funded through "Big R" and not part of Fixed O&M Rate.

Extraordinary Maintenance Project Included in the General Fund Operating Expenses

Mark Wilmer Pumping Plant Suction Tubes & Bouse Hills Right Manifold Reline

PROJECT #: 710040

FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2022

COMPLETION DATE: 4th Quarter 2023

TOTAL PROJECT COST: \$6,776,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 6,776	\$ -	\$ 4,204	\$ 2,572	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

The original coal tar enamel lining is failing in all six suction tubes at Mark Wilmer Pumping Plant and the Right Manifold at the Bouse Hills Pumping Plant, as confirmed by physical inspections in the last several years. Large areas of the enamel have completely disbonded from the primer coat in many places. Water has also seeped through the liner and has begun corroding the steel in many locations. While much of the original primer is providing some protection, it also is failing with cracks throughout forming corrosion lines in the substrate. Failure modes for the lining include blistering, peeling, and checking. Water has permeated these defects and rust is staining the lining. Corrosion results in the loss of steel, which can lead to rupture of the system. The estimated loss of lining on the suction tubes for all units ranges from a minimum of about 60% to a maximum of about 80%.

JUSTIFICATION:

The project is justified by the high level of criticality should the corrosion of the steel piping continue and section loss in the piping occurs.

OPERATING IMPACT:

The project is scheduled to occur during the scheduled west half plant summer outages, so no impacts are anticipated.

SOCIAL IMPACT:

No impacts are anticipated.

ENVIRONMENTAL IMPACT:

Project has some environmental concerns that are addressed during construction with laboratory testing of all materials being disposed of including blast media and the removed coal tar enamel coating.



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.

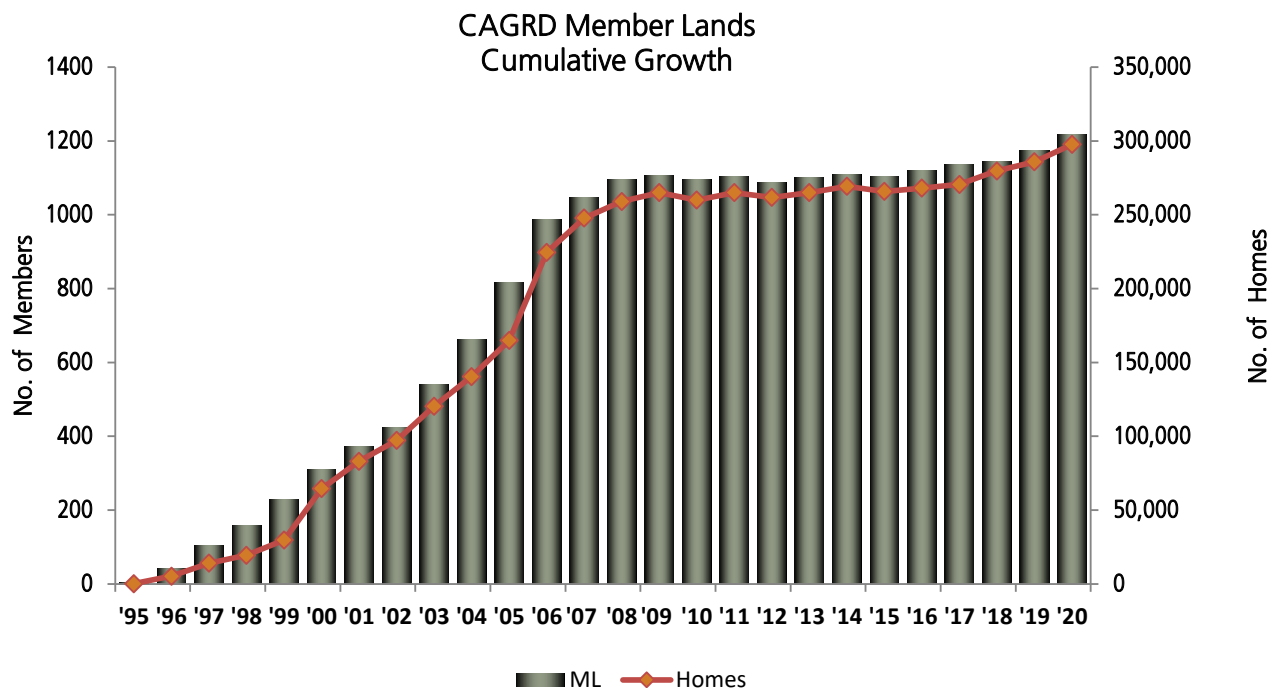


REPLENISHMENT OBLIGATION

The first members were enrolled in the CAGRD in 1995. As shown on the following graph, the number of enrolled ML subdivisions has grown to more than 1,218 through 2020 with approximately 298,000 enrolled lots falling within the ML boundaries. As indicated in the graph, ML enrollment has slowed considerably in 2008 due to the downturn in the Arizona housing market, but has begun to rebound in recent years. For purposes of developing the budget, it was assumed there will be a modest increase in the rate of ML enrollments during 2022 and 2023. The number of enrolled MSAs currently stands at 23. As the number of MLs and MSAs grows, CAGRD's replenishment obligation also will grow.

The CAGRD incurs three different kinds of replenishment obligations:

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



REVENUES

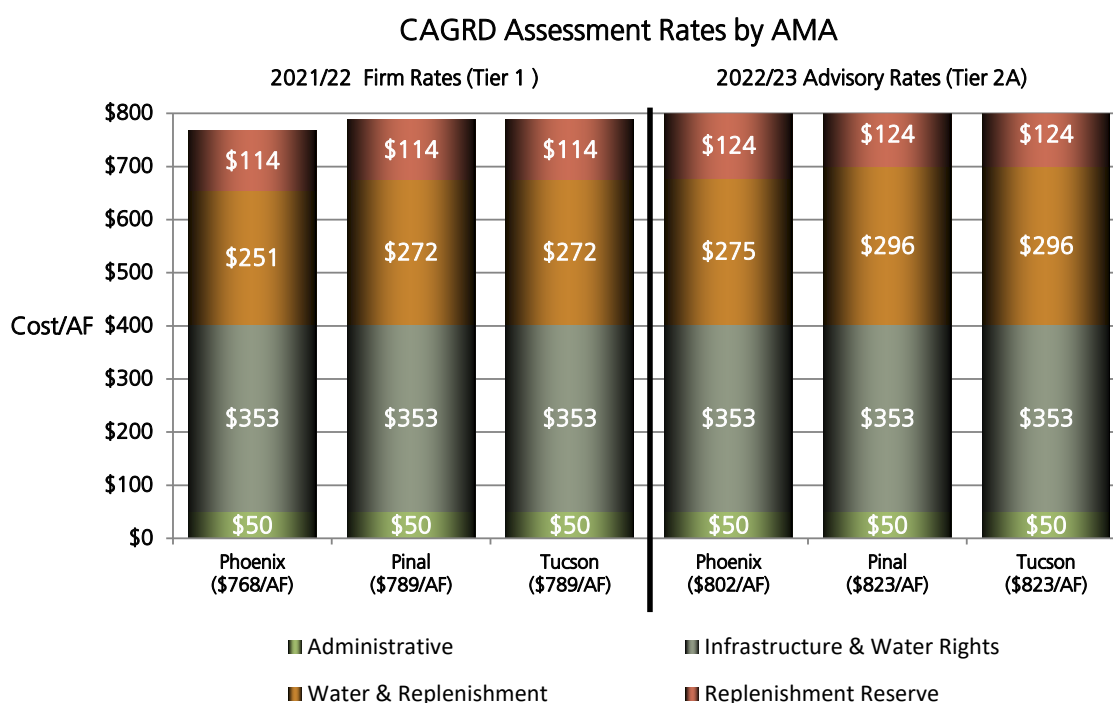
CAGRDR was established with the requirement that all of the costs of CAGRDR be paid by its members. CAGRDR has three primary sources of revenues: annual replenishment assessments, up-front fees and membership dues. In addition, CAGRDR accrues interest on the reserves. CAGRDR rates go into effect following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

Annual replenishment assessments are collected from CAGRDR 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. CAGRDR'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 CAGRDR.

The water and replenishment component is designed to cover annual water and replenishment costs that will be incurred by CAGRDR in meeting the replenishment obligation resulting from its members' actual use of excess groundwater. The administrative component pays for CAGRDR's operating costs, including wages, benefits and overhead. A portion of the administrative component also supports the CAGRDR 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 and to construct additional infrastructure (e.g., replenishment facilities) as the need and opportunity arise.

The replenishment reserve component is designed to cover water and replenishment costs associated with establishing and maintaining a replenishment reserve of long-term storage credits in each AMA, as required by statute.



Up-front fees are generally collected from CAGR D 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.

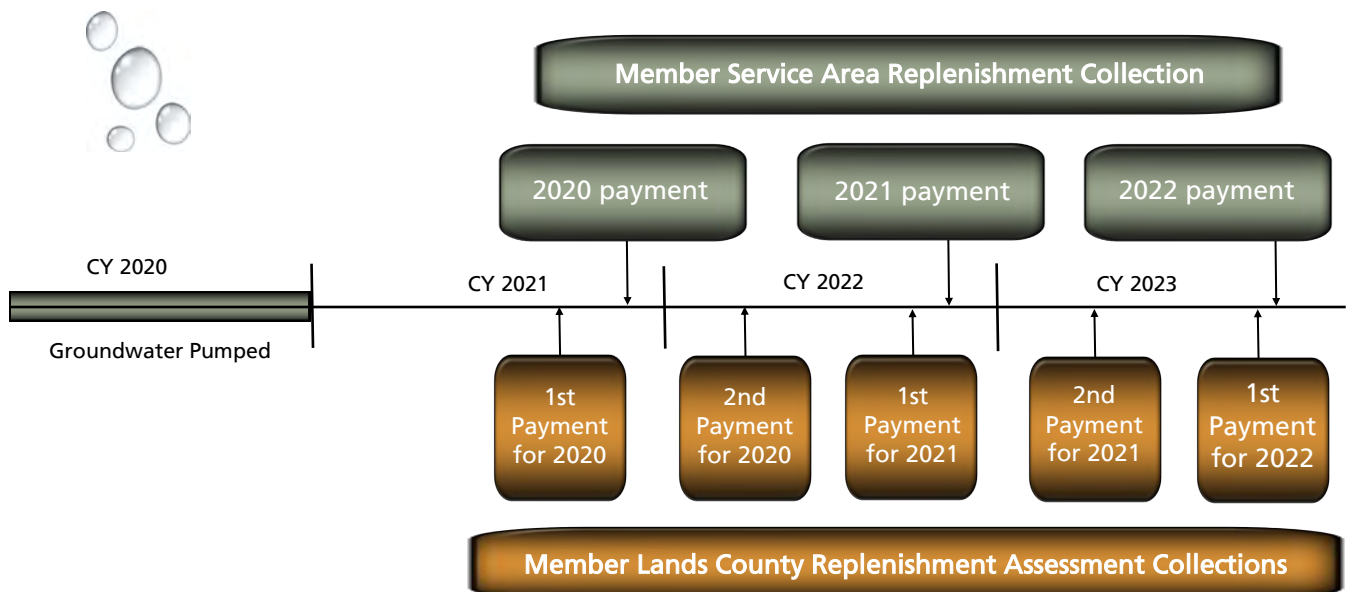
An enrollment fee is collected from applicants who enroll a subdivision as a ML of the CAGR D. The fee is based on the number of housing units in the proposed subdivision and will be used in conjunction with the infrastructure and water rights component to purchase water rights and develop infrastructure.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

MSAs also pay an enrollment fee, which is currently a flat fee of \$5,000, to cover the administration costs.

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 CAGR D's replenishment reserve program. For MLs, the replenishment reserve fee is collected along with the activation fee and is based on the subdivision's projected build-out excess groundwater demand. For MSAs, the replenishment reserve fee is collected with the annual replenishment fee and is based on the increase in excess groundwater delivered within the service area during the previous year.

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



EXPENSES

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. In 2021, CAGRDR is acquiring 18,185 acre-feet of NIA priority rights as part of the NIA reallocation. The back capital charges paid to the General Fund are recorded as an expense to CAGRDR, a revenue to the General Fund and eliminated at the District consolidated level. This expense is the significant 2021 increase in both other expenses and interest expense. CAGRDR will pay for the acquisition in 5 equal payments, recording interest expense in each of the next 4 years. The NIA asset value is planned to be moved from the General Fund to CAGRDR in 2021.

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 Member Service Area Replenishment Collection diagram (see page 4-28). Currently, CAGRDR is replenishing in the year subsequent to the year pumped.

WATER SUPPLY PROGRAM



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

In 2019, CAGRDR acquired a large acquisition of long-term storage credits and wet water for 25 years from the Gila River Indian Community and Gila River Water Storage LLC. CAWCD (through CAGRDR) issued \$20 million of 5-year revenue bonds in July 2019 to pay for a portion of the credit purchase. The Infrastructure & Water Rights revenue was pledged for repayment of the bonds. This financing does not impact CAGRDR operations.

CHANGE IN NET POSITION

Net position is anticipated to increase \$37.7 million in 2022 and \$43.3 million in 2023. This increase is primarily due to the continued generation of revenues and establishment of 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)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Operating Revenues					
Reimbursements & other operating revenues	44,716	43,893	63,873	55,125	61,803
Total Operating Revenues	\$ 44,716	\$ 43,893	\$ 63,873	\$ 55,125	\$ 61,803
Operating Expenses					
Salaries and related costs	(1,034)	(1,089)	(1,117)	(1,327)	(1,389)
Depreciation	(61)	(61)	(61)	(61)	(61)
Other operating expenses					
Outside services	(209)	(2,843)	(450)	(683)	(763)
Overhead	(1,041)	(1,121)	(1,165)	(1,440)	(1,507)
Water for recharge	(13,248)	(12,061)	(11,623)	(13,179)	(14,827)
Other expenses	(18)	(11)	(15,871)	(55)	(55)
Subtotal	(14,516)	(16,036)	(29,109)	(15,357)	(17,152)
Total Operating Expenses	(15,611)	(17,186)	(30,287)	(16,745)	(18,602)
Net Operating Income/(Loss)	29,105	26,707	33,586	38,380	43,201
Non-operating Revenues/(Expenses)					
Interest income	1,152	560	1,573	259	793
Interest expense	(352)	(453)	(8,114)	(913)	(649)
Net Non-operating Income/(Loss)	800	107	(6,541)	(654)	144
Change in Net Position	29,905	26,814	27,045	37,726	43,345
Net Position as beginning of period	182,209	212,114	238,928	265,973	303,699
Net Position at end of period	\$ 212,114	\$ 238,928	\$ 265,973	\$ 303,699	\$ 347,044

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

YEAR OBLIGATION ESTABLISHED	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Replenishment Obligation by AMA					
Phoenix AMA	28,062	26,378	29,437	30,538	30,538
Pinal AMA	1,040	899	972	972	1,008
Tucson AMA	3,125	2,476	2,677	2,777	2,777
Total Replenishment Obligation	32,227	29,753	33,086	34,287	34,323

YEAR OVER YEAR OBLIGATION ACTIVITY BY AMA	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
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REPLENISHMENT OBLIGATION ACTIVITY

Phoenix AMA

Outstanding Obligation - beginning of the year	6,852	10,993	26,378	29,437	30,538
Prior Year obligation adjustments	(2,639)	(1,643)	5,178	-	-
Annual Obligations	28,062	26,378	29,437	30,538	30,538
Annual Credits accrued - purchased water and credits	(21,282)	(9,350)	(31,556)	(29,437)	(30,538)
Outstanding Obligation - end of the year	10,993	26,378	29,437	30,538	30,538

Pinal AMA

Outstanding Obligation - beginning of the year	1,372	1,040	899	972	972
Prior Year obligation adjustments	(148)	(141)	-	-	-
Annual Obligations	1,040	899	972	972	1,008
Annual Credits accrued - purchased water and credits	(1,224)	(899)	(899)	(972)	(972)
Outstanding Obligation - end of the year	1,040	899	972	972	1,008

Tucson AMA

Outstanding Obligation - beginning of the year	3,986	5,964	2,476	2,677	2,777
Prior Year obligation adjustments	(647)	(646)	201	-	-
Annual Obligations	3,125	2,476	2,677	2,777	2,777
Annual Credits accrued - purchased water and credits	(500)	(5,318)	(2,677)	(2,677)	(2,777)
Outstanding Obligation - end of the year	5,964	2,476	2,677	2,777	2,777

TOTAL FOR ALL AMAs

Outstanding Obligation - beginning of the year	12,210	17,997	29,753	33,086	34,287
Prior Year obligation adjustments	(3,434)	(2,430)	-	-	-
Annual Obligations	32,227	29,753	33,086	34,287	34,323
Annual Credits accrued - purchased water and credits	(23,006)	(15,567)	(29,753)	(33,086)	(34,287)
Outstanding Obligation - end of the year	17,997	29,753	33,086	34,287	34,323

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT

RESERVE BALANCES

Cash Basis (Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Water and Replenishment:					
Beginning Fund Balance	\$ 630	\$ 1,923	\$ 6,102	\$ 7,601	\$ 8,559
Revenue	6,365	7,480	8,299	8,257	9,989
Water/LTSC Purchases	(5,110)	(3,317)	(6,818)	(7,312)	(8,108)
Interest Income	38	16	18	13	80
Ending Fund Balance	<u>\$ 1,923</u>	<u>\$ 6,102</u>	<u>\$ 7,601</u>	<u>\$ 8,559</u>	<u>\$ 10,520</u>
Replenishment Reserve:					
Beginning Fund Balance	\$ 4,951	\$ 1,904	\$ 1,244	\$ 3,191	\$ 4,243
Revenue	3,523	3,565	5,318	4,608	5,320
Water/LTSC purchases	(6,708)	(4,236)	(3,383)	(3,560)	(4,262)
Interest income	138	11	12	4	29
Ending Fund Balance	<u>\$ 1,904</u>	<u>\$ 1,244</u>	<u>\$ 3,191</u>	<u>\$ 4,243</u>	<u>\$ 5,330</u>
Infrastructure and Water Rights:					
Beginning Fund Balance	\$ 83,015	\$ 32,360	\$ 38,788	\$ 62,426	\$ 80,868
Revenue	31,481	32,527	47,823	39,480	43,104
Proceeds from debt financing	19,862	-	-	-	-
Proceeds from inventory transfer to replen reserve	-	1,519	275	103	167
Reimbursement from water and replenishment for obligation	720	-	5,779	6,216	6,884
External LTSC purchases	(100,606)	(11,596)	(9,510)	(6,761)	(6,426)
NIA reallocation	-	-	(7,134)	(7,134)	(7,134)
GRIC and other lease considerations	(470)	(5,448)	(2,885)	(2,894)	(2,981)
Water delivery costs	-	(5,962)	(5,836)	(6,447)	(7,110)
Funds used to offset obligations	-	-	(194)	-	-
Technical studies and other operating expenses	(776)	(1,032)	(1,019)	(401)	(421)
Debt service payments	(1,734)	(3,973)	(3,972)	(3,973)	(3,973)
Interest income	868	393	311	253	720
Ending Fund Balance	<u>\$ 32,360</u>	<u>\$ 38,788</u>	<u>\$ 62,426</u>	<u>\$ 80,868</u>	<u>\$ 103,698</u>
Administrative:					
Beginning Fund Balance	\$ 1,836	\$ 1,937	\$ 2,186	\$ 2,423	\$ 1,247
Revenue	1,547	1,774	1,961	1,926	1,956
Operating expenses	(1,484)	(1,539)	(1,735)	(3,104)	(1,785)
Interest income	38	14	11	2	8
Ending Fund Balance	<u>\$ 1,937</u>	<u>\$ 2,186</u>	<u>\$ 2,423</u>	<u>\$ 1,247</u>	<u>\$ 1,426</u>

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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Phoenix AMA					
Beginning Fund Balance	\$ 116	\$ 1,000	\$ 5,661	\$ 6,387	\$ 7,428
Revenue	5,620	6,657	7,399	7,694	8,788
Water/LTSC Purchases	(4,759)	(2,005)	(6,687)	(6,665)	(7,397)
Interest Income	23	9	14	12	70
Ending Fund Balance	\$ 1,000	\$ 5,661	\$ 6,387	\$ 7,428	\$ 8,889
Pinal AMA					
Beginning Fund Balance	\$ 205	\$ 82	\$ 113	\$ 149	\$ 366
Revenue	116	220	166	217	330
Water/LTSC Purchases	(244)	(190)	(131)	-	-
Interest Income	5	1	1	-	3
Ending Fund Balance	\$ 82	\$ 113	\$ 149	\$ 366	\$ 699
Tucson AMA					
Beginning Fund Balance	\$ 309	\$ 841	\$ 328	\$ 639	\$ 765
Revenue	629	603	734	773	871
Water/LTSC Purchases	(107)	(1,122)	(426)	(648)	(711)
Interest Income	10	6	3	1	7
Ending Fund Balance	\$ 841	\$ 328	\$ 639	\$ 765	\$ 932
Total - All AMAs					
Beginning Fund Balance	\$ 630	\$ 1,923	\$ 6,102	\$ 7,175	\$ 8,559
Revenue	6,365	7,480	8,299	8,684	9,989
Water/LTSC Purchases	(5,110)	(3,317)	(7,244)	(7,313)	(8,108)
Interest Income	38	16	18	13	80
Ending Fund Balance	\$ 1,923	\$ 6,102	\$ 7,175	\$ 8,559	\$ 10,520

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

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Phoenix AMA					
Beginning Fund Balance	\$ 4,394	\$ 1,190	\$ 1,220	\$ 3,058	\$ 3,840
Revenue	3,178	3,194	4,860	4,129	4,767
Water/LTSC Purchases	(6,505)	(3,172)	(3,032)	(3,351)	(3,969)
Interest Income	123	8	10	4	26
Ending Fund Balance	\$ 1,190	\$ 1,220	\$ 3,058	\$ 3,840	\$ 4,664
Pinal AMA					
Beginning Fund Balance	\$ 73	\$ 3	\$ 7	\$ 14	\$ 22
Revenue	56	99	83	115	140
Water/LTSC Purchases	(128)	(95)	(77)	(107)	(126)
Interest Income	2	-	1	-	-
Ending Fund Balance	\$ 3	\$ 7	\$ 14	\$ 22	\$ 36
Tucson AMA					
Beginning Fund Balance	\$ 484	\$ 711	\$ 17	\$ 120	\$ 381
Revenue	289	272	376	364	413
Water/LTSC Purchases	(75)	(969)	(274)	(103)	(167)
Interest Income	13	3	1	-	3
Ending Fund Balance	\$ 711	\$ 17	\$ 120	\$ 381	\$ 630
Total - All AMAs					
Beginning Fund Balance	\$ 4,951	\$ 1,904	\$ 1,244	\$ 3,192	\$ 4,243
Revenue	3,523	3,565	5,319	4,608	5,320
Water/LTSC Purchases	(6,708)	(4,236)	(3,383)	(3,561)	(4,262)
Interest Income	138	11	12	4	29
Ending Fund Balance	\$ 1,904	\$ 1,244	\$ 3,192	\$ 4,243	\$ 5,330

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.

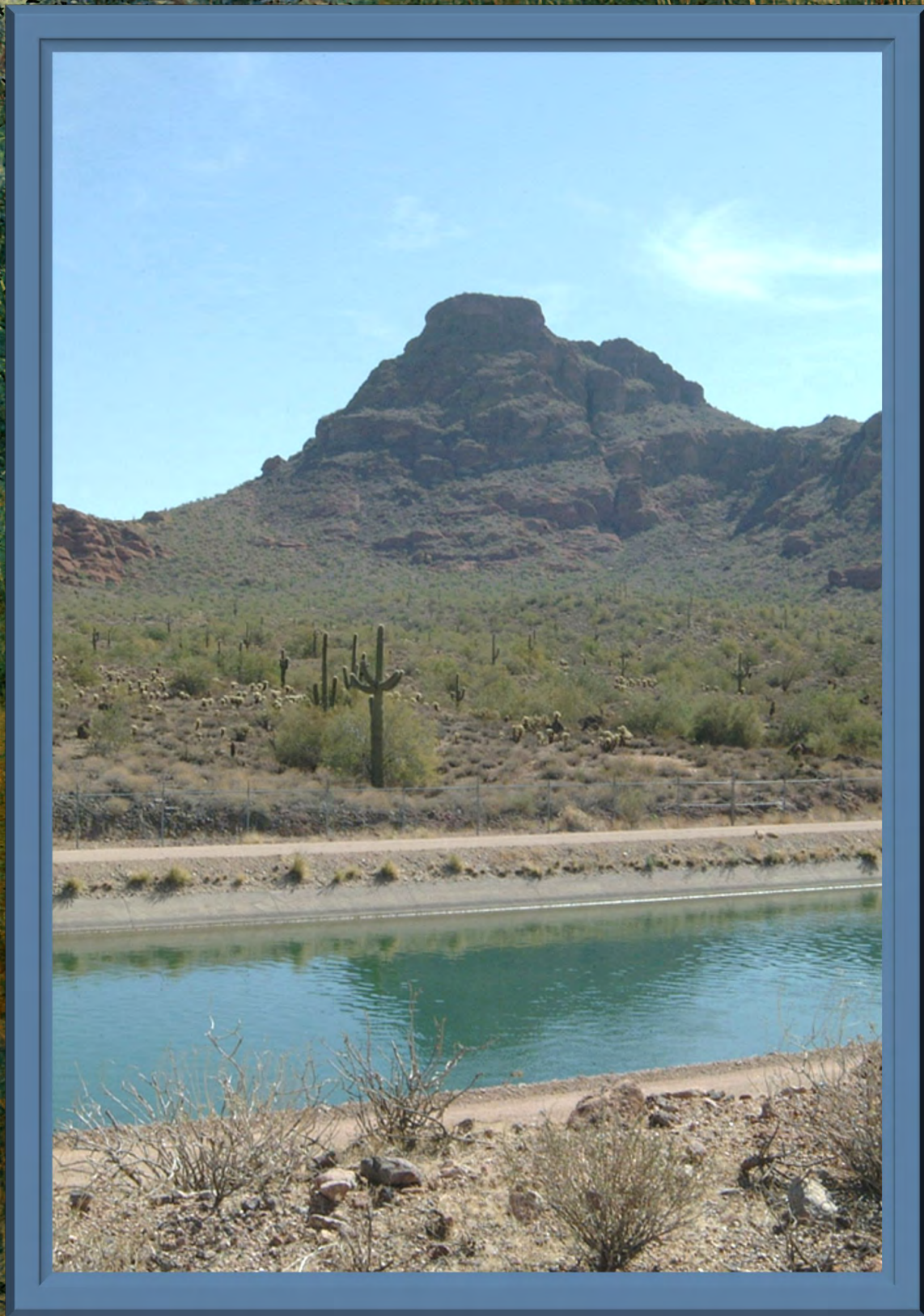


STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION

SUPPLEMENTAL WATER ACCOUNT

(Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Other expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Operating Expenses	-	-	-	-	-
Non-operating Revenues/(Expenses)					
Interest income	308	297	(2)	132	133
Total Non-operating Revenues	308	297	(2)	132	133
Change in Net Position	308	297	(2)	132	133
Net Position at beginning of period	8,507	8,815	9,112	9,110	9,242
Net Position at end of period	\$ 8,815	\$ 9,112	\$ 9,110	\$ 9,242	\$ 9,375



CAP Canal near Black Mountain

CAPTIVE INSURANCE FUND

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

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

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

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

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



STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION
CAPTIVE INSURANCE FUND

(Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Operating Revenues					
Reimbursements and other operating revenues	\$ 9,666	\$ 10,549	\$ 11,042	\$ 11,706	\$ 12,702
Total Operating Revenues	<u>9,666</u>	<u>10,549</u>	<u>11,042</u>	<u>11,706</u>	<u>12,702</u>
Operating Expenses					
Other operating expenses					
Outside services	(254)	(229)	(228)	(229)	(268)
Other expenses	(7,862)	(8,434)	(9,560)	(10,805)	(11,478)
Total Operating Expenses	<u>(8,116)</u>	<u>(8,663)</u>	<u>(9,788)</u>	<u>(11,034)</u>	<u>(11,746)</u>
Net Operating Income/(Loss)	<u>1,550</u>	<u>1,886</u>	<u>1,254</u>	<u>672</u>	<u>956</u>
Non-operating Revenues/(Expenses)					
Interest and other income	16	29	29	32	35
Total Non-operating Revenues/(Loss)	<u>16</u>	<u>29</u>	<u>29</u>	<u>32</u>	<u>35</u>
Change in Net Position	<u>1,566</u>	<u>1,915</u>	<u>1,283</u>	<u>704</u>	<u>991</u>
Net Position as beginning of period	1,778	3,344	5,259	6,542	7,246
Net Position at end of period	<u>3,344</u>	<u>5,259</u>	<u>6,542</u>	<u>7,246</u>	<u>8,237</u>

CAPITAL BUDGET

The following pages include a capital budget summary for all capital improvement program (CIP) in the 2022 / 2023 budget period, as well as for advisory projects. CIP budgeted amounts are shown for 2022 and 2023 and advisory expenditures are shown for following years. Capital equipment expenditures over the same period are included to complete the total capital budget. A schedule of capital equipment follows the capital budget summary. Individual CIP profiles are shown after the summary tables. Funding sources are indicated for each CIP profile.

CAP's Strategic Plan provides high-level strategic guidance to the organization, supported by several Key Result Areas (KRAs) which identify Strategic Issues for each area. All CIP relate to the Project Reliability KRA, which focuses on providing reliable and cost-effective operations, maintenance, and replacement of CAP infrastructure and technology assets.

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

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

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

Shown below are the capital spending that cover 2019 through 2023.

CAPITAL SPENDING					
	2019	2020	2021	2022	2023
(\$ Millions)	Actuals	Actuals	Projection	Budget	Budget
Capital Improvement Programs	\$ 24.3	\$ 29.3	\$ 29.4	\$ 32.9	\$ 36.8
Capital Equipment	1.8	3.7	2.7	5.2	5.1
Totals	\$ 26.1	\$ 33.0	\$ 32.1	\$ 38.1	\$ 41.9



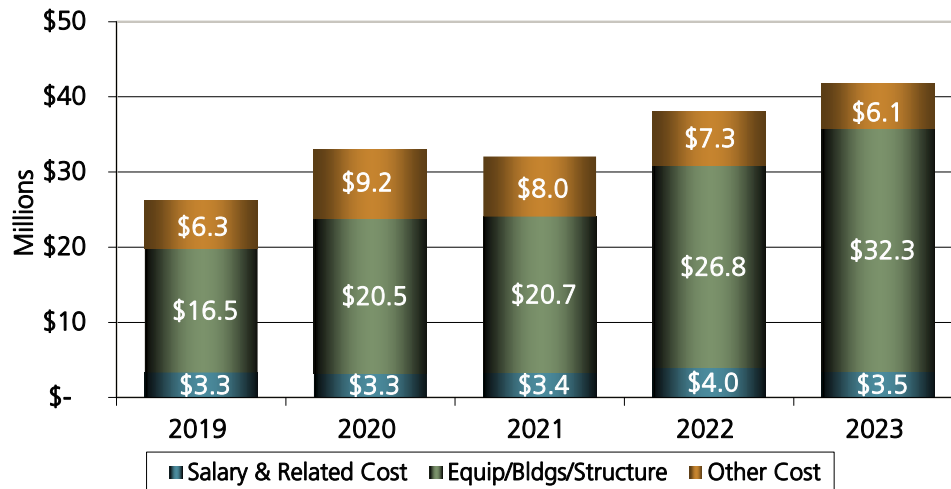
Colorado River

CAPITAL BUDGET SUMMARY

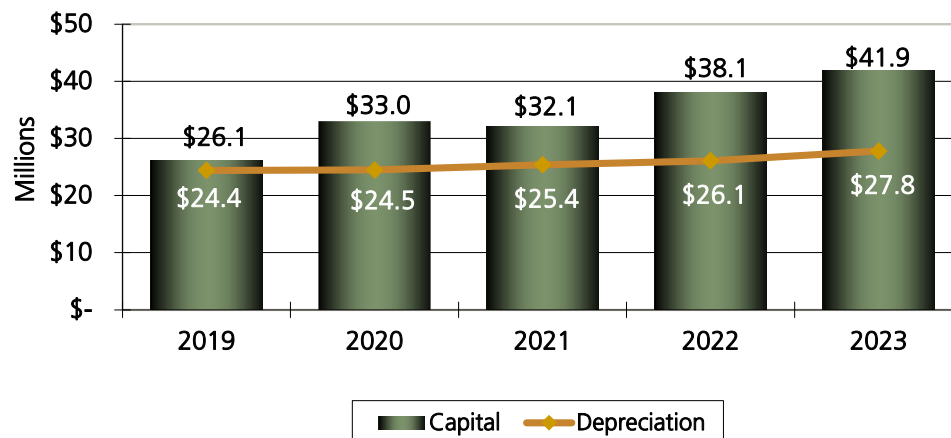
(Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Salaries and related costs	\$ 3,310	\$ 3,366	\$ 3,371	\$ 4,012	\$ 3,472
Equipment, buildings, and structures	16,543	20,484	20,690	26,782	32,361
Other expenses					
Outside services	2,464	5,419	4,131	2,792	2,151
Materials, supplies & other expenses	437	273	371	179	192
Capitalized interest	-	-	-	-	-
Overhead expenses	3,342	3,490	3,504	4,352	3,767
Subtotal other expenses	6,243	9,182	8,006	7,323	6,110
Total capital	\$ 26,096	\$ 33,032	\$ 32,067	\$ 38,117	\$ 41,943

Total Capital Spending



Comparison of Capital Spending and Depreciation



CAPITAL BUDGET SUMMARY

(Thousands)

	Total Project	Pre-2022 Project	2022 Budget	2023 Budget
CURRENT CAPITAL IMPROVEMENT PROGRAM (CIP) PROJECTS				
Air Compressors Brady, Picacho, Red Rock Pumping Plants	\$ 1,177	\$ -	\$ -	\$ 451
Backup Power System Replacements at Checks, Turnouts, & Microwave Sites	12,288	6,602	3,300	2,234
Coffer Dam Design & Fabricate	2,241	937	1,304	-
Condition-Based Monitoring	11,312	8,630	308	1,021
Discharge Valves at Bouse Hills, Little Harquahala & Hassayampa Pumping Plants	2,718	-	979	824
Electromechanical Relay Replacements Phase 2	14,544	3,154	2,617	1,588
Elevator System Replacements Phase 2	8,476	2,280	3,216	2,820
Elevator System Replacements Phase 3	4,000	-	-	765
Fire Hydrant Feeder Valves at Headquarters	1,272	81	180	1,011
Fire Protection CO2 Modifications at Waddell Pump / Generation Plant	1,856	1,837	19	-
Fire Protection at San Xavier, Twin Peaks, Sandario, Brawley, Tucson Field Office	11,321	-	930	4,514
Fire Protection System Upgrades at Mark Wilmer Pumping Plant	7,962	956	4,314	2,692
Flowmeter Replacement at Turnouts	1,690	1,586	104	-
HVAC Replacement Headquarters Building 2	6,530	-	644	4,853
HVAC Replacement at Mark Wilmer Pumping Plant	5,117	3,413	1,685	19
Isolation Valves at Black Mountain & Snyder Hill (Pilot)	2,066	237	101	1,728
Machine Shop Overhead Crane Improvements	294	265	29	-
Motor Exciters & Control Unit Replacements at West Plants	14,760	9,727	4,363	670
Motor Exciters at Twin Peaks, Sandario, Snyder Hill & Black Mountain	1,421	-	569	735
Network Refresh 2022 / 2023	325	-	125	200
Potable Water Skid Replacements	1,956	13	824	1,119
Potable Water at Pinal Field Office	461	-	176	285
Potable Water System Upgrade at Sandario Pumping Plant	775	458	317	-
Programmable Logic Controller (PLC) Replacements Waddell	5,403	1,525	1,836	1,642
Roof Replacement at Black Mountain & Snyder Hill Pumping Plants	1,034	-	-	132
SCADA Replacement at Control Center	19,215	753	2,142	4,609
Sump Pump Water Level Controls at Pumping Plants	2,030	772	1,118	140
Switchyard Bus Duct Replacement at Waddell Pumping Plant	1,913	1,862	51	-
Switchyard Security at Delaney	618	-	-	618
Transformer Replacement at McCullough	9,184	5,684	1,500	2,000
Windows Server Refresh 2022 / 2023	350	-	150	200
Current CIP Projects - Subtotals			\$ 32,901	\$ 36,870

CAPITAL BUDGET SUMMARY

(Thousands)

	2024 Advisory	2025 Advisory	2026 Advisory	2027 Advisory
CURRENT CAPITAL IMPROVEMENT PROGRAM (CIP) PROJECTS				
Air Compressors Brady, Picacho, Red Rock Pumping Plants	\$ 716	\$ 10	\$ -	\$ -
Backup Power System Replacements at Checks, Turnouts, & Microwave Sites	152	-	-	-
Coffer Dam Design & Fabricate	-	-	-	-
Condition-Based Monitoring	142	1,211	-	-
Discharge Valves at Bouse Hills, Little Harquahala & Hassayampa Pumping Plants	915	-	-	-
Electromechanical Relay Replacements Phase 2	1,833	1,842	1,740	1,770
Elevator System Replacements Phase 2	160	-	-	-
Elevator System Replacements Phase 3	3,235	-	-	-
Fire Hydrant Feeder Valves at Headquarters	-	-	-	-
Fire Protection CO2 Modifications at Waddell Pump / Generation Plant	-	-	-	-
Fire Protection at San Xavier, Twin Peaks, Sandario, Brawley, Tucson Field Office	4,343	1,534	-	-
Fire Protection System Upgrades at Mark Wilmer Pumping Plant	-	-	-	-
Flowmeter Replacement at Turnouts	-	-	-	-
HVAC Replacement Headquarters Building 2	1,033	-	-	-
HVAC Replacement at Mark Wilmer Pumping Plant	-	-	-	-
Isolation Valves at Black Mountain & Snyder Hill (Pilot)	-	-	-	-
Machine Shop Overhead Crane Improvements	-	-	-	-
Motor Exciters & Control Unit Replacements at West Plants	-	-	-	-
Motor Exciters at Twin Peaks, Sandario, Snyder Hill & Black Mountain	117	-	-	-
Network Refresh 2022 / 2023	-	-	-	-
Potable Water Skid Replacements	-	-	-	-
Potable Water at Pinal Field Office	-	-	-	-
Potable Water System Upgrade at Sandario Pumping Plant	-	-	-	-
Programmable Logic Controller (PLC) Replacements Waddell	400	-	-	-
Roof Replacement at Black Mountain & Snyder Hill Pumping Plants	902	-	-	-
SCADA Replacement at Control Center	7,640	3,986	85	-
Sump Pump Water Level Controls at Pumping Plants	-	-	-	-
Switchyard Bus Duct Replacement at Waddell Pumping Plant	-	-	-	-
Switchyard Security at Delaney	-	-	-	-
Transformer Replacement at McCullough	-	-	-	-
Windows Server Refresh 2022 / 2023	-	-	-	-
Current CIP Projects - Subtotals	\$ 21,588	\$ 8,583	\$ 1,825	\$ 1,770

CAPITAL BUDGET SUMMARY

(Thousands)

	Total Project	Pre-2022 Project	2022 Budget	2023 Budget
ADVISORY CIP PROJECTS (POST-2023)				
Agua Fria Siphon Repairs	\$ 9,100	\$ -	\$ -	\$ -
Analytics Platform	1,000	-	-	-
Bus Replacements	2,000	-	-	-
Circuit Breaker Compressed Air System Replacement Hassayampa	500	-	-	-
Communication Cable Replacement Project, Phase 6	3,000	-	-	-
EFP Replace/Refresh	500	-	-	-
Electromechanical Relay Replacement Project	3,500	-	-	-
ERP Hardware Refresh	1,000	-	-	-
Fire Door Upgrade Project	1,000	-	-	-
GIS Air Compressor Replacement Waddell Pumping Plant	250	-	-	-
Headquarters Visitors Center	10,000	-	-	-
Infor Replace/Refresh	850	-	-	-
Iron Mountain Data Center Refresh/Move	500	-	-	-
Machine Shop and Warehouse Flooring Improvement	1,000	-	-	-
Maintenance Server Refresh	200	-	-	-
Multi-Use Building Bouse Maintenance Yard	500	-	-	-
Network Refresh WAN System (7 years)	2,000	-	-	-
Pipeline Recoating Project	10,000	-	-	-
Reconfigure Headquarters Building 2 Maintenance Area	2,006	-	-	-
Discharge Valve Replacements	2,000	-	-	-
SCADA Server Room Adaptation	200	-	-	-
SCADA System PLC Replacement	5,500	-	-	-
Security System Replacement	2,000	-	-	-
SMART System Replace/Refresh	400	-	-	-
Storage/Backup System Refresh	1,800	-	-	-
Transmission - General Projects	6,000	-	-	-
Trash Rake Replacement Project	3,500	-	-	-
Unit Breaker Replacements	8,500	-	-	-
Waste Water Treatment Plant Conversion Waddell Pumping Plant	2,500	-	-	-
Wi-Fi Refresh	400	-	-	-
Advisory CIP Projects (Post-2023) - Subtotals		- \$	- \$	-
Capital Improvement Plan (CIP) - Totals			\$ 32,901	\$ 36,870
Capital Equipment - Totals*			\$ 5,216	\$ 5,073
CAPITAL BUDGET - TOTALS			\$ 38,117	\$ 41,943

*Capital equipment detail on following page

CAPITAL BUDGET SUMMARY

(Thousands)

	2024 Advisory	2025 Advisory	2026 Advisory	2027 Advisory
ADVISORY CIP PROJECTS (POST-2023)				
Agua Fria Siphon Repairs	\$ -	\$ 600	\$ 8,500	\$ -
Analytics Platform	1,000	-	-	-
Bus Replacements	2,000	-	-	-
Circuit Breaker Compressed Air System Replacement Hassayampa	-	500	-	-
Communication Cable Replacement Project, Phase 6	1,000	2,000	-	-
EFP Replace/Refresh	500	-	-	-
Electromechanical Relay Replacement Project	2,000	1,500	-	-
ERP Hardware Refresh	500	-	500	-
Fire Door Upgrade Project	1,000	-	-	-
GIS Air Compressor Replacement Waddell Pumping Plant	250	-	-	-
Headquarters Visitors Center	1,000	5,000	4,000	-
Infor Replace/Refresh	-	850	-	-
Iron Mountain Data Center Refresh/Move	300	200	-	-
Machine Shop and Warehouse Flooring Improvement	500	500	-	-
Maintenance Server Refresh	100	100	-	-
Multi-Use Building Bouse Maintenance Yard	500	-	-	-
Network Refresh WAN System (7 years)	-	-	1,000	1,000
Pipeline Recoating Project	2,500	2,500	2,500	2,500
Reconfigure Headquarters Building 2 Maintenance Area	726	1,280	-	-
Discharge Valve Replacements	500	1,500	-	-
SCADA Server Room Adaptation	-	-	200	-
SCADA System PLC Replacement	500	1,000	2,000	2,000
Security System Replacement	1,000	1,000	-	-
SMART System Replace/Refresh	-	400	-	-
Storage/Backup System Refresh	-	-	-	1,800
Transmission - General Projects	1,500	1,500	1,500	1,500
Trash Rake Replacement Project	-	-	500	3,000
Unit Breaker Replacements	-	500	4,000	4,000
Waste Water Treatment Plant Conversion Waddell Pumping Plant	-	-	500	2,000
Wi-Fi Refresh	-	200	200	-
Advisory CIP Projects (Post-2023) - Subtotals	\$ 17,376	\$ 21,130	\$ 25,400	\$ 17,800
Capital Improvement Plan (CIP) - Totals	\$ 38,964	\$ 29,713	\$ 27,225	\$ 19,570
Capital Equipment - Totals*	\$ 3,890	\$ 5,687	\$ 4,491	\$ 5,806
CAPITAL BUDGET - TOTALS	\$ 42,854	\$ 35,400	\$ 31,716	\$ 25,376

*Capital equipment detail on following page

CAPITAL EQUIPMENT SUMMARY

(Thousands)

	2022 Budget	2023 Budget	2024 Advisory	2025 Advisory	2026 Advisory	2027 Advisory
REPLACEMENTS						
Air Compressor	\$ 250	\$ -	\$ -	\$ -	\$ -	\$ -
Backhoe	125	-	-	-	-	-
Battery System	80	85	-	-	-	-
Bridgeport Mill	25	-	-	-	-	-
Crane	-	1,200	-	-	-	-
Dozer	300	300	-	-	-	-
Dump Truck	320	320	-	-	-	-
Excavator	-	200	-	-	-	-
GNSS Surveying Kit	30	30	-	-	-	-
Loader	-	195	-	-	-	-
Motor Grader	375	375	-	-	-	-
PowerMax Storage	1,800	-	-	-	-	-
Radio	180	-	-	-	-	-
Server Refresh	-	752	-	-	-	-
Surface Grinder	25	-	-	-	-	-
Trash Pump	45	-	-	-	-	-
Trucks, 1/2-Ton (6)	64	139	-	-	-	-
Trucks, 3/4-Ton (11)	195	360	-	-	-	-
Trucks, 1-Ton (3)	-	187	-	-	-	-
Trucks with 10,000-lb. crane	-	230	-	-	-	-
Trucks with utility bed (8)	342	160	-	-	-	-
Trucks, Other (6)	328	45	-	-	-	-
Water Truck (4)	450	150	-	-	-	-
Replacements - Totals	\$ 4,934	\$ 4,728	\$ -	\$ -	\$ -	\$ -
ADDITIONS						
CMM Inspection Equipment	-	125	-	-	-	-
CNC Lathe	135	-	-	-	-	-
Fiber Optic Equipment	37	-	-	-	-	-
Forklift	60	-	-	-	-	-
Infrared Camera	-	25	-	-	-	-
Loader	-	195	-	-	-	-
Transformer Monitor	50	-	-	-	-	-
Additions - Totals	\$ 282	\$ 345	\$ -	\$ -	\$ -	\$ -
POST-2023						
SCADA Server Room Adaptation	-	-	100	-	-	200
VoIP and Collaboration Tools	-	-	100	100	100	-
Computer Equipment & Software	-	-	750	1,500	100	100
Field & Communications Equipment	-	-	1,837	2,929	3,075	4,229
Vehicles	-	-	1,103	1,158	1,216	1,277
Post-2023 - Totals	\$ -	\$ -	\$ 3,890	\$ 5,687	\$ 4,491	\$ 5,806
CAPITAL EQUIPMENT - TOTALS	\$ 5,216	\$ 5,073	\$ 3,890	\$ 5,687	\$ 4,491	\$ 5,806

AIR COMPRESSORS BRADY, PICACHO, RED ROCK PUMPING PLANTS

PROJECT #: 610179
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2023
COMPLETION DATE: 1st Quarter 2025
TOTAL PROJECT COST: \$1,177,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,177	\$ -	\$ -	\$ 451	\$ 716	\$ 10	\$ -	\$ -	\$ -

DESCRIPTION:

The 3 duplex air compressor skids for the Discharge Valve Operating Systems (DVOS) at Brady (BRD), Picacho (PIC) and Red Rock (RED) pumping plants are obsolete. The compressors (original Bauer Model 1K120) are currently performing reliably and are in a maintainable state with basic PM supplies (e.g. air filters, belts, relief valves) still available. Bauer has confirmed that primary component parts of the air compressors are obsolete and no longer fully supported. The DVOS air compressors were put into service in 1990 (30 years). They are at an elevated risk of sudden fatigue / age related type failures.

The air compressors on the original skids provide 1+1 operational redundancy; both can operate simultaneously with a lead / lag function determined by pressure switches on the air receiver tank (see Figure 1.0). Both compressors are powered from a common electrical feed from a single 30A 3ph/480VAC circuit. The current compressors are rated at 7 SCFM at 1300psi, and are each powered by a 7.5HP motor. The actual maximum system pressure is determined by pressure switch 63VSAH/L located on the air receiver located at the discharge of the air compressors. The 63VSAH/L pressure switch is set to start the compressors at 575 psig, and stop at 600 psig. The system pressure is prevented from exceeding 660 psig by relief valves on the compressors and the air receiver upstream of the hydraulic accumulator system.

JUSTIFICATION:

The air compressors (original Bauer Model 1K120) for the discharge valve operating systems at Brady, Picacho and Red Rock pumping plants are obsolete. Although the compressors are currently performing reliably and are in a maintainable state with basic PM supplies (e.g. air filters, belts, relief valves) still available, the OEM has confirmed that primary component parts are obsolete and no longer being supported.

OPERATING IMPACT:

This work will be performed during the fall outage of 2023 and 2024.

SOCIAL IMPACT:

No impacts are anticipated.

ENVIRONMENTAL IMPACT:

No impacts are anticipated.



BACKUP POWER SYSTEM REPLACEMENTS AT CHECKS, TURNOUTS & MICROWAVE SITES

PROJECT #: 610452
FUNDING SOURCE: "Big R"

START DATE: 2nd Quarter 2015
COMPLETION DATE: 1st Quarter 2024
TOTAL PROJECT COST: \$12,288,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 12,288	\$ 6,602	\$ 3,300	\$ 2,234	\$ 152	\$ -	\$ -	\$ -	\$ -

Description:

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

Since the previous budget was prepared, this project's scope has expanded to 48 turnouts, 39 check structures and 6 microwave sites, for a total of 93 units. Consistent with the broader scope, project cost has increased. Higher contract costs have also contributed to the project cost increase.



JUSTIFICATION:

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

OPERATING IMPACT:

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

SOCIAL IMPACT:

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

ENVIRONMENTAL IMPACT:

The new integrated system creates an efficient use of energy.

COFFER DAM DESIGN & FABRICATION

PROJECT #: 610322
FUNDING SOURCE: "Big R"

START DATE: 3rd Quarter 2020
COMPLETION DATE: 4th Quarter 2022
TOTAL PROJECT COST: \$2,241,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 2,241	\$ 937	\$ 1,304	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

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

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

Precast sections from the mock-up will be used and the full-scale effort will build more of the dam segments. This approach will be done in series with the west following the south, using the lessons learned from the shallower south section for the design of the west section.

JUSTIFICATION:

The cofferdam system is required to allow repair of damaged lower panels without a full dewatering of the canal pool. The cofferdams could potentially be used to provide options in the case of a canal breach.

OPERATING IMPACT:

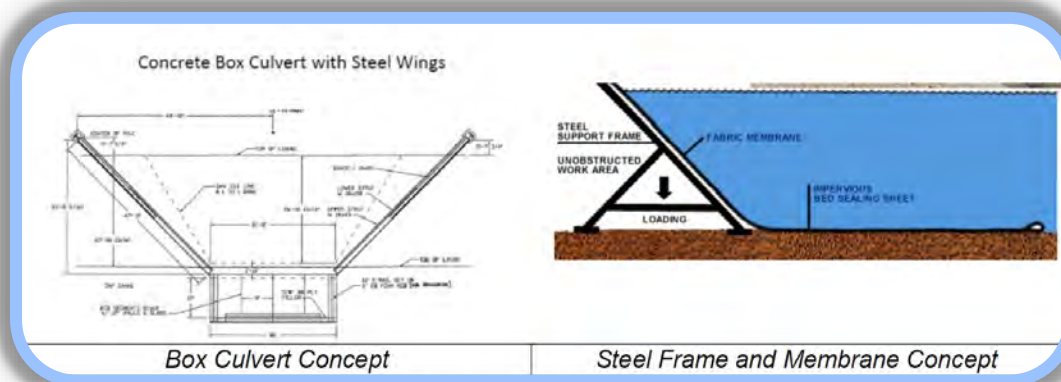
Construction of the cofferdams reduces risk to the canal system by allowing repairs to be completed while the canal remains in service. Cofferdams will also improve the operating efficiency by removing the need to dewater the canal to make repairs, allowing the canal to be operated more efficiently and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

SOCIAL IMPACT:

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

ENVIRONMENTAL IMPACT:

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



CONDITION-BASED MONITORING

PROJECT #: 610317
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2012
COMPLETION DATE: 3rd Quarter 2025
TOTAL PROJECT COST: \$11,312,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 11,312	\$ 8,630	\$ 308	\$ 1,021	\$ 142	\$ 1,211	\$ -	\$ -	\$ -

DESCRIPTION:

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

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

JUSTIFICATION:

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

OPERATING IMPACT:

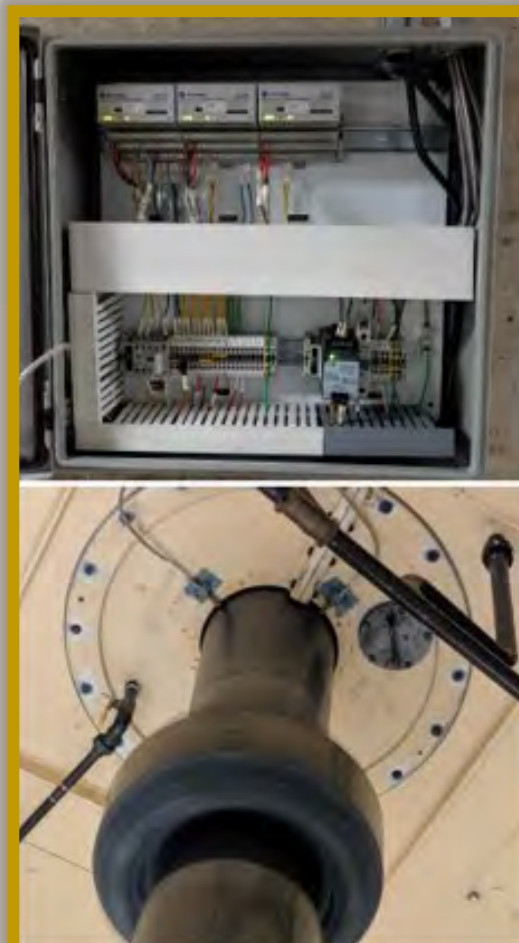
Pump and motor units are essential to water conveyance. CBM improves the operational reliability of all pump units to maintain water deliveries and reduces the likelihood of unplanned and expensive unit failures.

SOCIAL IMPACT:

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

ENVIRONMENTAL IMPACT:

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



DISCHARGE VALVES AT BOUSE HILLS, LITTLE HARQUAHALA & HASSAYAMPA PUMPING PLANTS

PROJECT #: 610180
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2022
COMPLETION DATE: 4th Quarter 2024
TOTAL PROJECT COST: \$2,718,000

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

	Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$	2,718	\$ -	\$ 979	\$ 824	\$ 915	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: Each pump unit has a discharge valve that is necessary for proper operations; these valves control flow (on/off), and are used to protect the pump unit. It is important that these critical assets are reliable for CAP operations to deliver water. Due to their size, these large diameter valves have long manufacturing lead times, that takes approximately 12 months for procurement.

This project will provide replacement of the remaining fourteen (14) failing valves at 3 pumping plants, plus a critical standby valve of each size for emergency use. Installation will be by the CAP Heavy Overhaul Group (HOGs) and fabrication of ancillary components will be by CAP's machine shop and industrial coatings group. Fabrication by supplier (Val-Matic) occurs over three years, with valves being provided each year; 2022, 2023, and 2024. The final 66-inch valve will be received in 2024, and installed in the planned 2025 pumping outage.

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

OPERATING IMPACT: The installation of new discharge valves is performed during the West summer outage each year. During the outage, the plants typically operate only on one side or the other, so the installation of the valves at each location is matched to which side is inactive in a given summer outage. The installation of the last valve at BSH will take place in 2025 as that is when the right side will be drained, allowing access.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



ELECTROMECHANICAL RELAY REPLACEMENTS

PHASE 2

PROJECT #: 610333
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2027
TOTAL PROJECT COST: \$14,544,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 14,544	\$ 3,154	\$ 2,617	\$ 1,588	\$ 1,833	\$ 1,842	\$ 1,740	\$ 1,770	\$ -

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

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

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



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

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

ENVIRONMENTAL IMPACT: No impacts are anticipated.

ELEVATOR SYSTEM REPLACEMENTS

PHASE 2

PROJECT #: 610512
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2018
COMPLETION DATE: 1st Quarter 2024
TOTAL PROJECT COST: \$8,476,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 8,476	\$ 2,280	\$ 3,216	\$ 2,820	\$ 160	\$ -	\$ -	\$ -	\$ -

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

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

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

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

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



ELEVATOR SYSTEM REPLACEMENTS

PHASE 3

PROJECT #: 610181
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2023
COMPLETION DATE: 4th Quarter 2024
TOTAL PROJECT COST: \$4,000,000

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

	Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$	4,000	\$ -	\$ -	\$ 765	\$ 3,235	\$ -	\$ -	\$ -	\$ -

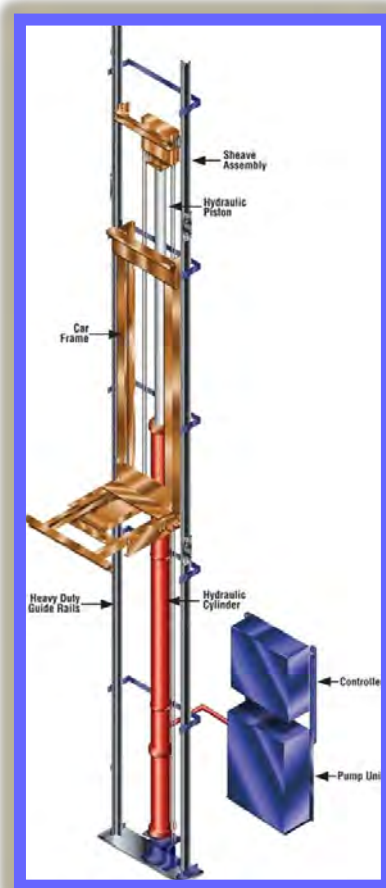
DESCRIPTION: A priority list of 15 elevators was previously established and the top five elevators were upgraded between 2014 and 2016. This phase addresses the three Hydraulic elevators at CAP headquarters, Black Mountain & Snyder Hill as existing elevators were installed 20 to 30 year ago. Installation began in early 2020, at Mark Wilmer Pumping Plant. The underlining maintenance concerns on the hydraulic elevators are age of equipment, controls, and drive systems being obsolete. Spare parts are also no longer available. CAP currently has in place a state elevator maintenance contract for general maintenance; however, this contract is limited to readily available parts, and does not include major retrofitting or upgrading of the elevator system.

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

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

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

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



FIRE HYDRANT FEEDER VALVES AT HEADQUARTERS

PROJECT #: 610183
FUNDING SOURCE: "Big R"

START DATE: 3rd Quarter 2021
COMPLETION DATE: 4th Quarter 2023
TOTAL PROJECT COST: \$1,272,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,272	\$ 81	\$ 180	\$ 1,011	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

There are 43 buried gate valves and 2 above-ground gate valves (sizes 4", 6", and 8"), that control and isolate the flow of water to the fire hydrants, as well as building sprinkler systems at CAP headquarters. Of the 43 valves, there are 17 that do not close at all, close completely or are leaking. Many, if not all, of these valves are from the original construction some 35 years ago. In the event of an emergency or a corrective work order to replace a fire hydrant or riser valve, water isolation is not currently possible with valves frozen open. There is also the possibility of a valve freezing in the closed position, which would leave an area without fire protection. If a fire hydrant is hit, local isolation would not be possible and a valve further upstream would then have to be closed, which increases the area without fire protection. There are currently 4 fire hydrants that leak, where corrective maintenance cannot be completed due to frozen valves not allowing for hydrant isolation.

Replacement of 45 gate valves, as well as adding a post indicator to those valves throughout the landscaped areas. It is recommended to excavate and examine three frozen gate valve during design to assess cause of failure.

JUSTIFICATION:

Safety and equipment reliability are high CAP priorities.

OPERATING IMPACT:

No impacts are anticipated.

SOCIAL IMPACT:

No impacts are anticipated.

ENVIRONMENTAL IMPACT:

The existing concrete pipe is listed as asbestos concrete pipe. The contractor will need to incorporate safe and environmentally friendly methods of reducing hazards associated with asbestos containing materials and proper methods of disposal for any demolished asbestos containing material piping. It is currently assumed that all of the concrete pipe is asbestos concrete. During the pilot phase, CAP staff will test the pipe to confirm Asbestos Containing Material (ACM) is present. This being the case, the project will proceed as planned with ACM abatement methods for both the pilot phase and the full scale project.



FIRE PROTECTION CO₂ MODIFICATION AT WADDELL PUMP / GENERATION PLANT

PROJECT #: 610510
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2018
COMPLETION DATE: 1st Quarter 2022
TOTAL PROJECT COST: \$1,856,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,856	\$ 1,837	\$ 19	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The four pump / generator units have been protected by high-pressure CO₂ fire suppression systems, which now consist of multiple nonfunctioning or obsolete components. The current system does not comply with National Fire Protection Association NFPA-12 standards. This project replaces all mechanical and electrical components of the existing system. Carbon dioxide cylinders will be replaced with nitrogen and water tanks. A network gateway/annunciator panel and ONYX workstation will be installed so the system communicates and is monitored by the ONYX master station at CAP Headquarters.

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

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

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

ENVIRONMENTAL IMPACT: No impacts are anticipated.



FIRE PROTECTION AT SAN XAVIER, TWIN PEAKS, SANDARIO, BRAWLEY, TUCSON FIELD OFFICE PHASE 2

PROJECT #: 610182
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2022
COMPLETION DATE: 2nd Quarter 2025
TOTAL PROJECT COST: \$11,321,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 11,321	\$ -	\$ 930	\$ 4,514	\$ 4,343	\$ 1,534	\$ -	\$ -	\$ -

DESCRIPTION:

CAP's South Pumping plants, San Xavier (SNX), Brawley (BRW), Twin Peaks (TWP), Sandario (SAN), and CAP's Tucson Field Office (TFO) all have equipment maintenance issues that will require replacement of the current equipment. The current fire protection systems in these four Pumping Plants are primarily lacking under the top priority of LIFE SAFETY. The systems are lacking in detector, notification device, and overall fire alarm equipment to properly detect and extinguish a fire. The impact of leaving the current systems in place could be potential life safety issues, long term disruption of water deliveries and loss of major equipment. The current fire protection systems do not meet multiple NFPA codes.

The project scope includes replacing all plant fire protection systems, per the currently adopted Codes and Standards, and the Performance Based Design (PBD) at SNX and BRW. These upgrades would replace the current fire alarm, fire sprinkler, suppression systems, stairwell pressurization and all ancillary systems such as the HVAC dampers and elevator recall systems. The project would begin with a design phase at all four plants, including the PBD design at SAN and TWP. The upgrades at TFO would not be as extensive as the plant locations, but would include replacing the current fire alarm and all ancillary systems such as the HVAC dampers. The goal at TFO would be to tie the fire alarm system into the Notifier Onyx Works network, and validate the fire sprinkler system functionality. The entire fire alarm system will be designed to meet the requirements of the currently adopted version of NFPA 72 - National Fire Alarm and Signaling Code.

JUSTIFICATION:

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

OPERATING IMPACT:

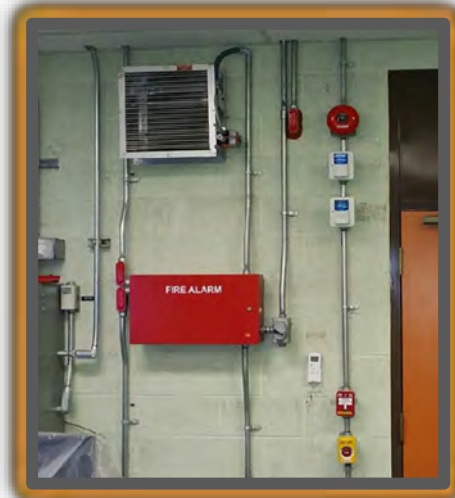
This project will have minimal impacts to water operations. Short duration pump unit outages will be coordinated as each system is installed.

SOCIAL IMPACT:

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

ENVIRONMENTAL IMPACT:

Project will impact CAP Sustainability program and will include sustainable materials Specification 01 9900, and reduce waste of demolished building materials by recycling existing piping wire and conduits.



FIRE PROTECTION SYSTEM UPGRADES AT MARK WILMER PUMPING PLANT

PROJECT #: 610332
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2020
COMPLETION DATE: 3rd Quarter 2023
TOTAL PROJECT COST: \$7,962,000

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

	Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$	7,962	\$ 956	\$ 4,314	\$ 2,692	\$ -	\$ -	\$ -	\$ -	\$ -

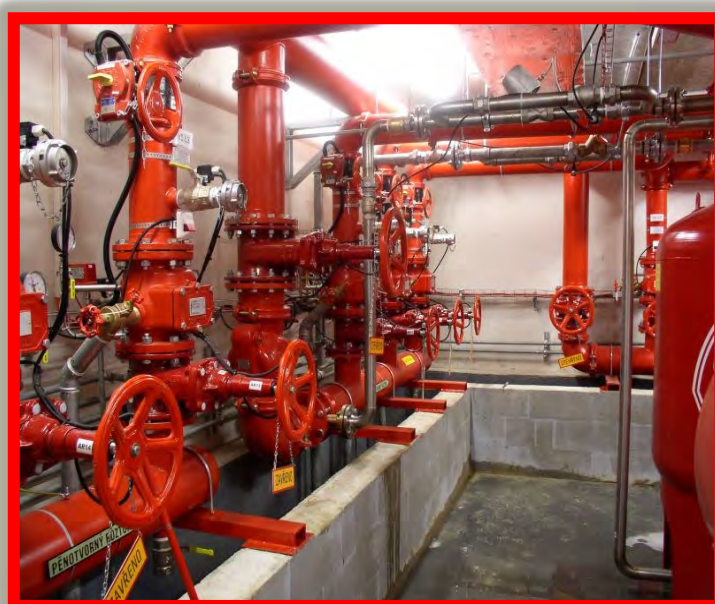
DESCRIPTION: Multiple fire protection systems at Mark Wilmer Pumping Plant are either obsolete, failing or inappropriate for the protection area. A previous system upgrade occurred in 1999-2000, which installed new fire alarm panels and extended sprinkler coverage area, among other features. Personnel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

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

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

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

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



FLOWMETER REPLACEMENTS AT TURNOUTS

PROJECT #: 610269
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2020
COMPLETION DATE: 2nd Quarter 2022
TOTAL PROJECT COST: \$1,690,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,690	\$ 1,586	\$ 104	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

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

JUSTIFICATION: ADS Environmental Services, the manufacturer of the obsolescing Accusonic meters, continues to manufacture the transducers, which electronically measure water flow rates, but has discontinued parts replacement and support for the 7510/7510+ PLC. Failure of a flowmeter would take the site offline for a period of months to replace it with a newer meter and require additional time to design, order and install a PLC interface.

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

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



HVAC REPLACEMENT HEADQUARTERS BUILDING 2

PROJECT #: 610184
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2022
COMPLETION DATE: 1st Quarter 2024
TOTAL PROJECT COST: \$6,530,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 6,530	\$ -	\$ 644	\$ 4,853	\$ 1,033	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The existing evaporative system requires a high level of maintenance, high water usage, and low human comfort during the warmer/ humid months of the year. It has also been noted that there are material storage issues related to the high humidity climate that the evaporative coolers pose.

The Machine Shop, Auto Maintenance Shop, Shipping and Receiving Warehouse, and HDQ2 Central Quad will all be upgraded to modern energy efficient HVAC systems. The new HVAC system will include automated Logic DDC Facility Management System (FMS) which will control and monitor the mechanical equipment. Remote access will be provided to ease the burden on maintenance call outs. The demo and new unit installation will be coordinated so as to minimize disruption to employees working on campus.

JUSTIFICATION: There are periods during summer time when the evaporative coolers are ineffective at producing a comfortable working environment in the CAP Auto Shop, Warehouse, and Machine Shop. Summer 2020 set several heat records with 145 days above 100°F, 53 days above 110°F, and 14 days above 115°F. Due to the possibility of extreme heat in current and future years, there is a risk to Life Safety of CAP employees, in addition to risk of damage to CAP equipment stored in these areas. Replacing the evaporative cooling systems on the north, south and west quadrants with packaged DX units should result in less unplanned maintenance work. The systems should provide superior environmental control compared to the original EC systems, which should help extend the life of spare parts in the warehouse, and help control corrosion issues in the machine shop and auto shop.

OPERATING IMPACT: The demo and new unit installation will be coordinated so as to minimize disruption to employees working on campus.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: The new system will eliminate any needs for R-22 refrigerant. All new systems will only use R-410A refrigerant.



HVAC REPLACEMENT AT MARK WILMER

PUMPING PLANT

PROJECT #: 610362
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2020
COMPLETION DATE: 1st Quarter 2023
TOTAL PROJECT COST: \$5,117,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 5,117	\$ 3,413	\$ 1,685	\$ 19	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

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

JUSTIFICATION:

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



OPERATING IMPACT:

The costs are often not readily quantifiable as the impact is that staff are freed up to perform other duties.

SOCIAL IMPACT:

No impacts are anticipated.

ENVIRONMENTAL IMPACT:

Refrigerant R-410A, which contains only fluorine, does not contribute to ozone depletion, and its use is becoming more widespread as ozone-depleting refrigerants like R-22 are phased out. Use of R-410A refrigerant is recommended.

ISOLATION VALVES AT BLACK MOUNTAIN & SNYDER HILL (PILOT)

PROJECT #: 610330
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2023
TOTAL PROJECT COST: \$2,066,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 2,066	\$ 237	\$ 101	\$ 1,728	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

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



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

JUSTIFICATION:

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

OPERATING IMPACT:

Reduced cost through lower maintenance requirements.

SOCIAL IMPACT:

No impacts are anticipated.

ENVIRONMENTAL IMPACT:

No impacts are anticipated.

MACHINE SHOP OVERHEAD CRANE IMPROVEMENTS

PROJECT #: 610395
FUNDING SOURCE: "Big R"

START DATE: 2nd Quarter 2021
COMPLETION DATE: 1st Quarter 2022
TOTAL PROJECT COST: \$294,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 294	\$ 265	\$ 29	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

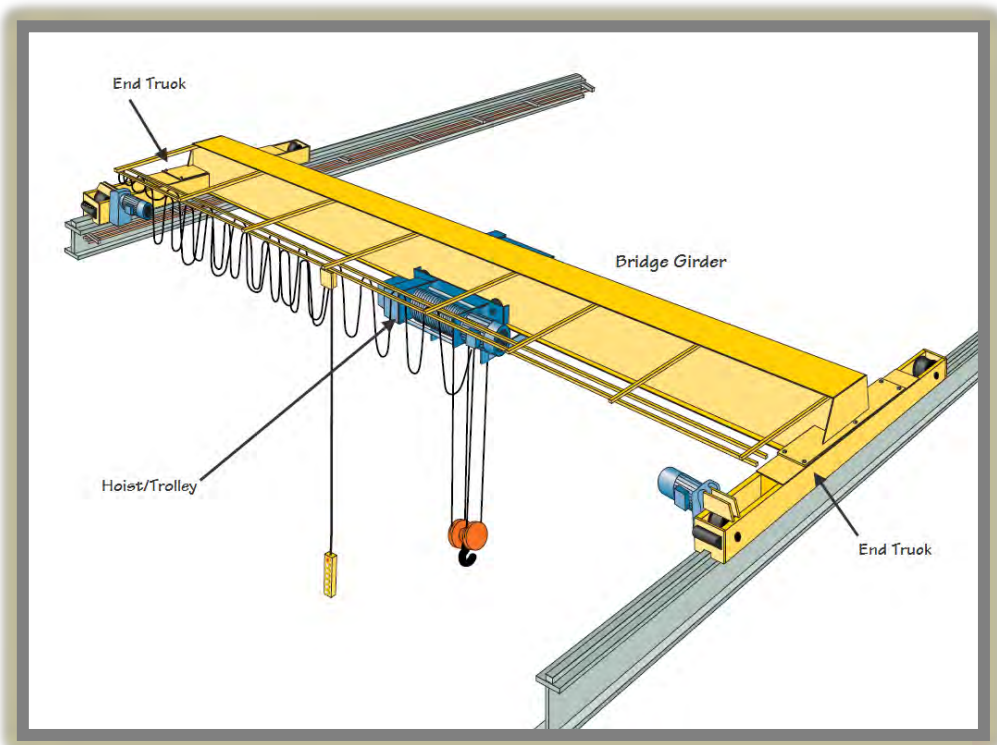
DESCRIPTION: The scope of this project includes a new trolley added to the existing bridge, new variable frequency drives integrated to the existing programmable logic controller, new LED lighting, and a replacement wire rope on the existing 50-ton Shaw.

JUSTIFICATION: CAP is seeking to resolve the following 50/15-ton overhead crane performance issues. The wire rope is damaged and in need of replacement. The ceiling lights are too bright to observe the wire rope on the drums. Variable Frequency Drives are required because the machine shop personnel have trouble placing parts into shop machines from abrupt start-stop movements of the crane. An additional trolley is required for maneuverability during large equipment handling (i.e. radial gates) which is difficult with main and auxiliary hoists on one trolley.

OPERATING IMPACT: Safety, longevity, reliability of assets, and efficiency.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



MOTOER EXCITERS & CONTROL UNIT REPLACEMENTS AT WEST PLANTS

PROJECT #: 610458
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2017
COMPLETION DATE: 1st Quarter 2023
TOTAL PROJECT COST: \$14,760,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 14,760	\$ 9,727	\$ 4,363	\$ 670	\$ -	\$ -	\$ -	\$ -	\$ -

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

JUSTIFICATION: Exciters are at end of service life.

OPERATING IMPACT: No impacts are anticipated.

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

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



MOTOR EXCITERS AT TWIN PEAKS, SANDARIO, SNYDER HILL & BLACK MOUNTAIN

PROJECT #: 610208
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2022
COMPLETION DATE: 1st Quarter 2024
TOTAL PROJECT COST: \$1,421,000

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

	Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$	1,421	\$ -	\$ 569	\$ 735	\$ 117	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The 26 unit pump synchronous motor exciter packages at Twin Peaks (TWP)(6), Sandario (SAN) (6), Snyder Hill (SNY)(9), Black Mountain (BLK)(5) are outdated, and sourcing replacement parts for the individual components is nearly impossible. The current state of the motor exciters is increasingly unreliable. At TWP/SAN, the discharge resistors are located internally on the motors; in order to replace a failed OEM resistor, the rotor needs to be removed from the motor which requires extensive work. On the SNY/BLK motors, there have been several failures which have required a costly rewind of the OEM spool type resistors. Additionally, all motors have established a trend of excitation trips. Numerous times, an actual problem is not found. This results in unnecessary expenditure of maintenance troubleshooting man-hours, and impacts capability to move water through these plants.

The project scope and description consists of replacing, in kind, the current exciter packages with a brush-less package. Similar to the work performed at Brawley (BRW) and San Xavier (SNX) in 2012, the existing OEM archaic brushless exciters will be replaced with new state-of-the-art, rotating packages, which utilize new control modules and power block SCRs, Diodes and Rectifiers, bringing consistency across each plant. The team intends to solicit bids for the equipment and procure the excitation packages in time for the Q1 2022 annual PM installation window at TWP and SAN, and Q1 2023 for SNY and BLK.

JUSTIFICATION: The 26 unit pump synchronous motor exciter packages are outdated and sourcing replacement parts for the individual components is nearly impossible. The current state of the motor exciters is increasingly unreliable.

OPERATING IMPACT: The excitation packages will be replaced during the scheduled annual excitation Preventative Maintenance outages, thus no additional unit outages are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: All parts to be shipped to Environmental, Health and Safety to be recycled.



NETWORK REFRESH 2022 / 2023

PROJECT #: 610391/ 610392
FUNDING SOURCE: "Big R"

START DATE: 2nd Quarter 2022
COMPLETION DATE: 2nd Quarter 2023
TOTAL PROJECT COST: \$325,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 325	\$ -	\$ 125	\$ 200	\$ -	\$ -	\$ -	\$ -	\$ -

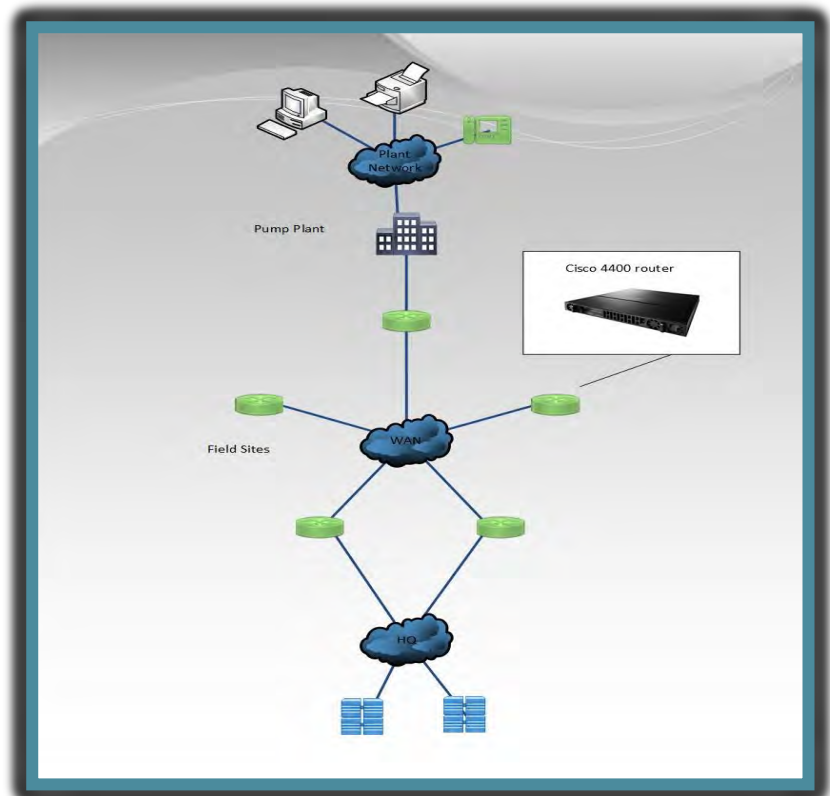
DESCRIPTION: As technology moves more into a hybrid environment that merges on-premise solutions and the Cloud, additional network equipment and associated software purchases are required to meet new project requirements without sacrificing CAP uptime standards.

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

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

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

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



POTABLE WATER SKID REPLACEMENTS

PROJECT #: 610328
FUNDING SOURCE: "Big R"

START DATE: 3rd Quarter 2020
COMPLETION DATE: 2nd Quarter 2023
TOTAL PROJECT COST: \$1,956,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,956	\$ 13	\$ 824	\$ 1,119	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

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

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

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

JUSTIFICATION:

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

OPERATING IMPACT:

No impacts are anticipated.

SOCIAL IMPACT:

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

ENVIRONMENTAL IMPACT:

No impacts are anticipated.



POTABLE WATER AT PINAL FIELD OFFICE

PROJECT #: 610209
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2022
COMPLETION DATE: 2nd Quarter 2023
TOTAL PROJECT COST: \$461,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 461	\$ -	\$ 176	\$ 285	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The project scope includes installation of a 2500 gallon potable water storage tank, in addition to a shade structure, booster pump, chlorine injection system, and re-piping of the downstream pipes to separate the potable water use areas from the non-potable use areas, which will continue to utilize a well water line.

JUSTIFICATION: The water source currently being used at Pinal Field Office (PFO) is from a nearby well which is shared by local business owners. When tested, this water has registered high in both arsenic and fluoride concentrations. To meet OSHA 1910.141(b)(2)(iii), it is required that all indoor uses with the possibility of coming in contact with the individual be treated to EPA potable water standards. To meet this standard would require a treatment or other solution that would provide potable drinking water for indoor use. If the existing well water were to be used, it would require reducing the amount of arsenic, measured at 400+ ug/L, to below 10 ug/L, to meet the EPA requirement for potable water.

CAP hired a consultant, Hazen and Sawyer, to complete a feasibility study of potential treatment options for this application. When analyzing monthly costs, including labor, over the life cycle of the equipment, it was determined that a water delivery system would be the most cost beneficial alternative.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT:

The team will seek ways that mitigate the environmental impact the project has on the environment and the surrounding area. It is required to provide a method of preventing chlorine chemical leakage to the nearby soil below. This may be done with a building perimeter curb; however, proper ventilation is required to prevent buildup of hazardous fumes in a situation of a leaking container. This item will need to be further discussed during the project design phase. It is required to super chlorinate the system and dispose of super chlorinated water prior to the commissioning of tank.



POTABLE WATER SYSTEM UPGRADE AT SANDARIO PUMPING PLANT

PROJECT #: 610434
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2019
COMPLETION DATE: 1st Quarter 2022
TOTAL PROJECT COST: \$775,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 775	\$ 458	\$ 317	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

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

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

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

JUSTIFICATION:

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

OPERATING IMPACT:

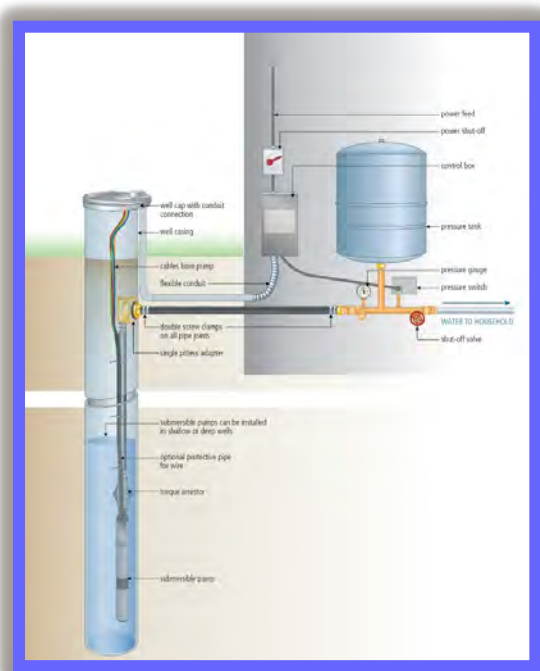
No impacts are anticipated.

SOCIAL IMPACT:

Improved work environment for CAP employees, visitors and contractors.

ENVIRONMENTAL IMPACT:

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



PROGRAMMABLE LOGIC CONTROLLER (PLC) REPLACEMENTS AT WADDELL

PROJECT #: 610329
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2020
COMPLETION DATE: 4th Quarter 2024
TOTAL PROJECT COST: \$5,403,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 5,403	\$ 1,525	\$ 1,836	\$ 1,642	\$ 400	\$ -	\$ -	\$ -	\$ -

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

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

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

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



ROOF REPLACEMENT AT BLACK MOUNTAIN & SNYDER HILL PUMPING PLANTS

PROJECT #: 610257
FUNDING SOURCE: "Big R"

START DATE: 2nd Quarter 2023
COMPLETION DATE: 2nd Quarter 2024
TOTAL PROJECT COST: \$1,034,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,034	\$ -	\$ -	\$ 132	\$ 902	\$ -	\$ -	\$ -	\$ -

DESCRIPTION:

Black Mountain (BLK) and Snyder Hill's (SNY) current condition of the roof coatings have been confirmed by the Protective Coatings Group and during recent inspections by roofing contractors. The polyurethane coating has been repaired numerous times over the past 10-15 years, and has reached the limits of possible repair. The roof coatings and foam base are in a degraded state, resulting in roofing material frequently delaminating and falling off the roof. In addition, the existing slope of the foam base is inadequate and is not properly tied into the roof drain system.

The scope of this project will also address the absence of a rooftop fall protection system, which currently poses a significant fall hazard during maintenance. Rooftop fall hazards are evident at BLK and SNY Pumping Plants, near the rooftop edges and roof access hatches. Permanent safety improvements are needed at both plants to put CAWCD in compliance with OSHA fall protection requirements.

Removal and disposal of the existing spray foam roofing down to structural concrete deck throughout the area of both pumping plant structures is required. Installation of the new roofing system, would use a foam adhesive to adhere an engineered tapered iso-board substrate system with crickets leading to drains in the roof deck. A yellow safety perimeter edge warning strip is painted 15 feet from outer roof edge for fall prevention. The new engineered tapered iso-board will re-establish the proper slope to drain, and a new roof coating system will be applied that is warranted for 20 years. Complete removal of the existing system will ensure that a roofing system is obtained that attaches securely to the existing concrete decking and is fully warranted by the product manufacturer and the installation contractor.

JUSTIFICATION:

BLK and SNY's existing roof coatings are in poor condition and are nearing the end of their life cycle. The roof coatings and foam base are in a degraded state resulting in roofing material frequently delaminating and falling off the roof. The continued material degradation will eventually lead to roof leaks and water damage to existing plant systems. Complete replacement of the existing roof system was selected as the best option for correction of these issues.

OPERATING IMPACT:

No impacts are anticipated.

SOCIAL IMPACT:

No impacts are anticipated.

ENVIRONMENTAL IMPACT:

Removal and proper disposal of the existing roofing materials will minimize the continued loss of roofing materials that have been noted to be separating from the roof and blowing around the plant area.



SCADA REPLACEMENT AT CONTROL CENTER

PROJECT #: 610324
FUNDING SOURCE: "Big R"

START DATE: 2nd Quarter 2020
COMPLETION DATE: 2nd Quarter 2026
TOTAL PROJECT COST: \$19,215,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 19,215	\$ 753	\$ 2,142	\$ 4,609	\$ 7,640	\$ 3,986	\$ 85	\$ -	\$ -

DESCRIPTION:

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

Within the 2020/2021 cycle, the project team will complete the planning document and scope statement. Also, the project will select an integrator to help develop standards and perform bench testing at a pumping plant, check structure and turnout. The team will work on the bench testing and standards in 2022. Once the standards and bench testing is complete, the team will proceed with full integration at each site starting in 2023.



JUSTIFICATION:

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

OPERATING IMPACT:

No impacts are anticipated.

SOCIAL IMPACT:

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

ENVIRONMENTAL IMPACT:

No impacts are anticipated.

SUMP PUMP WATER LEVEL CONTROLS AT PUMPING PLANTS

PROJECT #: 610473
FUNDING SOURCE: "Big R"

START DATE: 3rd Quarter 2015
COMPLETION DATE: 1st Quarter 2023
TOTAL PROJECT COST: \$2,030,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 2,030	\$ 772	\$ 1,118	\$ 140	\$ -	\$ -	\$ -	\$ -	\$ -

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

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

JUSTIFICATION: Existing equipment is obsolete.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



SWITCHYARD BUS DUCT REPLACEMENT AT WADDELL PUMPING PLANT

PROJECT #: 610389
FUNDING SOURCE: "Big R"

START DATE: 3rd Quarter 2020
COMPLETION DATE: 1st Quarter 2022
TOTAL PROJECT COST: \$1,913,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 1,913	\$ 1,862	\$ 51	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: The current state of the Waddell Pump / Generating Plant's high-voltage, nonsegregated bus creates a risk to continued reliable plant operation. The original bus design was susceptible due to failure to protect electrical components from the weather elements. The new bus will be sealed, as opposed to the original unsealed bus; otherwise, it will retain the same performance requirements. The vendor for the bus will be selected in a qualification based process, and the installation contracted out via a Job Order Contract.

JUSTIFICATION: Electrical system protection from weather elements at Waddell Pump / Generating Plant requires replacement of the existing duct system.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



SWITCHYARD SECURITY AT DELANEY

PROJECT #: 610263
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2023
COMPLETION DATE: 4th Quarter 2023
TOTAL PROJECT COST: \$618,000

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

Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$ 618	\$ -	\$ -	\$ 618	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION: U.S. Federal Energy Regulation Commission (FERC) mandates that certain key transmission infrastructure assets be hardened with reinforced perimeter security, such as walling, fencing or wiring. This project is to bring the Delany switchyard into compliance to improve the security at the site.

JUSTIFICATION: Safeguarding CAP electricity generation and transmission systems, or participation interests, mitigates risk of compromise or more severe damage. Completing the project brings the switchyard into compliance on this security issue.

OPERATING IMPACT: No impacts are anticipated.

SOCIAL IMPACT: No impacts are anticipated.

ENVIRONMENTAL IMPACT: No impacts are anticipated.



TRANSFORMER REPLACEMENT AT MCCULLOUGH

PROJECT #: 610519
FUNDING SOURCE: "Big R"

START DATE: 1st Quarter 2018
COMPLETION DATE: 3rd Quarter 2023
TOTAL PROJECT COST: \$9,184,000

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

Total		Pre-2022		2022		2023		2024		2025		2026		2027		Balance	
\$	9,184	\$	5,684	\$	1,500	\$	2,000	\$	-	\$	-	\$	-	\$	-	\$	-

DESCRIPTION: Power that serves Mark Wilmer Pumping Plant is provided primarily through a single 400-megavolt ampere (MVA), 500/230-kilovolt (kV) transformer located at the McCullough substation in Nevada. There are three transformers at McCullough, each owned by a different utility. CAP owns the capacity on the Transformer Bank I but has no capacity rights on other transformers or other transmission systems in the area. This sole power source for CAP's intake plant represents a business risk for the Mark Wilmer Pumping Plant.

JUSTIFICATION: Transformer Bank I has been in service for over 40 years and nearing the end of its useful service life.

OPERATING IMPACT: Replacement of the McCullough transformer will reduce the risk of failure and avoid the costs associated with purchasing alternative transmission capacity.

SOCIAL IMPACT: Power supply reliability increases reliability of CAP water operations, benefiting customers.

ENVIRONMENTAL IMPACT: An environmental assessment will be performed prior to construction to ensure compliance with federal and state laws.



WINDOWS SERVER REFRESH 2022 / 2023

PROJECT #: 610393 / 610394
FUNDING SOURCE: "Big R"

START DATE: 2nd Quarter 2022
COMPLETION DATE: 2nd Quarter 2023
TOTAL PROJECT COST: \$350,000

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

	Total	Pre-2022	2022	2023	2024	2025	2026	2027	Balance
\$	350	\$ -	\$ 150	\$ 200	\$ -	\$ -	\$ -	\$ -	\$ -

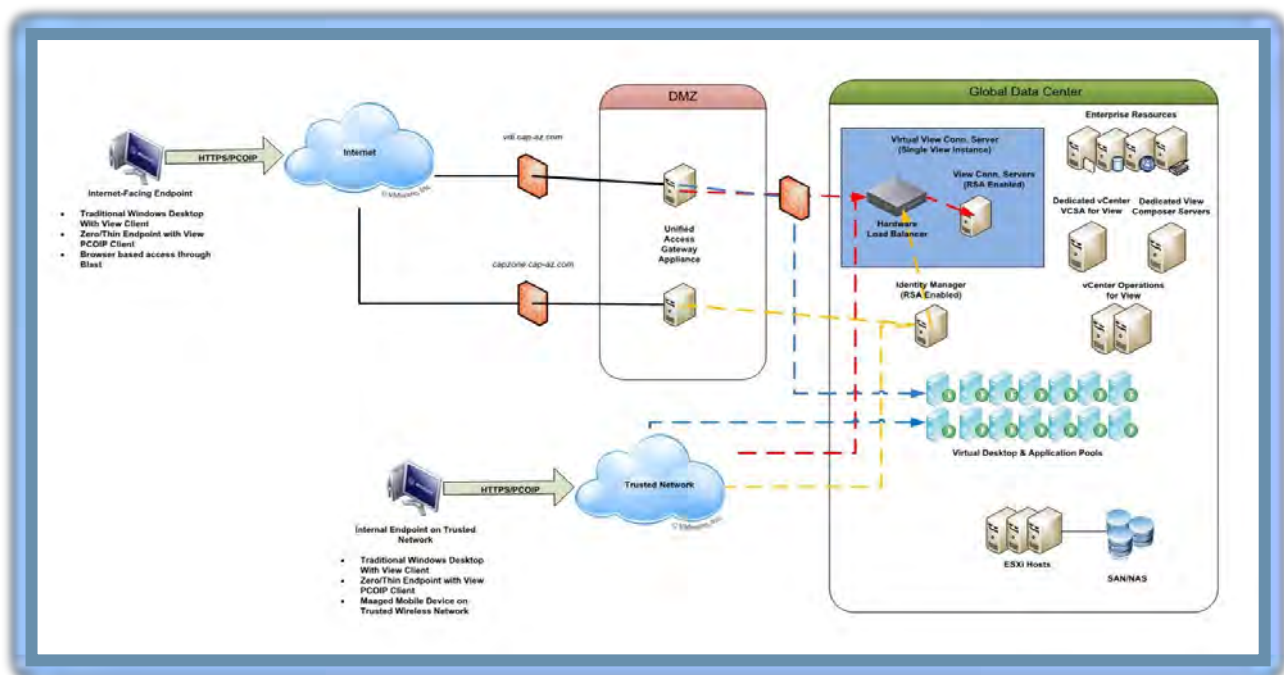
DESCRIPTION: As technology moves more into a hybrid environment that merges on-premise solutions with the Cloud, Microsoft Windows® server equipment and associated software purchases are required to meet new project requirements without sacrificing CAP uptime standards.

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

OPERATING IMPACT: No impacts are anticipated.

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

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





Arizona Desert—Superstition Mountains

CAP - Table of Organization



CAP -- MAKING A DIFFERENCE

BY: CRYSTAL THOMPSON-COMMUNICATION MANAGER

CAP has a long history of supporting volunteerism and community outreach - 25 years to be exact. In 2021, CAP celebrated the 25th year of the President's Award for Community Service, which assists local charities and recognizes our employees who volunteer their time and expertise to local nonprofits.



For the second year in a row, the President's Awards were presented virtually. Funds budgeted for the typical in-person event were redirected into enhanced community donations. And, while CAP employees would typically be volunteering for various efforts in the community, recent efforts have been confined to virtual "drives" - toys for Andrea's Closet and food for St. Vincent, as well as remote opportunities to donate blood to Vitalant.

This year's recognized charities included the charities CAP, as an organization, supports throughout the year:

- Burrowing Owls
- CAST for Kids
- Desert Mission Food Bank
- Free Arts of Arizona
- Southwest Wildlife
- Vincent de Paul
- Zoo Walk for Autism



In addition, CAP donated to some of the individual charities our employees support:

- 2GetherWeLive
- Andrea's Closet
- Arizona Flames



- Be Kind People Project
- Boy Scouts Troup 316
- Choices Pregnancy Center of Greater Phoenix, Inc.
- DUET
- Friends of the Surprise Library
- Herberger Theater
- Hopekids Arizona
- Hospice of the Valley
- Liberty Wildlife
- Phoenix Children's Hospital
- Rusty's Angels Sanctuary
- Surrendered Souls
- Vitalant (United Blood Services)

the **be**
kind
people
project™



Liberty Wildlife



HopeKids®
Restoring Hope. Transforming Lives.



vitalant 

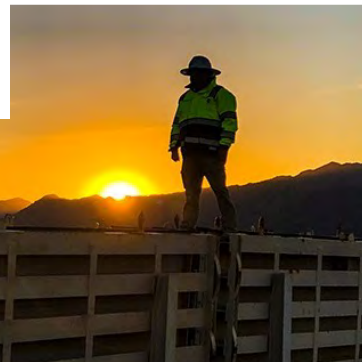
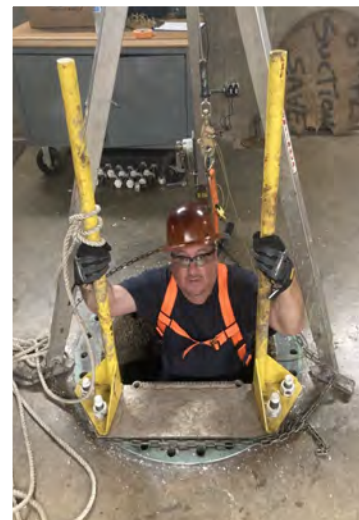
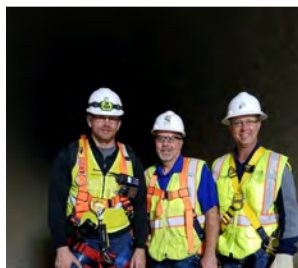
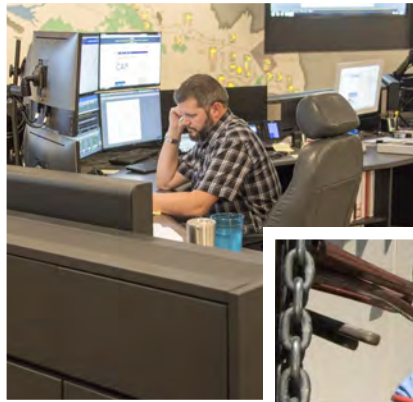
CAP salutes these charities for the work they do every day and the CAP employees who dedicate their spare time to contribute to their success.

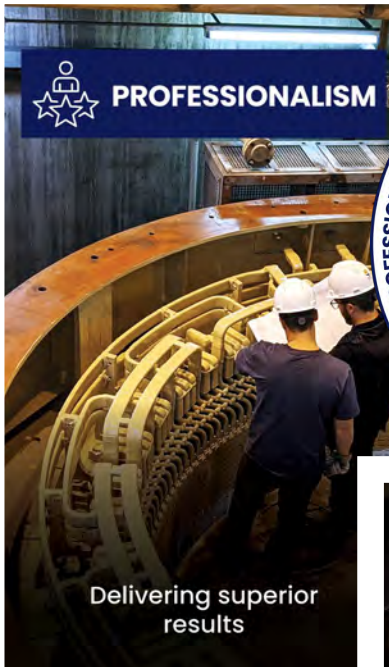


OUR BELIEFS

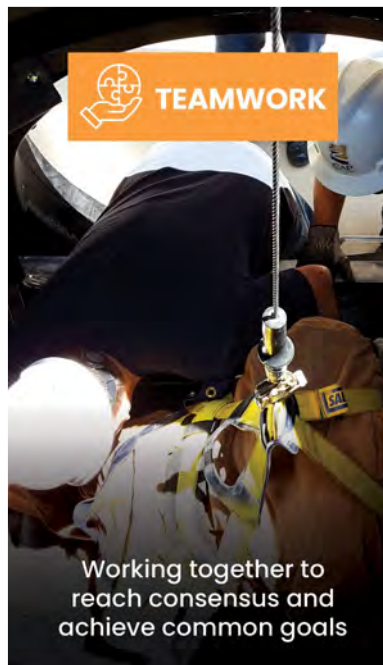
Central Arizona Project employees work with pride to create a safe, supportive and friendly workplace. We believe in:

- 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

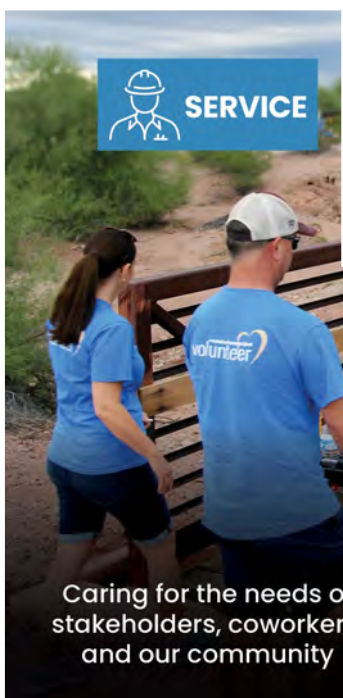




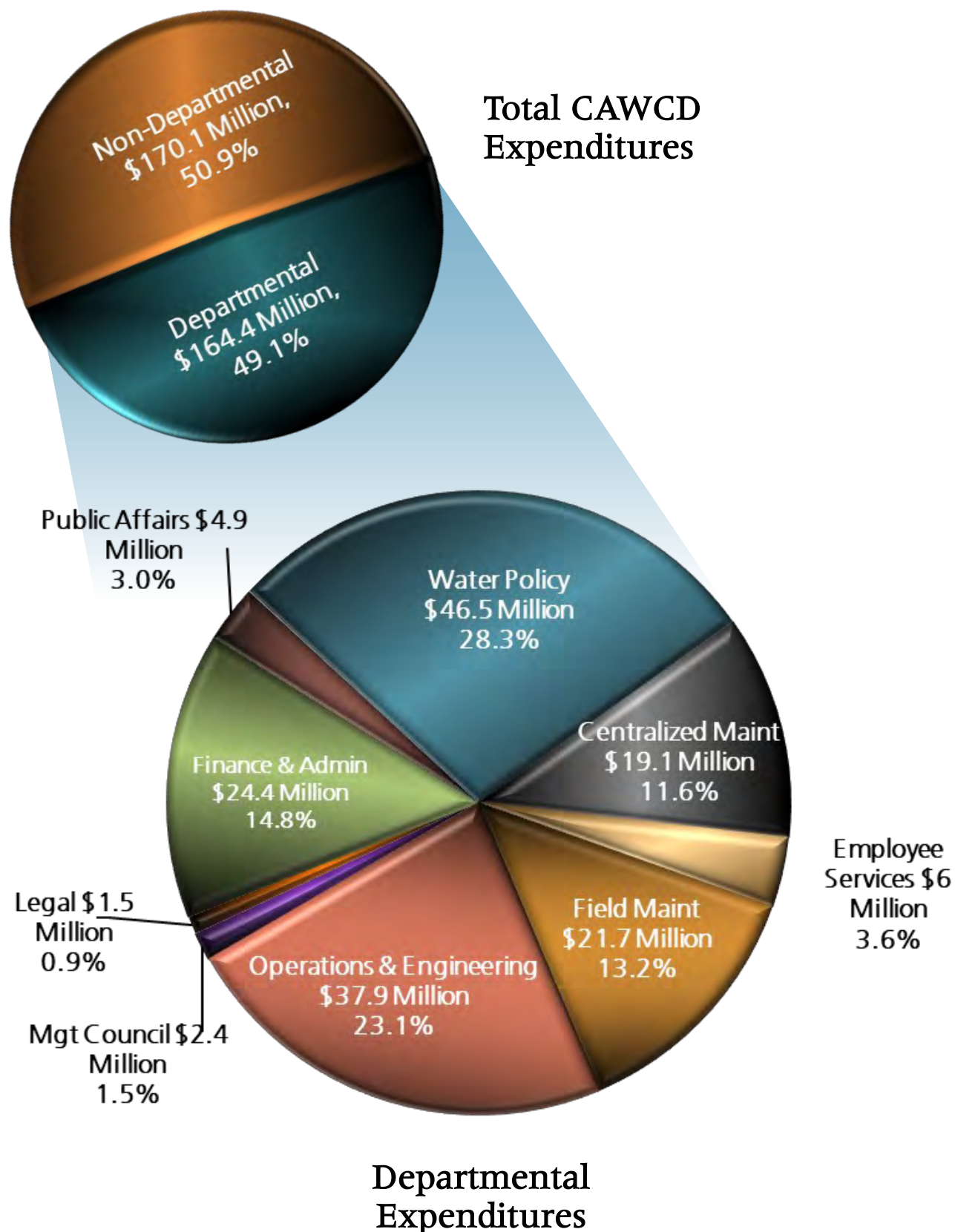
CAP
CENTRAL ARIZONA PROJECT



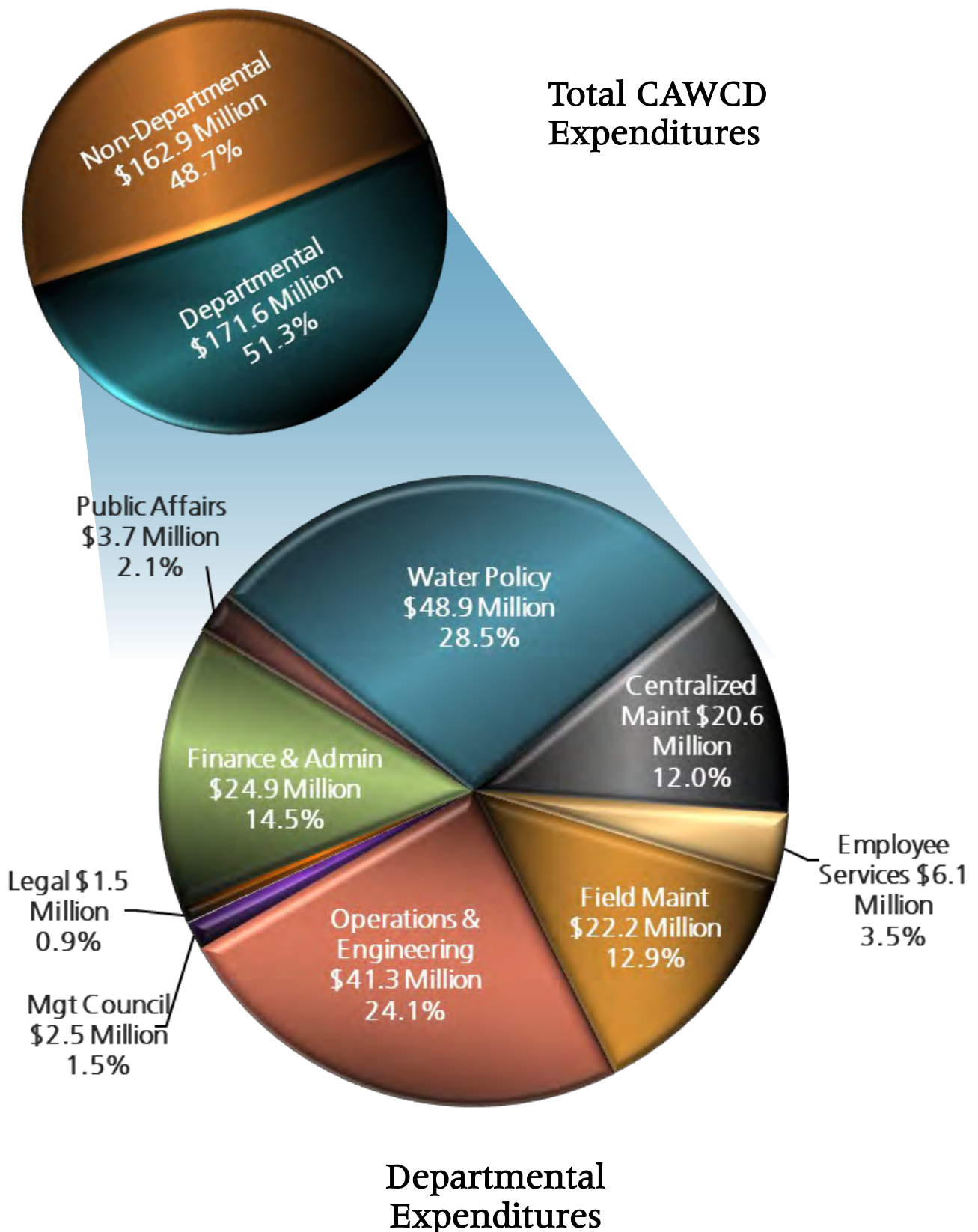
CAP
CENTRAL ARIZONA PROJECT



2022 Total Expenditures



2023 Total Expenditures



Summary of Positions

Average Full-Time Equivalent (FTE)

	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
General Manager					
Management Council	12.2	12.0	11.8	12.0	12.0
Legal Services	5.0	5.0	5.0	5.0	5.0
Public Affairs	14.2	16.1	16.6	17.0	17.0
AGM - Finance & Administration					
Finance & Administration					
Enterprise Risk & Records Management	7.6	6.3	5.1	6.0	6.0
Finance & Accounting	18.7	18.8	19.0	19.0	19.0
Supply Chain & Facilities	26.5	26.0	27.0	27.0	27.0
Information Technology	32.4	32.1	33.5	36.0	36.0
Total Finance & Administration	85.2	83.2	84.6	88.0	88.0
Employee Services					
Centralized Learning & Development	5.3	5.2	5.7	6.0	6.0
Environmental Health & Safety	10.5	9.4	9.8	11.0	11.0
Human Resources	7.0	6.0	6.0	7.5	7.5
Protective Services	9.2	9.0	9.0	9.0	9.0
Total Employee Services	32.0	29.6	30.5	33.5	33.5
AGM - Operations & Maintenance					
Centralized Maintenance & Reliability					
Centralized Maintenance	69.0	70.2	68.6	72.0	72.0
Maintenance Control	39.1	38.1	38.8	42.0	42.0
Total Centralized Maintenance & Reliability	108.1	108.3	107.4	114.0	114.0
Field Maintenance					
Maintenance South	44.4	43.4	45.3	46.0	46.0
Maintenance West	43.6	44.1	44.6	45.0	45.0
Electrical Safety Program	3.3	-	-	-	-
Operational Technology	34.1	34.6	36.9	38.0	38.0
Total Field Maintenance	125.4	122.1	126.8	129.0	129.0
Operations & Engineering					
Engineering	61.8	59.0	61.7	63.0	63.0
Power Program	2.4	3.0	2.5	2.0	2.0
Water Operations	20.4	21.3	22.5	24.0	24.0
Total Operations & Engineering	84.6	83.3	86.7	89.0	89.0
AGM - Water Policy					
Water Policy					
CAGRD*	8.3	8.8	9.0	9.0	9.0
Colorado River Programs	4.0	4.0	3.8	4.0	4.0
Resource Planning & Analysis	3.4	4.0	4.0	4.0	4.0
Total Water Policy	15.7	16.8	16.8	17.0	17.0
Total FTE	482.4	476.4	486.2	504.5	504.5
Vacancy/Salary Savings Equivalent	-	-	(6.3)	(15.0)	(15.0)
Net FTE	482.4	476.4	479.9	489.5	489.5

*CAGRD Fund FTE

Explanation of Changes in Positions

Average Full-Time Equivalent (FTE)

(All FTE are General Fund except as noted)

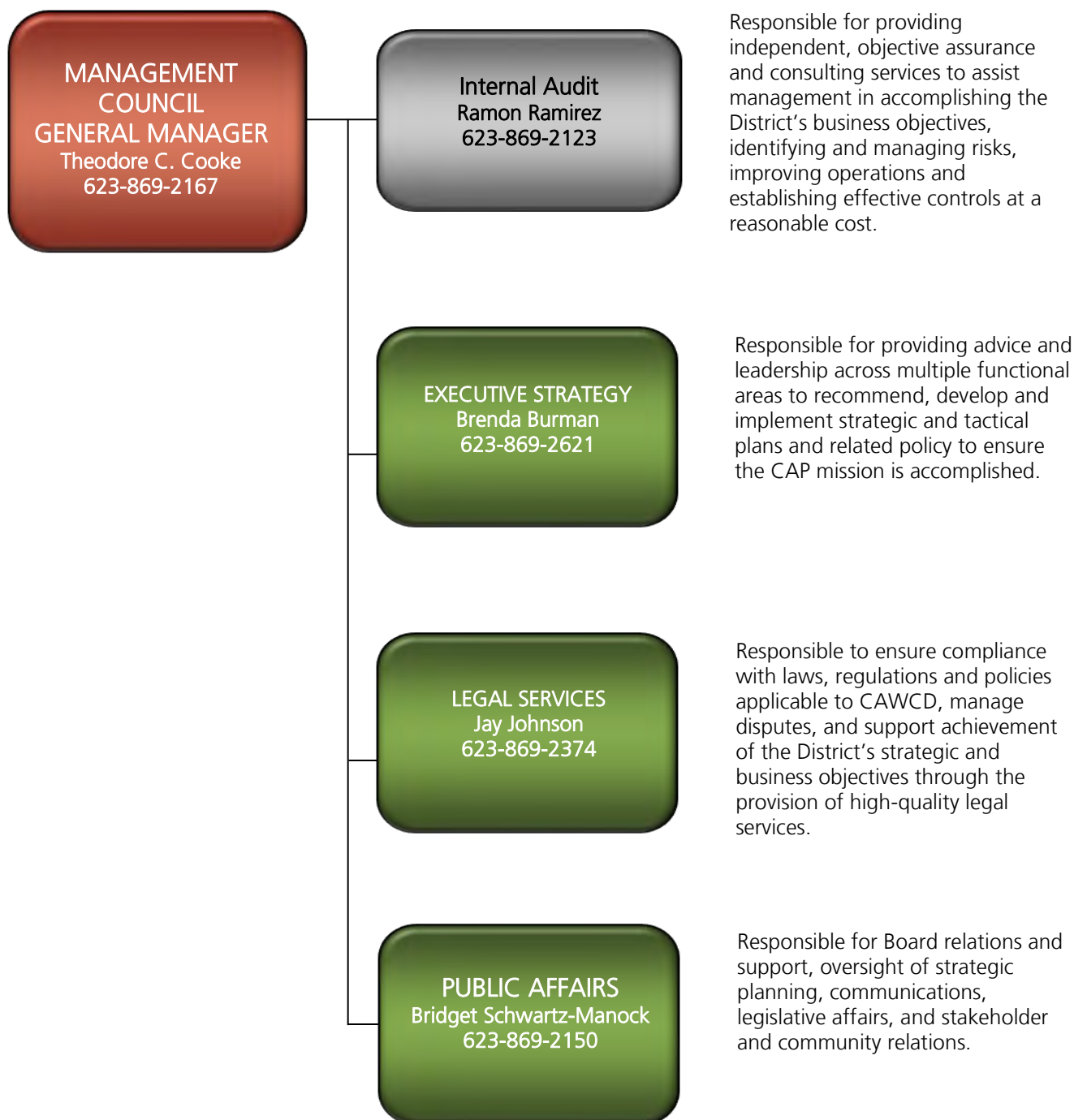
	2021 Projection	2022 Budget	2023 Budget	2022 vs 2021	2023 vs 2022	Notes
General Manager						
Management Council	11.8	12.0	12.0	0.2	-	Filling vacant position (Director of Ops & Engineering)
Legal Services	5.0	5.0	5.0	-	-	
Public Affairs	16.6	17.0	17.0	0.4	-	Filling vacant positions (Multimedia Specialist & Analyst)
AGM - Finance & Administration						
Finance & Administration						
Enterprise Risk & Records Management	5.1	6.0	6.0	0.9	-	Filling vacant positions (Manager & Analyst)
Finance & Accounting	19.0	19.0	19.0	-	-	
Supply Chain & Facilities	27.0	27.0	27.0	-	-	
Information Technology	33.5	36.0	36.0	2.5	-	Filling vacant positions (Manager, Supervisor & Software Engineer)
Total Finance & Administration	84.6	88.0	88.0	3.4	-	
Employee Services						
Centralized Learning & Development	5.7	6.0	6.0	0.3	-	Filling vacant position (Learning Program Manager)
Environmental Health & Safety	9.8	11.0	11.0	1.2	-	Filling vacant positions (Wellness Prgm Admin & Safety Specialist)
Human Resources	6.0	7.5	7.5	1.5	-	Internship program was cancelled in 2021
Protective Services	9.0	9.0	9.0	-	-	
Total Employee Services	30.5	33.5	33.5	3.0	-	
AGM - Operations & Maintenance						
Centralized Maintenance & Reliability						
Centralized Maintenance	68.6	72.0	72.0	3.4	-	Filling vacant positions (Apprentices & Mechanic Millwrights)
Maintenance Control	38.8	42.0	42.0	3.2	-	Filling vacant positions (Senior Maint Planners & BI Data Analyst)
Total Centralized Maintenance & Reliability	107.4	114.0	114.0	6.6	-	
Field Maintenance						
Maintenance South	45.3	46.0	46.0	0.7	-	Filling vacant positions (Electricians)
Maintenance West	44.6	45.0	45.0	0.4	-	Filling vacant positions (Mechanic Millwrights & Electricians)
Electrical Safety Program	-	-	-	-	-	
Operational Technology	36.9	38.0	38.0	1.1	-	Filling vacant positions (Electricians & IT Functional System)
Total Field Maintenance	126.8	129.0	129.0	2.2	-	
Operations & Engineering						
Engineering	61.7	63.0	63.0	1.3	-	Filling vacant positions (Project Managers & Engineers)
Power Program	2.5	2.0	2.0	(0.5)	-	Retirement (Senior Power Analyst)
Water Operations	22.5	24.0	24.0	1.5	-	Filling vacant positions (Dispatcher Trainee & Water Svstem Analvst)
Total Operations & Engineering	86.7	89.0	89.0	2.3	-	
AGM - Water Policy						
Water Policy						
CAGR *D *	9.0	9.0	9.0	-	-	
Colorado River Programs	3.8	4.0	4.0	0.2	-	Filling vacant position (Senior Policy Analyst)
Resource Planning & Analysis	4.0	4.0	4.0	-	-	
Total Water Policy	16.8	17.0	17.0	0.2	-	
Total FTE	486.2	504.5	504.5	18.3	-	
Vacancy/Salary Savings Equivalent	(6.3)	(15.0)	(15.0)	(8.7)	-	
Net FTE	479.9	489.5	489.5	9.6	-	

* CAGR Fund FTE



General Manager - Management Council

Mission: Provides leadership and direction in managing the business of the Central Arizona Water Conservation District through implementation of the CAWCD Board of Directors' strategic vision, building and maintaining trust-based relationships with stakeholders, protecting the District's resources and operating in a responsible and environmentally sound manner.



Management Council ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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Leadership & 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. The expected outcome was to expand the Strategic Talent Enablement Process (STEP) through continuation of Supervisor Academy, Management University and Leadership Institute. Continue use of Beyond the Buzz, Manager/Supervisor meetings and CAP Connections. Expand use of the Management Council teams.</p> <p>Accomplishment: Completed the sixth cohort of the Supervisor Academy, mostly virtually due to COVID. The seventh cohort was deferred until 2022. The second cohort of the Management University completed its 360-degree reviews, and the entire class completed two classes on self-awareness and the differences and similarities between leadership and management. The first-year implementation of new Quarterly Performance Conversations was implemented. Learning Together podcasts were especially timely during remote work. Employee focus groups helped define and communicate values for the new 2022 Strategic Plan. Although Beyond the Buzz and the regular Manager/Supervisor meeting were postponed in April 2020, both were continued virtually in the latter half of the year. The Management Council worked closely and collaboratively on developing and communicating programs to respond and adapt to the pandemic.</p>
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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. The expected outcome was to expand stakeholder outreach programs. Implementation and monitoring of the effectiveness of the Customer Service Task Force recommendations.</p> <p>Accomplishment: In spite of COVID-19, conducted numerous meetings with M&I, Tribal and Ag stakeholder meetings, held several stakeholder briefings and roundtables on relevant topics pursuant to Customer Service Task force recommendations and launched CAP University with several variations for different audiences.</p>
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Management Council ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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. The expected outcome was to implement the Drought Contingency plan beginning in 2020. Engage in the interstate and intra-state discussions regarding the Re-consultation of the 2007 Guidelines. Transition through the closure of the Navajo Generating Station and have reliable and cost-effective replacement power in place beginning in 2020.</p> <p>Accomplishment: Completed interviews with all 38 delegates on the DCP Steering Committee and re-commissioned the steering committee as the Arizona Reconsultation Committee (ARC) to begin to prepare for Reconsultation on the 2007 Guidelines. Also established the Modeling and Analysis Work Group (MAWG) and the Strategy Work Group to support the work of the ARC, meeting several times. Basin States work on the implementation of DCP continued, with start-up discussions on Reconsultation. Primary focus in 2021 was on preparedness for a Tier 1 shortage declaration in 2022. The final draft of the Water Quality Guidance Document supporting the System Use Agreement was completed. The new subcontracts for the first phase of the NIA-priority reallocation were completed and executed in time for water orders to be placed for 2022. A reliable and cost-effective energy portfolio has been put in place, including renewables, that meets CAP needs for base load pumping energy and is flexible enough to take advantage of market opportunities and avoid market risks.</p>
		<p>Action Plan: Continue to establish methods which encourage advancement of employee performance and skills through increased understanding of existing programs, policies and procedures. The expected outcome was to continue with the Strategic Talent Enablement Program (STEP) Supervisor Academy, Management University and Leadership Institute. Maintain an effective apprenticeship program and journeyman level development.</p> <p>Accomplishment: With some interruptions due to COVID-19, we continued ongoing STEP programs, Manager/Supervisor meetings and all-employee "Beyond the Buzz" convocations to communicate key organizational initiatives. Updated and communicated key policy changes, including many directly related to managing the workforce during the pandemic. CAP completed its third recertification in the Voluntary Protection Program for Safety (VPP), received the Voluntary Environmental Stewardship Program (VESP) Platinum level award and recognition as one of the Valley of the Sun's Healthiest Employers.</p>
Project Reliability	Maintain high levels of skills and job proficiency among employees	

Management Council ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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. The expected outcome was to divert CAP's full entitlement less water that is targeted for protection of Lake Mead. Meet or exceed established targets for scheduled and unscheduled outages. Maintain expectations established by published rates with and without shortage and mitigation.</p> <p>Accomplishment: Work schedules were impacted due to COVID-19, and some non-essential work was deferred. Planning for 2022-2023 incorporates work to catch up. Mark Wilmer Unit 5 was returned to service during 2021, restoring full flexibility to the pumping schedule. Both water deliveries and protection volume targets were met, with the exception of a small amount due to a gauge error that will be made up in 2022. CAP received the AMWA Platinum Award for Utility Excellence and the Build Arizona Award.</p>
	Improve technology management	<p>Action Plan: Implement technology that increases access to information by employees, directors, stakeholders and the general public. The expected outcome was to evaluate and implement technology solutions relating to data integration, remote access, mobile applications and enhanced security.</p> <p>Accomplishment: The technology challenges of moving half our workforce to remote operations in early 2020 were successfully met, followed by the reverse in mid-2021. Board and Board Committee meetings were conducted virtually for 16 months. The Analytics and Information Management (AIM) program was launched in early 2020, with a gap analysis completed and proof of concept underway. Transition to Microsoft 365 (cloud-based office) has been completed and additional cloud-based applications are being evaluated, as the security and reliability of these approaches allow us to move away from a strictly on-premises strategy.</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 close the Navajo Generating Station by the end of 2019 and transition into decommissioning. The expected outcome was to continue to contract for NGS replacement power. Completion of decommissioning scope and financing plans.</p> <p>Accomplishment: CAP has successfully transitioned through the closure of NGS and has established a reliable and cost-effective power portfolio that meets base load pumping needs and is sufficiently flexible to take advantage of market opportunities and avoid market risks. Funds have been set aside to cover all identified decommissioning costs and decommissioning is underway.</p>

Management Council ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 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 methodologies for water rates, capital charges, reserves, and use of taxes, discuss related issue with stakeholders and the Board. The expected outcome was to be in conjunction with expanded use of Stakeholder Briefings and Customer Roundtables, complement the formal rate-setting process with additional discussions regarding the impact of shortage on water delivery rates, the utilization of rate stabilization funds and the use of property taxes.</p> <p>Accomplishment: Several stakeholder briefings and roundtables have been devoted to the topics of rate-setting and taxes. A new mechanism to apply current year tax revenues two years in advance to M&I Capital Charges appears to have satisfied the need for rate predictability without committing future tax revenues. The transition to a Tier 1 shortage in 2022 has been a focus, with a preliminary determination made as to the disposition of shortage stabilization funds that have been set aside for this purpose.</p>
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Action Plan: Continue to implement the CAGR water supply acquisition program. The expected outcome was to begin the implementation of the transaction between the CAGR, the Gila River Indian Community and Gila River Water Storage LLC. Following up on other opportunities that arose while the GRIC transaction was being negotiated. Complete the CAGR mid-Plan review.</p> <p>Accomplishment: The mid-plan review was completed, which demonstrated that CAGR is meeting its statutory duties and its current water supply is well-positioned with respect to its expected replenishment obligation as additional supplies are sought. CAGR is working closely with the Post-2025 AMA Committee of the Governor's Water Augmentation, Innovation and Conservation Council (GWAICC) to address several areas of common interest, including the disconnect between pumping and replenishment, the assured water supply rules and the CAGR water supply.</p>

Management Council ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Water Supply	Manage Colorado River to optimize CAP water availability	<p>Action Plan: Engage in processes at the federal, regional and state arenas that protect and enhance western water supplies, particularly the Colorado River. The expected outcome was to Implement the completion of Lower Basin Drought Contingency Plan. Avoid or mitigate shortage in 2020-2025. Begin Re-consultation on the 2007 Guidelines. Participate in the implementation of Minute 323 to the Mexican Treaty.</p> <p>Accomplishment: CAP is working closely with Arizona stakeholders to implement Tier Zero reductions in 2020 and 2021 and prepare for a Tier 1 shortage in 2022. The first phase of NIA-priority water reallocations was finalized, and new subcontracts were executed in time for water to be ordered for 2022. The final Water Quality Guidelines for the System Use agreement were adopted by the Board. CAP and ADWR have stood up the Arizona Reconsultation Committee (ARC) and the Modeling and Analysis Work Group and Strategy Team to prepare for Reconsultation on the 2007 Guidelines. Meetings on this effort have begun among the Colorado River Basin states.</p>

Management Council

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
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Public Trust, Partnerships and Leadership	Increase awareness of CAP and engage the general public on CAP's role in the management of Arizona's water; seek feedback and identify opportunities to collaborate and improve customer service; continue active Board and staff engagement with constituents, stakeholders, and other water entities	<p>Action Plan: Build upon current efforts to increase dialogue and engagement, proactively communicate and share information, particularly in the context of shortage preparedness and sustainability; continue to implement issue-specific briefings, seek feedback and develop and implement outreach strategies and collaborative partnerships.</p> <p>Expected Outcome: Increase engagement and collaboration with constituents, stakeholders and other water entities through messaging, meetings, briefings and roundtables.</p>
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Water Supply	Address impacts from Colorado River drought and overallocation; actively participate in plans and support relationships to maintain a healthy Colorado River system; facilitate deliveries of non-Project water through the CAP system; collaborate in the development of new water supplies and other water augmentation efforts; work collaboratively in the recovery of water stored by the Arizona Water Banking Authority	<p>Action Plan: Support implementation of the Drought Contingency Plan; co-lead Arizona Reconsultation Committee process and participate in the Reconsultation of the 2007 Guidelines; participate in and support implementation of Minute 323 desalination and other augmentation initiatives and fulfillment of Reclamation's DCP and augmentations commitments; advance completion of the Water Quality Guidelines for non-Project water and definition on system improvements; continue and accelerate coordination with AWBA and ADWR and stakeholders on recovery planning and infrastructure.</p> <p>Expected Outcome: Deploy CAWCD mitigation resources and successfully implement DCP agreements and commitments; actively participate in the Arizona Reconsultation Committee process; actively participate in the Basin States salinity control program and bi-national workgroups and processes in support of implementing Minute 323; complete the Water Quality Guidance Document and establish engineering and related standards for turn-ins; continue to participate as an active member of the Recovery Planning Advisory Group.</p>
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Management Council

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Project Reliability	Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability; maintain and improve the security and reliability of information technology systems; advance focused plans to support CAP business continuity	<p>Action Plan: Engage the asset management/reliability excellence community of practice to gain insights and knowledge of best practices; ensure that operations, maintenance and replacement activities for CAP assets are prioritized based on the condition of the asset and the consequence of a failure; continue to enhance cybersecurity awareness; employ technology to improve access to and evaluation of business information; maintain and modify preparedness and disaster recovery plans based on COVID-19 experience.</p> <p>Expected Outcome: Participate in RLI monthly meetings; develop and implement a process/application to measure Preventative Maintenance Compliance on 5 year Condition Assessments; complete quarterly staff cybersecurity training with 95% compliance rate; deploy new technologies as appropriate; complete revised Business Disaster Recovery Plan and conduct mock exercises to implement revised plan.</p>
Finance	Manage capital and operations and maintenance budgets, debt, revenues, tax rates, water rates, and reserves effectively and transparently; solicit and incorporate input from constituents, customers, and stakeholders on rate setting, capital charges, and taxes	<p>Action Plan: Develop 2024-2025 budget and appropriate reserve, rate-setting and property tax strategies consistent with expected shortage scenarios and essential infrastructure maintenance needs; collect and utilize feedback from stakeholder briefings and roundtables.</p> <p>Expected Outcome: Adopt 2024-25 budget, 2023-28 water rates and annual tax rates; conduct budget and rate briefings and/or roundtables as budget and rates are developed and include stakeholder perspectives in Board briefs.</p>

Management Council

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Stewardship and Sustainability	Implement plans for climate change adaptation and mitigation and develop plans to address climate-related impacts; explore opportunities to support sound water management within CAP's jurisdiction and through partnerships; explore opportunities related to species and habitat conservation; Evaluate and consider the relevant environmental impacts of moving non-Project water	<p>Action Plan: Pursuant to the CAP Climate Adaptation Plan, implement strategies that address climate change impacts in order to maintain high levels of service, protect infrastructure and CAP operational viability; assess CAP's carbon footprint and explore feasible ways to reduce it consistent with CAP's mission; collaborate on developing appropriate species and habitat practices relating to future hydrologic conditions, shortage, climate change and operating rules; complete the Water Quality Guidance and associated modeling to prepare for wheeling.</p> <p>Expected Outcome: Implement short-term strategies in the CAP Climate Adaptation Plan; define the process to quantify and manage carbon footprint; continued participation in the Multi-Species Conservation Program and develop an MSCP process to engage Fish and Wildlife Service on DCP and shortage conditions; completion of Water Quality Guidance Document and CAWCD System Water Quality Model.</p>
Workforce	Implement programs to support building a diverse, inclusive and representative workforce; Monitor CAP's workforce climate, employee well-being and engagement	<p>Action Plan: Increase outreach to create awareness and response to CAP recruitment in targeted areas; expand internship and/or scholarship programs to enhance recruitment in targeted areas; develop vision and goals for well-being and cultural climate; conduct employee engagement assessment and monitor progress in targeted areas.</p> <p>Expected Outcome: Increase in recruitment and internship and/or scholarship program efforts in targeted areas; create vision statements defining success in terms of employee engagement and well-being; demonstrate progress in targeted areas of employee engagement.</p>

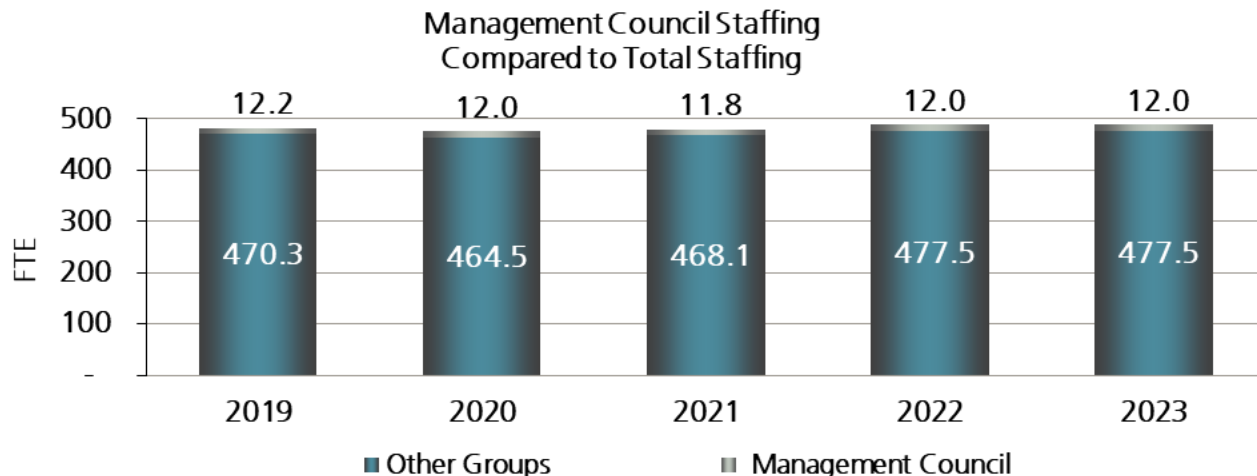
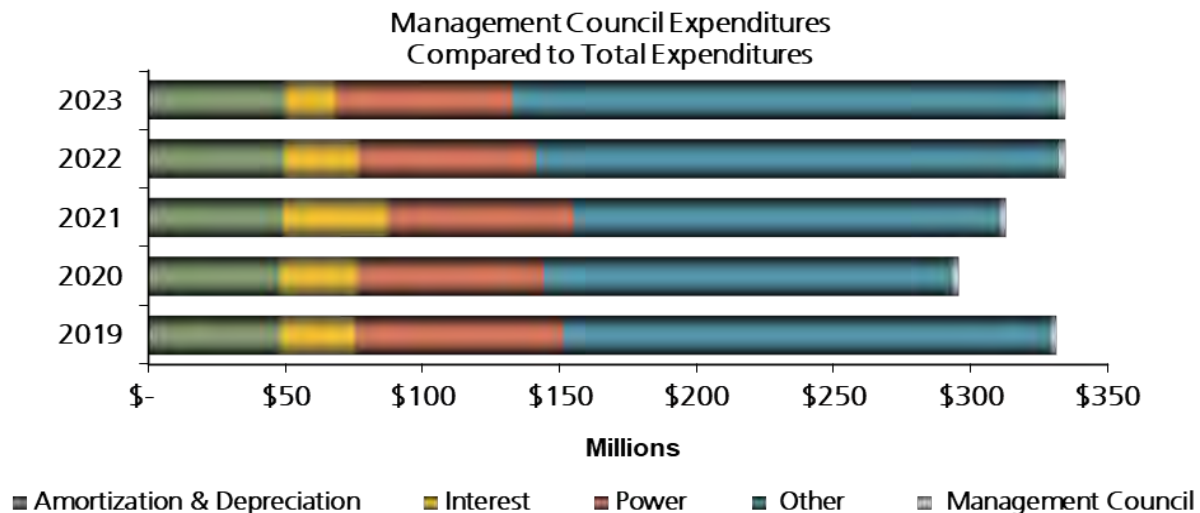
Management Council

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Power	Address dynamic energy markets as they affect CAP power acquisitions; Actively engage in the transmission market to ensure access to diversified, low-cost energy resources; Take advantage of developments in energy efficiency and renewable resources, including storage	<p>Action Plan: Continually monitor energy developments and provide periodic updates to the CAP Board and EROC on market prices for energy, technological advances, cost of renewable generation, and procurement of power resources; strengthen partnerships with entities that have, or may seek to build, transmission capacity in Arizona to position CAP to take appropriate action; incorporate renewable resources and battery storage into the CAP portfolio when economically viable in relation to market purchases.</p> <p>Expected Outcome: Provide regular updates to Board and Finance, Audit and Power Committee and EROC; continue active participation with APA, IEDA, WAPA SRP, APS, and TEP and report on transmission opportunities to FAP and EROC; continuously evaluate opportunities to incorporate renewable resources into CAP's power portfolio.</p>
Groundwater Replenishment	Responsibly meet CAGRDR's statutory replenishment obligation; Ensure continued effective management, reasonable pricing and financial viability of CAGRDR	<p>Action Plan: Continue to administer an effective water acquisition program; prepare and mitigate for shortage impacts to CAGRDR; begin to develop the 2025 plan of operation; participate actively in dialogues regarding the resilience and long-term role of CAGRDR.</p> <p>Expected Outcome: Successfully implement an updated water supply acquisition strategy and plan for and mitigate shortage impacts to existing wet water supply; evaluate acquiring long-term, higher priority water supplies less susceptible to shortage; complete new Member Land and Member Service Area projections and develop draft outline of Plan of Operation; continue active participation in the GWAICC Post-2025 AMA Committee.</p>

Management Council BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 1,914	\$ 2,068	\$ 2,055	\$ 2,250	\$ 2,363
Outside services	61	76	43	69	66
Materials & supplies	1	1	1	2	2
Other expenses	48	24	34	40	38
Total Operating Expenses	\$ 2,024	\$ 2,169	\$ 2,133	\$ 2,361	\$ 2,469
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 2,024	\$ 2,169	\$ 2,133	\$ 2,361	\$ 2,469
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 2,024	\$ 2,169	\$ 2,133	\$ 2,361	\$ 2,469
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 2,024	\$ 2,169	\$ 2,133	\$ 2,361	\$ 2,469
Staffing (FTE)	12.2	12.0	11.8	12.0	12.0





CAP

CENTRAL ARIZONA PROJECT

Legal Services

Mission: The Legal Services Group provides timely, effective and high-quality legal services to the Board of Directors, management and staff of the CAWCD.

LEGAL SERVICES

Jay Johnson
General Counsel
(623) 869-2374

Ensure compliance with laws, regulations and policies applicable to CAWCD, manage disputes, and support achievement of the District's strategic and business objectives through the provision of high-quality legal services.

Legal Services

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Water Supply	Optimize reliability and sustainability of CAP water supply	<p>Action Plan: Work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA water. The expected outcome was to develop an appropriate strategy for reallocation of CAP NIA water.</p> <p>Accomplishment: Met with the United States and finalized the draft NIA Subcontract. The NIA reallocation has received final approval as published in the Federal Registry. The NIA subcontracts will be approved by the CAWCD Board on June 10, 2021 and we anticipate that all participants will fully execute in October 2021.</p>
		<p>Action Plan: Participate in and assist with implementation of Colorado River management. The expected outcome was to participate in reconsultation under the 2007 Guidelines (to extend/modify/renew the Guidelines beyond 2026). CAWCD management and staff are members of key Basin technical, policy and negotiation groups. Support and provide assistance for the implementation of interstate and intrastate DCP agreements.</p> <p>Accomplishment: DCP agreements were signed and legislation was passed. The program is being implemented pursuant to schedule. The AZ reconsultation committee has been formed and meetings are taking place.</p>
	Complete and implement Water Wheeling Agreements	<p>Action Plan: Support CAP staff and CAP Board in development and implementation of a standard form wheeling agreement and associated firming and wheeling contracts. The expected outcome was to work with CAWCD staff to implement the program for wheeling non-Project Water, including associated agreements.</p> <p>Accomplishment: Legal has supported all facets of developing a wheeling program and continues to provide support as the program makes progress toward implementation.</p>
		<p>Action Plan: Provide legal support in the development and implementation of recovery agreements. The expected outcome was to work with staff to develop and implement recovery agreements.</p> <p>Accomplishment: Continue to provide support in the development and implementation of recovery agreements.</p>

Legal Services

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Action Plan: Continue to meet the CAGRD's long-term replenishment obligations. The expected outcome was to work with CAGRD to acquire water supplies to meet replenishment obligations and implementation of the GRIC water supply acquisition agreement.</p> <p>Accomplishment: Legal has supported CAGRD on acquisition of recovery well permits needed for implementation of CAGRD/GRIC deal. Worked on one-year lease with the Fort McDowell Indian Community. Final Recovery Well Permits issued by ADWR for implementation of CAGRD/GRIC deal. The Purchase and Sale Agreement for Long-Term Storage Credits with Tohono O'odham Nation was approved and signed by the Board on June 4, 2020. The Assignment and Transfer Agreement between CAWCD and the City of Peoria was approved and signed by the Board on September 3, 2020. The Purchase and Sale Agreement for Long Term Storage Credits was also approved and Signed by the Board on September 3, 2020. Working on amending the subcontracts for Peoria and CAGRD's entitlements.</p>
	Maintain existing generation resources	<p>Action Plan: Prepare for NGS decommission with the expected outcome of assisting in the management of CAP's obligations with the decommissioning of NGS. The expected outcome was to assist in the management of CAP's obligations with the decommissioning of NGS post 2019.</p> <p>Accomplishment: The District Court dismissed litigation regarding NGS. NGS litigation was resolved in CAP's favor. Legal provided support on decommissioning issues. Legal coordinated with the Bureau of Reclamation to amend the S02 agreement to use funds for decommissioning by letter agreement No. 02-CU-30-1169.</p>
Power		<p>Action Plan: Provide legal support in the evaluation of alternative generation resources. The expected outcome was to support the process of finding and securing alternative power resources to replace NGS.</p>
	Secure reliable, sustainable, cost-effective generation resources	<p>Accomplishment: Legal advised on two agreements related to power post-NGS that were specific to NGS closing. They are the 3-Party Navajo Transmission System Capacity Agreement, Contract No. 19-CU-30-P1230 and the Power Purchase Agreement between AZ Solar Storage 2 LLC and CAWCD. Legal also advised on the 3-party agreement between WAPA, Reclamation and CAWCD for the CAP Transmission System Operation Maintenance and Transmission Agreements and assisted Operations as needed on Power Purchase Agreements.</p>

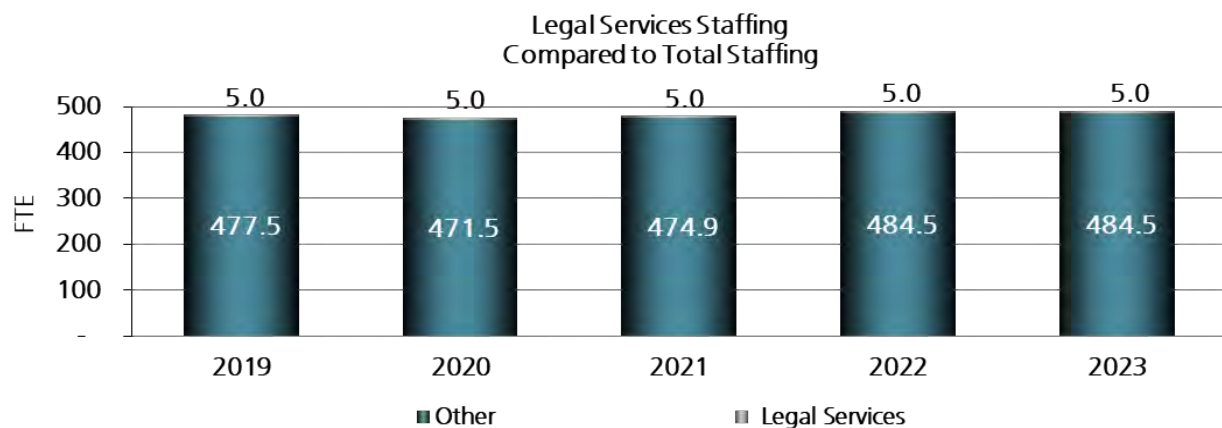
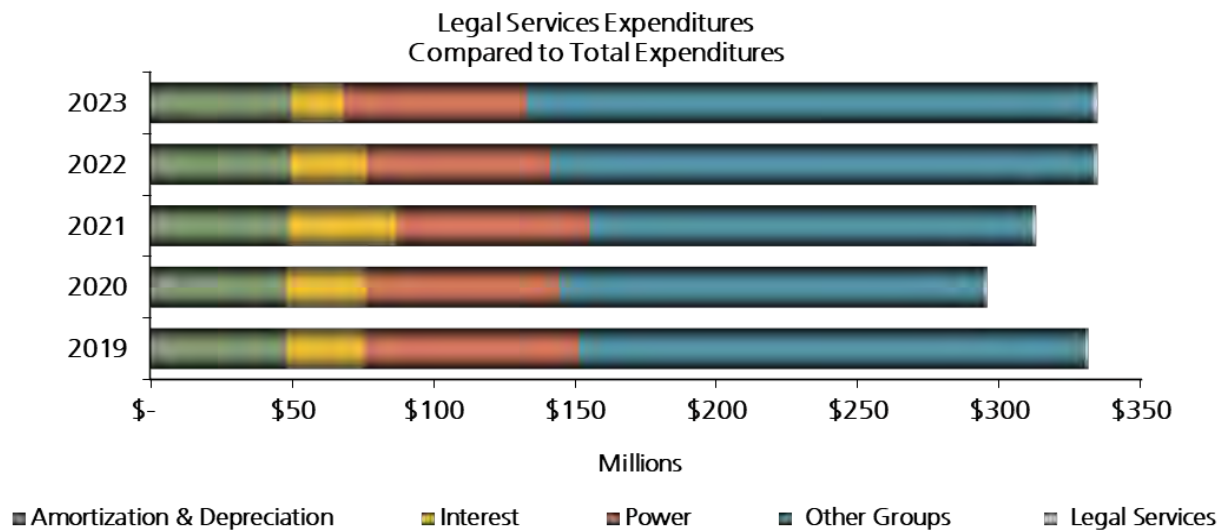
Legal Services

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
	Work collaboratively in the recovery of water stored by the Arizona Water Banking Authority	<p>Action Plan: Develop recovery implementation agreements as needed.</p> <p>Expected Outcome: Facilitate agreements with partners, consistent with the System Use Agreement.</p>
Water Supply	Actively participate in plans and support relationships to maintain a healthy Colorado River System	<p>Action Plan: Support the intrastate and interstate partnerships for reconsultation negotiations.</p> <p>Expected Outcome: Work collaboratively with ADWR and other parties within Arizona and within the Lower Basin States.</p>
	Facilitate deliveries of non-Project water through the CAP system, pursuant to the System Use Agreement	<p>Action Plan: Support Engineering in its development of Guidance for parties entering into System Use Agreement in collaboration with the Bureau of Reclamation.</p> <p>Expected Outcome: Guidance is successfully developed.</p>
Public Trust, Partnerships and Leadership	Continue active Board and staff engagement with constituents, stakeholders and other water entities	<p>Action Plan: Support and facilitate tribal water settlements.</p> <p>Expected Outcome: Continue to directly engage and protect the interests of CAP in settlement negotiations and related litigation related to Navajo-Hopi, Tohono O'odham and Hualapai, as well as other tribal negotiations pertaining to CAP that may be initiated.</p>

Legal Services BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 791	\$ 829	\$ 912	\$ 973	\$ 1,021
Outside services	220	195	391	420	420
Materials & supplies	1	-	2	5	5
Other expenses	64	41	62	93	93
Total Operating Expenses	\$ 1,076	\$ 1,065	\$ 1,367	\$ 1,491	\$ 1,539
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,076	\$ 1,065	\$ 1,367	\$ 1,491	\$ 1,539
CAGR					
Other Funds and Accounts					
Total Operating Expenses	\$ 1,076	\$ 1,065	\$ 1,367	\$ 1,491	\$ 1,539
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,076	\$ 1,065	\$ 1,367	\$ 1,491	\$ 1,539
Staffing (FTE)	5.0	5.0	5.0	5.0	5.0





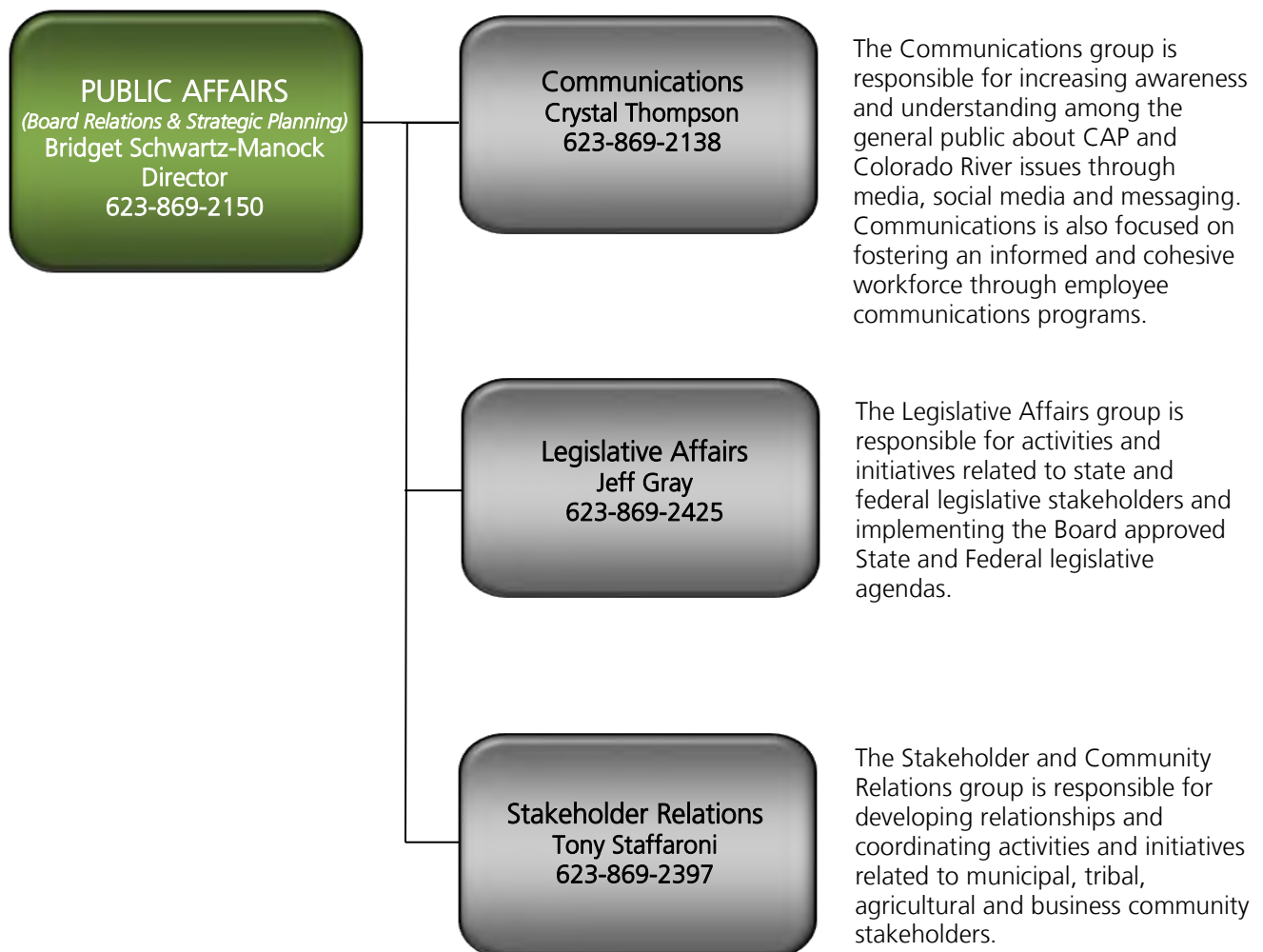
CAP

CENTRAL ARIZONA PROJECT

Public Affairs

Mission: Public Affairs will strategically advance CAP's mission by developing a consistent and unified voice and by building collaborative relationships with internal and external stakeholders. Public Affairs will be a leader in outreach, partnership and communications to position CAP as a valued, respected innovator and collaborator in water management regionally and nationally.

CAP's Public Affairs Department has five main functions: Board relations and support, oversight of strategic planning, communications, legislative affairs, and stakeholder and community relations.



Public Affairs

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Leadership & Public Trust	Improve understanding about CAP and associated water, power, and infrastructure issues	<p>Action Plan: Increase opportunities for Board interaction with their peers on other organizations. The expected outcome was to identify and host meetings with peers in other organizations to increase opportunities for Board interaction. (Examples include: MWD Board of Directors, mayors, councilmembers and tribal councilmembers.)</p> <p>Accomplishment: Board interaction with peers continues to increase, with numerous opportunities taking place throughout 2020 and 2021. Board members had interactions with members of the federal delegation, mayors, council members, state legislators, and tribal council members.</p>
		<p>Action Plan: Develop a proactive communications plan to manage drought contingency planning and shortage declaration. The expected outcome was to create public awareness campaign to advance Board policies. Develop outreach plan with appropriate-level informational materials to target external stakeholders, general public and employees.</p> <p>Accomplishment: Joint and CAP-specific communications with partner agencies locally and regionally has advanced understanding among the public, stakeholders and employees about DCP and shortage. Public engagement with articles and social media posts on these subjects continues to increase.</p>
	Improve relationships with customers and stakeholders	<p>Action Plan: Regularly meet and engage a range of CAP stakeholders and interests. The expected outcome was to facilitate regular stakeholder outreach meetings across the three county service area, representative of all stakeholder classes. Host Beyond the Buzz employee meetings.</p>
		<p>Accomplishment: Board members and Public Affairs staff met and engaged with a broad range of stakeholders from municipal, tribal and agricultural interests throughout the CAP service area. Outreach included joint coordination meetings and individual meetings, as well as hosting briefings, and roundtable meetings. Semi-annual Beyond the Buzz employee meetings have provided opportunities for employees to become more informed about CAP issues and helped foster improved relationships between management and employees</p>

Public Affairs

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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Action Plan: Continue improvement of customer service processes identified by the Customer Service Task Force. The expected outcome was to engage CAP Board discussion, identification and adoption of proposed new action plans to enhance CAP customer service.

Improve relationships with customers and stakeholders

Accomplishment: Implementation of the Customer Service Task Force Recommendations continued through discussions and strategic issues noted in the Board Strategic Plan, including three Board retreats and five stakeholder forums to provide input into the process. In addition to the ongoing implementation of new measures adopted by the Task Force, continued to enhance stakeholder outreach efforts and developed the CAP University Program and held the inaugural course in 2020, and conducted five courses in 2021.

Leadership & Public Trust

Continually inform current water leadership

Action Plan: Continue outreach to local, state and federal officials to enhance their understanding of CAP and its economic value to the State, as well as critical water, power and infrastructure issues. The expected outcome was to maintain regular communication and relationships with local, state and federal officials. Actively engage in business and community organizations to ensure understanding of CAP value and role in the economy.

Accomplishment: Board Members and Public Affairs staff provided numerous briefings to local, state and federal elected officials and their staff, including mayors, councilmembers, and tribal leaders.

Equip Board members to effectively represent CAP and its positions

Action Plan: Develop a new Board Strategic Plan. The expected outcome was to work with consultant and engage the Board in the development of a new strategic plan.

Accomplishment: The Board Strategic Plan was developed in 2020 with assistance from consultant The Novak Group, and was unanimously adopted by the Board in December 2020. Plans for implementation were created in 2021 for implementation beginning in 2022.

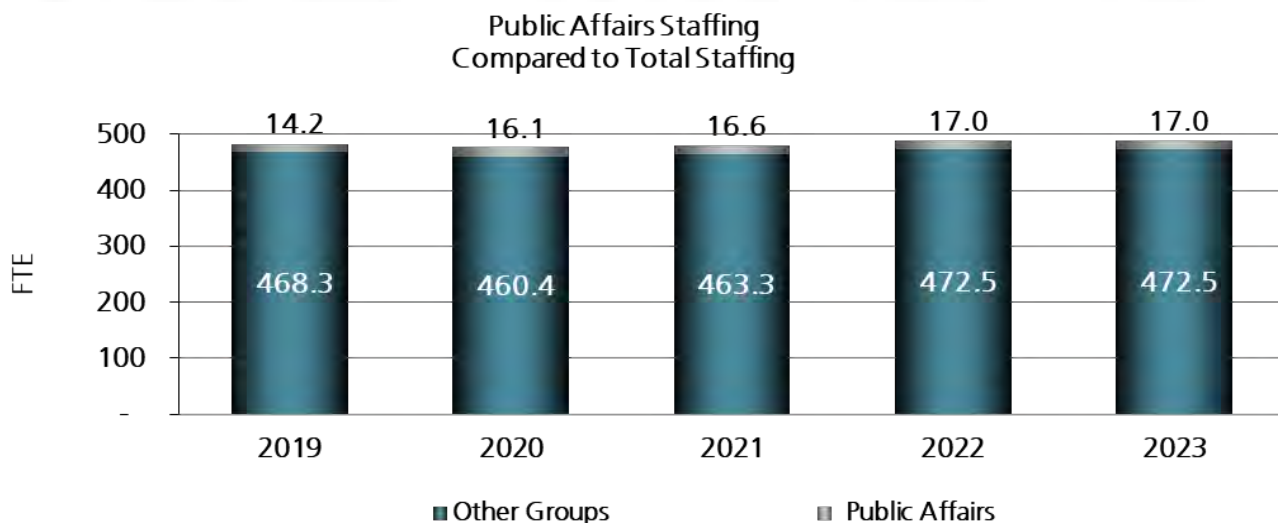
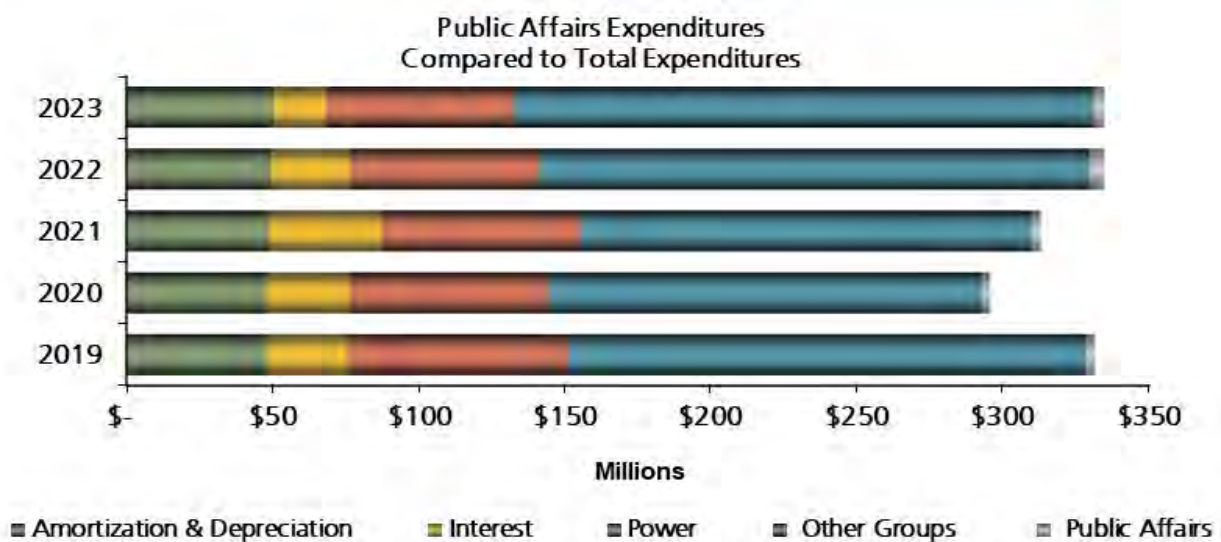
Public Affairs

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
	Increase awareness of CAP and engage the general public on CAP's role in the management of Arizona's water	Action Plan: Continue to offer CAP University learning opportunities to the public and other targeted audiences. Expected Outcome: Increase number of participants and variety of courses offered each year.
Public Trust, Partnerships and Leadership	Continue active Board and staff engagement with constituents, stakeholders, and other water entities	Action Plan: Develop and implement CAP's state and federal legislative agenda/programs, as approved by the Public Policy Committee and Board of Directors. Expected Outcome: Successfully implement legislative guidance by growing and cultivating relationships with key officials and water entities.
		Action Plan: Expand the CAP data available to stakeholders. Expected Outcome: Identify and explore possible ways to use technology to provide more CAP data online to the public.
	Seek feedback and identify opportunities to collaborate and improve customer service	Action Plan: Administer a customer service survey on a biannual basis. Expected Outcome: Successfully administer survey in 2023.

Public Affairs BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 1,322	\$ 1,495	\$ 1,541	\$ 1,661	\$ 1,745
Outside services	1,143	1,256	1,183	2,700	1,395
Materials & supplies	27	41	59	52	52
Other expenses	400	117	367	461	474
Total Operating Expenses	\$ 2,892	\$ 2,909	\$ 3,150	\$ 4,874	\$ 3,666
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 2,892	\$ 2,909	\$ 3,150	\$ 4,874	\$ 3,666
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 2,892	\$ 2,909	\$ 3,150	\$ 4,874	\$ 3,666
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 2,892	\$ 2,909	\$ 3,150	\$ 4,874	\$ 3,666
Staffing (FTE)	14.2	16.1	16.6	17.0	17.0



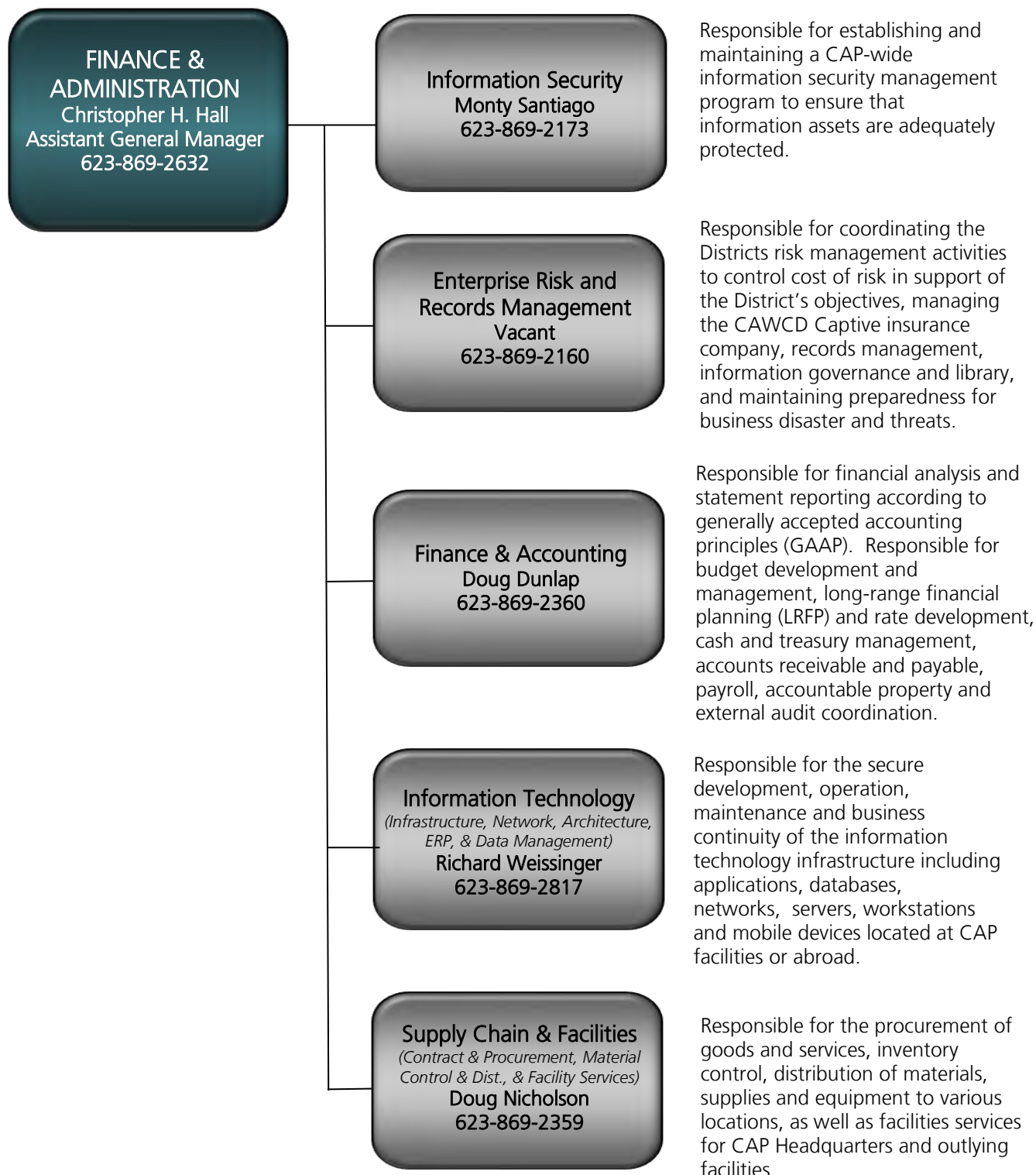


CAP

CENTRAL ARIZONA PROJECT

Finance & Administration - Assistant GM

Mission: The Finance & Administration Group is responsible for managing financial and administrative activities of the District, including finance and accounting, enterprise risk, records and resiliencies, supply chain, facilities services and information technologies. Ensures the accuracy and integrity of financial reporting, including planning, rates, budget, and reserves as well as compliance with records management standards, purchasing policy and oversight of the Captive insurance operations.



Finance & Administration

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Finance	Effectively communicate financial issues to Board, customers and stakeholders	<p>Action Plan: Continually evaluate and resolve financial threats. Timely identify the magnitude of potential issues and provide recommendations and options to mitigate threats. Ensure independent audit reviews and other required financial communications are performed timely and accurately. Ascertain that reports and communications are provided in required time frames. Provide periodic updates to the Board, as appropriate. Compile financial reporting and communications list, and meeting reporting deadlines. The expected outcome was to evaluate impacts of official accounting changes and inform management and Board on financial implications, while complying 100% with all governmental accounting policies and procedures.</p> <p>Accomplishment: Successfully held customer briefing and FAP Committee and Board presentations on 2021-2026 rates. 2019 and 2020 audits were successfully completed and released Annual Financial Report. Recommended funding the decommissioning cash shortfall from the SO2 credit reserves, which was approved. Provided 2021 budget review to FAP, recommended no changes. Provided status of Voluntary Shortage Stabilization Program to FAP and worked with customers to get 100% signup to the new program. (Risk) Continued analysis on COVID-19 impacts and mitigation. Presentations to FAP and Board on insurance program and successful renewal of both Captive and Commercial Excess Insurance contracts.</p>
	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. The expected outcome was to host Capital Charge Roundtable annually to engage M&I customers and provide feedback to the Board.</p> <p>Accomplishment: Coordinated 2020/2021 budget with 2021 forward rates, held discussions on relationship of budget and rates. Continued progress toward highest rebate available on card programs, which is based on payment from invoice time.</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. The expected outcome was the continued monitoring while maintaining the integrity of the source and use of funds and ensure compliance to contracts, agreements and policies. Develop recommendations for property tax proceeds in 2020 and 2021.</p> <p>Accomplishment: Held discussions on reserve strategy and rates during customer briefings and FAP meetings. Worked with project management on LRFP for Big R rates. Ongoing planning and monitoring for both CAP and CAGR operations. Through Customer Round Table, determined utilization profile for rate stabilization funds for 2022 rates.</p>

Finance & Administration

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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. The expected outcome was to strategically developing new employees and current employees in new positions to establish skill levels required to maintain customer service levels.</p> <p>Accomplishment: Five members of ERRM participated in a variety of training. Doug Dunlap worked with Finance team to develop more extensive training in own and other areas. Continued CAGR/Finance/Accounting coordination meetings. Implemented Captive quarterly review (internal) which is developing cross-departmental communication and coordination. In September presented to FAP preliminary report including state of insurance market. Captive Board approved recommended rate increase after review of rate analysis and reserve balances. Maria Cerda received her Certified Procurement Professional (CPP) certification. Erin Reilly received her Certified Professional Public Buyer (CPPB) certification.</p>
	Maintain preparedness for business and infrastructure disasters and threats	<p>Action Plan: Complete updates to pandemic status; updating Extraordinary Event policy and Pandemic section of the Emergency Operations Plan. Conduct tabletop exercises with a mock pandemic / workforce shortage scenario every three years with next scheduled exercise in 2020. The expected outcome was to complete awareness and application of business disaster recovery plans at the department level.</p> <p>Accomplishment: COVID-19 pandemic has required activating policies in live exercise. Lessons learned will be included in future policy update. CAP has exhibited flexibility and responsiveness to the ever-changing pandemic conditions. Technology preparedness resulted in a seamless transition to telework for many employees. Regular and timely COVID-19 communications from leadership are provided to all employees and housed for reference in CAP Connections. Ongoing monitoring of County, State and Federal sources on COVID-19 and providing updates to leadership.</p>

Finance & Administration

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
	Maintain preparedness for business and infrastructure disasters and threats	<p>Action Plan: Complete mock business disaster recovery (BDR) exercises in 2020 / 2021. Execute 3 BDR tests including a biannual offsite exercise. Validate all 18 critical systems can be recovered and available in less than 24 hours. Include testing of one non-critical system per test. Update the security awareness training program based on emerging threats and maintain annual awareness training compliance requirements. The expected outcome was to validate recovery processes and employees' ability to access the systems remotely. Complete annual security awareness training and one penetration test/audit to validate the security of CAP data.</p> <p>Accomplishment: Completed Quarterly IT DR test with external consultant. Continue to remedy audit findings identified in the 2019 Penetration test. All high priority findings have been resolved. IT is working closely with ICS teams on the SCADA upgrade to collaborate on infrastructure/network design. Re-designed DR testing scope to provide more diverse and challenging test scenarios. Updated the enterprise backup and restore processes and systems. Implemented quarterly Security Awareness Training Program. Performed penetration test in 2020 and vendor security audit in 2021.</p>
Project Reliability	Maintain effective information technology systems	<p>Action Plan: Design and implement technology solutions that will reduce manual processes and improve business processes for admin and field employees. The expected outcome was to provide direction to the Mobility committee and provide systems needed to securely share data internally and externally.</p> <p>Accomplishment: COVID-19 created a sudden need for an expansion of our secure, stable remote access capabilities. Continued to work with maintenance on expanding the mobile inspection process. AIM program provides framework for data access, use and visualization. Completed the installation remote access environment in the cloud. Mobile users can access many of CAP applications via the mobile client.</p> <p>Action Plan: Identify, assess & develop custom applications to integrate into a standard analytics platform. The expected outcome was to complete the data analytics program to allow data to be utilized by departments to efficiently manage CAP assets.</p> <p>Accomplishment: Revision, Inc. (Denver, CO) was awarded the contract for the implementation of enterprise Analytics and Information Management (AIM) program at CAP. Continue to work with Maintenance to expand the tools for business intelligence access and capabilities.</p>

Finance & Administration

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
		<p>Action Plan: Move technology governance to the next maturity level in five areas (Technology decision-making, technology business outcomes, technology strategic planning, technology accountability, technology risk). The expected outcome was to create a technology enterprise governance program for CAP and development standards for CAP.</p> <p>Accomplishment: Standard guidelines have been developed to enforce standard hardware and software supported by CAP. Implemented an IT service system that has improved incident management, service requests, and change management processes. Continue to review non standard requests through Technical Review Board (TRB). eHub has been redesigned to provide more self service information for employees.</p>
Project Reliability	Maintain effective information technology systems	<p>Action Plan: Assess and pilot technologies such as AI and machine learning with the goal of implementing solutions for business operations. The expected outcome was to research and implement technology that allows information to be shared and consumed.</p> <p>Accomplishment: Revision Inc. continues to work with CAP to implement the AIM program infrastructure including governance, process definition, identifying critical data sets and creating a roadmap for implementation of the longer term three phase program. The initial proof of concept focused on the Asset Maintenance data entity. We have identified tools (TAMR, Synergy) to help validate data quality to support business rules. The CMS (Content Management) improvement component of AIM is underway to improve findability. O365 rollout underway, moving the Microsoft suite and tools to the cloud.</p>
		<p>Action Plan: Validate security posture through security assessments and audits to improve the confidentiality, integrity and availability of CAP's data. Implement new tools to harden the information security environment. The expected outcome was to validate current security technology practices, identify new threats, complete assessments and update tools needed to secure CAP information.</p> <p>Accomplishment: Enterprise password manager rolled out to the entire organization. Implemented quarterly Security Awareness Program. Actively engaged with other utilities, governments, and private partners on security issues. Maintain relationships with the cybersecurity community. Performed penetration testing both internal and external, and resolved action items. Performed vendor security assessment and are mitigating any deficiencies with vendors that access CAP data.</p>

Finance & Administration

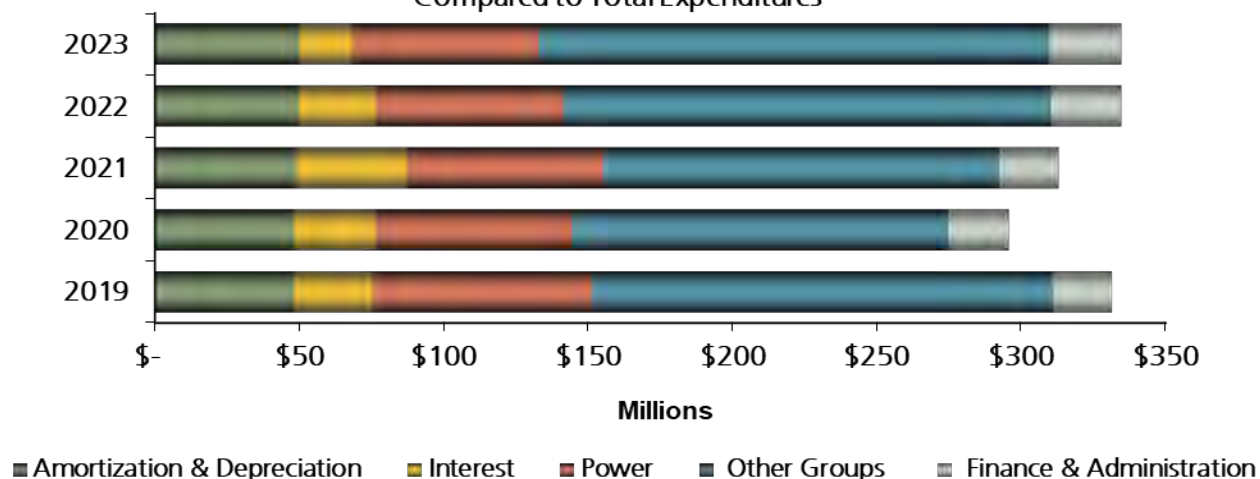
BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Finance	Manage capital and operations and maintenance budgets, debt, revenues, tax rates, water rates, and reserves effectively and transparently	Action Plan: Ensure budget either meets expectation for currently established rates, or variances can be adequately explained.
		Expected Outcome: Completed 2022-2023 budget complied through project detail.
		<hr/> Action Plan: Evaluate strategic reserve and working capital reserve targets based on current environment and present findings to the Board. Expected Outcome: Communicate and confirm strategic and working capital targets.
Project Reliability	Maintain and improve the security and reliability of information technology systems	Action Plan: Enhance individual awareness regarding cybersecurity threats by providing appropriate training and education to employees.
		Expected Outcome: 95% employee compliance to complete Security Awareness Training.
	Advance focused plans to support business continuity	<hr/> Action Plan: Maintain preparedness and disaster recovery for potential pandemics. Review existing plans based on COVID-19 experience and update on actual experience. Expected Outcome: Assess CAP response to current pandemic and update policies to address lessons learned. Complete awareness and application of business disaster recovery plans at the department level. Conduct tabletop exercise with a mock pandemic/workforce shortage in 2023.

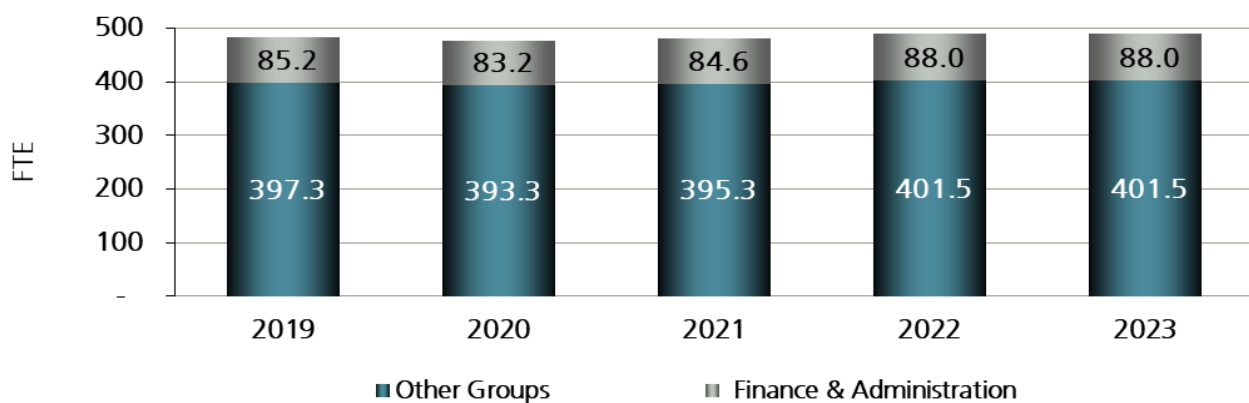
Finance & Administration BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 7,471	\$ 7,497	\$ 7,616	\$ 8,410	\$ 8,830
Outside services	7,249	8,610	8,845	9,645	9,950
Materials & supplies	1,339	1,208	1,289	1,057	1,025
Other expenses	2,100	2,048	2,211	3,258	3,925
Total Operating Expenses	\$ 18,159	\$ 19,363	\$ 19,961	\$ 22,370	\$ 23,730
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 18,159	\$ 19,363	\$ 19,961	\$ 22,370	\$ 23,730
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 18,159	\$ 19,363	\$ 19,961	\$ 22,370	\$ 23,730
Capital Expenditures	2,101	1,658	594	2,075	1,152
Total Expenditures	\$ 20,260	\$ 21,021	\$ 20,555	\$ 24,445	\$ 24,882
Staffing (FTE)	85.2	83.2	84.6	88.0	88.0

Finance & Administration Expenditures
Compared to Total Expenditures



Finance & Administration Staffing
Compared to Total Staffing



Finance & Administration

ENTERPRISE RISK AND RECORDS MANAGEMENT

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 666	\$ 594	\$ 483	\$ 598	\$ 628
Outside services	170	145	492	715	715
Materials & supplies	1	1	2	1	1
Other expenses	1,448	1,573	1,746	2,622	3,289
Total Operating Expenses	\$ 2,285	\$ 2,313	\$ 2,723	\$ 3,936	\$ 4,633
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 2,285	\$ 2,313	\$ 2,723	\$ 3,936	\$ 4,633
CAGR Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	\$ 2,285	\$ 2,313	\$ 2,723	\$ 3,936	\$ 4,633
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 2,285	\$ 2,313	\$ 2,723	\$ 3,936	\$ 4,633
Staffing (FTE)	7.6	6.3	5.1	6.0	6.0

Finance & Administration

FINANCE & ACCOUNTING

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 1,496	\$ 1,546	\$ 1,578	\$ 1,687	\$ 1,772
Outside services	1,271	1,389	1,576	1,429	1,547
Materials & supplies	12	4	11	7	10
Other expenses	55	19	32	55	56
Total Operating Expenses	\$ 2,834	\$ 2,958	\$ 3,197	\$ 3,178	\$ 3,385
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 2,834	\$ 2,958	\$ 3,197	\$ 3,178	\$ 3,385
CAGR Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	\$ 2,834	\$ 2,958	\$ 3,197	\$ 3,178	\$ 3,385
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 2,834	\$ 2,958	\$ 3,197	\$ 3,178	\$ 3,385
Staffing (FTE)	18.7	18.8	19.0	19.0	19.0

Finance & Administration INFORMATION TECHNOLOGY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 3,462	\$ 3,500	\$ 3,589	\$ 4,038	\$ 4,240
Outside services	4,557	5,805	5,133	5,472	5,574
Materials & supplies	584	703	692	425	425
Other expenses	520	431	377	503	502
Total Operating Expenses	\$ 9,123	\$ 10,439	\$ 9,791	\$ 10,438	\$ 10,741
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 9,123	\$ 10,439	\$ 9,791	\$ 10,438	\$ 10,741
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 9,123	\$ 10,439	\$ 9,791	\$ 10,438	\$ 10,741
Capital Expenditures	2,101	1,658	559	2,075	1,152
Total Expenditures	\$ 11,224	\$ 12,097	\$ 10,350	\$ 12,513	\$ 11,893
Staffing (FTE)	32.4	32.1	33.5	36.0	36.0

Finance & Administration SUPPLY CHAIN & FACILITIES

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 1,847	\$ 1,857	\$ 1,966	\$ 2,087	\$ 2,190
Outside services	1,251	1,271	1,644	2,029	2,114
Materials & supplies	742	500	584	624	589
Other expenses	77	25	56	78	78
Total Operating Expenses	\$ 3,917	\$ 3,653	\$ 4,250	\$ 4,818	\$ 4,971
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 3,917	\$ 3,653	\$ 4,250	\$ 4,818	\$ 4,971
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 3,917	\$ 3,653	\$ 4,250	\$ 4,818	\$ 4,971
Capital Expenditures	-	-	35	-	-
Total Expenditures	\$ 3,917	\$ 3,653	\$ 4,285	\$ 4,818	\$ 4,971
Staffing (FTE)	26.5	26.0	27.0	27.0	27.0



CAP

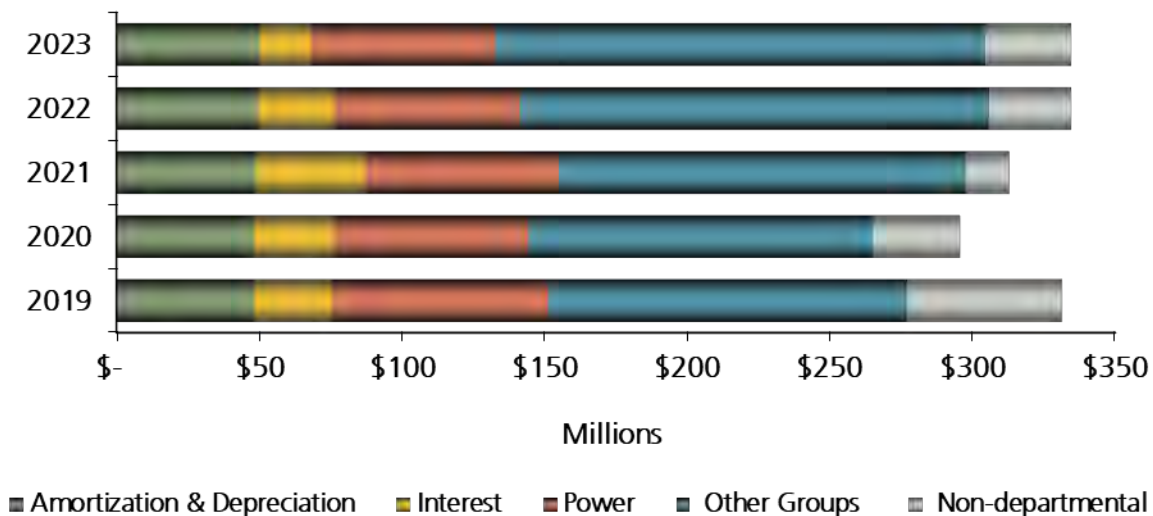
CENTRAL ARIZONA PROJECT

Non Departmental BUDGET SUMMARY

The Non Departmental expenditures consist of items that are not managed at a department level, such as depreciation, amortization, employer taxes, allocated overhead, pumping power, transmission and interest. These items are managed primarily through the Finance department with the exception of power and transmission that are managed by the Power Programs department.

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating & Non-operating Expenses					
Salaries & benefits	\$ 21,541	\$ 23,629	\$ 23,309	\$ 26,348	\$ 28,138
Pumping power & capacity charges	75,900	68,157	68,046	64,956	64,410
Transmission	17,415	14,578	15,912	16,037	15,580
Depreciation & amortization	48,139	48,053	48,944	49,674	50,142
Interest expense	27,316	28,109	38,212	26,666	18,212
Other expenses	9,149	(17,173)	(31,430)	(20,845)	(21,252)
Total Operating & Non-operating Expense	\$ 199,460	\$ 165,353	\$ 162,993	\$ 162,836	\$ 155,230
Expenditures by Fund					
Operating & Non-operating Expenses					
General Fund	\$ 211,210	\$ 175,533	\$ 187,295	\$ 177,252	\$ 170,641
CAGR Account	1,739	1,894	9,612	2,813	2,637
Other Funds & Eliminations	(13,489)	(12,074)	(33,914)	(17,229)	(18,048)
Total Operating & Non-operating Expense	\$ 199,460	\$ 165,353	\$ 162,993	\$ 162,836	\$ 155,230
Capital Expenditures	6,098	9,683	7,332	7,242	7,588
Total Expenditures	\$ 205,558	\$ 175,036	\$ 170,325	\$ 170,078	\$ 162,818
Vacancy/Salary Savings Equivalent	-	-	(6.3)	(15.0)	(15.0)

Non-Departmental
Compared to Total Expenditures



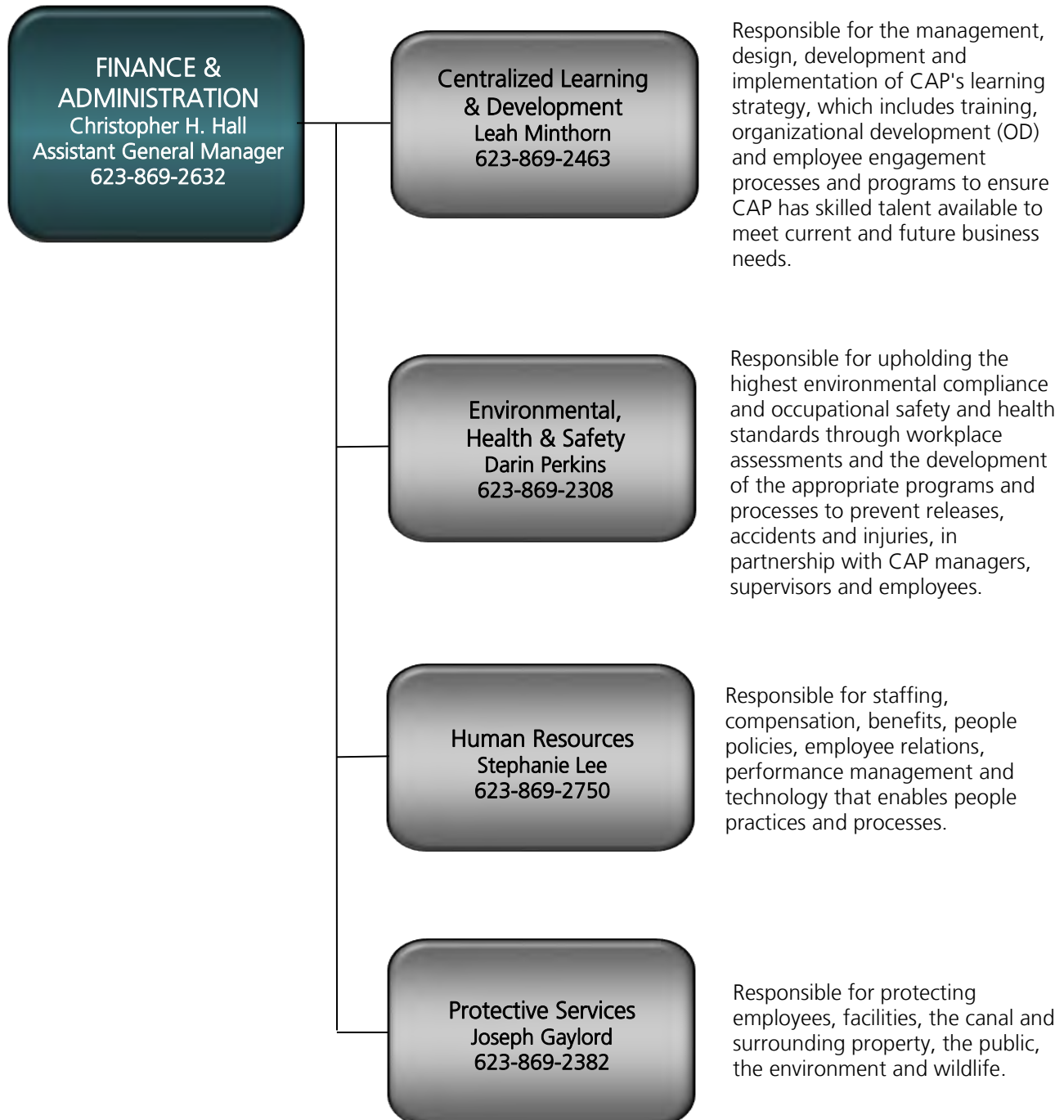


CAP

CENTRAL ARIZONA PROJECT

Employee Services - Assistant GM

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

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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Project Reliability

Maintain high levels of skills and job proficiency among employees

Action Plan: Administer the Apprenticeship Programs and initiate a process with Maintenance to determine crafts and trades training needs of the future to begin putting plans in place to build our own to attract crafts and trades candidates. The expected outcome to maintain an effective apprenticeship program and journeyman level development. Continue to provide, monitor, and assess development and training needs of apprentices and Craft & Trade employees by increasing the knowledge, skills and abilities of all CAP employees through the collaborative development and delivery of targeted training initiatives.

Accomplishment: We have not been able to host as much training as we would like due to continued safety measures. There have been only a couple of classes in light of the current social distancing environment. Focus has been on being able to determine training needs for Safety Week 2021 and develop a schedule for the most training that we can have while maintaining a safe environment for all.

Action Plan: Continue to implement the Strategic Talent Enablement Process through the completion of the Management University's first cohort and the Supervisor Academy's fifth cohort. Reinforce the Leadership Challenge's Five Practices of Exemplary Leadership through communication and training. The expected outcome was to provide employee development processes and programs to improve job performance and capabilities.

Accomplishment: Modules 8-10 have been completed for Cohort 6 of the Supervisor Academy. The feedback survey data from participants demonstrates that the information they are learning is valuable and worthwhile and is being applied to their jobs. Management University participants completed their second in-person class on Management and Leadership. A committee of employees from across the organization has been gathered to develop a plan that recognizes and communicates the values adopted in the new strategic plan. The first year implementation of the new Quarterly Performance Conversations process has been completed.

Employee Services ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
	Maintain high levels of skills and job proficiency among employees	<p>Action Plan: Support a strong safety culture and motivate Employee Services Staff to participate in the monthly safety recognition award program. The expected outcome was to 100% completion of all ES compliance required safety training (with the possible exception of those that might be missed due to unforeseen illness/emergency).</p> <p>Accomplishment: Our overall participation rate in the monthly safety recognition award program remains fairly flat, with just over 50% of employees participating. With respect to compliance-required training, the organization is running at about 85% completion for the year. That percentage is lower than anticipated due to COVID-19 and the inability to conduct most of our in-person training classes.</p>
Project Reliability		<p>Action Plan: Initiate a process with Centralized Learning & Development to review, research and propose changes to the current Performance Management processes for both AETP and CT employees to support the development of HR metrics for data collection. Work in partnership with staff and CLD to identify resources, determine areas of improvement and initiate messaging on proposed changes to processes as necessary.</p> <p>Accomplishment: Created and implemented quarterly conversations for ATP staff to facilitate more consistent recognition and feedback. The quarterly performance conversation also gives more data points for merit increases.</p>
	Maintain CAP as an excellent employer	<p>Action Plan: Maintain Competitive Pay and benefits so we continue to review salary information and conduct biennial compensation surveys, and proactively partner with consultant and third party administrators to ensure best pricing strategies. Based on benchmark data, make changes to pay practices as needed.</p> <p>Accomplishment: Our consultant completed thorough compensation survey using salary data from local and national utilities organizations. Salary grade structures may be changed in 2022 based on this new data that will address compression issues and more clearly communicate CAP pay philosophy.</p>
		<p>Action Plan: Reduce time to hire by 15% through metrics and process improvement. We identified the hindrances delaying hiring process, develop talent pipeline and streamline ways to source candidates.</p> <p>Accomplishment: Reduced time to hire by 29% by collaborating with hiring managers and supervisors and making adjustments to the recruitment process.</p>

Employee Services

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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Action Plan: Develop subcommittee to fully prepare organization for recertification process and expectancies for the 2020 ADOSH VPP recertification audit. CAP successfully acquire VPP recertification in 2020, as well as Total Recordable Case (TRC) and Days Away, Restricted, Transfer (DART) rates below the Arizona averages for the water and sewer utility industry.

Accomplishment: CAP successfully achieved VPP recertification in January 2021. Our TRC and DART rates are both below the Arizona averages for our industry.

Action Plan: In Wellness, identify ways to incentivize effort and identify additional metrics for tracking the success of the program so we can research trends, accomplishments and use data to develop quantifiable metrics to track success of program.

Accomplishment: In 2020, CAP Wellness Administrator, implemented several training classes for employees, and started up Walker Tracker, an online service for tracking steps for a variety of activities. Currently exploring other avenues to engage employees and help them improve their personal health and wellbeing. We have met with CAP HR reps as well as with individuals from Ameriben, Segal, and CVS to explore other data points that might be available to us to help guide our program. Lastly, in May 2021, CAP once again received the Valley's Healthiest Employer award.

Project Reliability

Maintain a safe and secure working environment

Action Plan: Continued improvement in existing waste reduction, management and diversion programs. Develop electronic checklists for completing environmental waste and water sampling events. The expected outcome was to establish a method and considerations to be used and observed when collecting wastewater samples for field screening or laboratory analysis.

Accomplishment: Electronic checklists have been created in Cority for various waste and water sampling needs. Further, Infor preventable maintenance have been developed for waste shipments. Weekly generator inspection preventable maintenance was changed from weekly to monthly.

Continued work on documenting work processes and creating "how to" videos.

In 2020 we had a 39% reduction in hazardous waste shipped off site. We also diverted over 75 tons of waste from landfills.

Employee Services

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
	Develop recruitment strategies to best support CAP's hiring needs	<p>Action Plan: Revise CAP salary grade structure and definition of "midpoint" to clarify misunderstandings about market rate and to ensure CAP salaries are competitive and attractive to outside candidates.</p> <p>Expected Outcome: New salary grade structures effective 1/2022 that are current with market data and education about market rate that creates more realistic expectations regarding salary ranges.</p> <hr/> <p>Action Plan: Review position descriptions to ensure they meet the skills and competencies of the organization.</p> <p>Expected Outcome: All position descriptions will be reflective of current responsibilities and will be reviewed on a set timeline to ensure they are always accurate.</p> <hr/>
Workforce	Engage in innovative professional development opportunities to enhance CAP's workforce	<p>Action Plan: Develop customized roadmap for onboarding new and existing employees and their leaders.</p> <p>Expected Outcome: Determine level of employee engagement and performance.</p> <hr/> <p>Action Plan: Create a coaching community for various learning programs where we can leverage participants newly learned leadership skills to model the way for their peers.</p> <p>Expected Outcome: Increase employee content created and utilized.</p> <hr/>
	Review and update policies and procedures to protect CAP employees	<p>Action Plan: Review all CAP policies to determine creation date, revised date and determine if the policies are being followed and what should be updated.</p> <p>Expected Outcome: Update outdated policies and create a repository of policy history.</p>

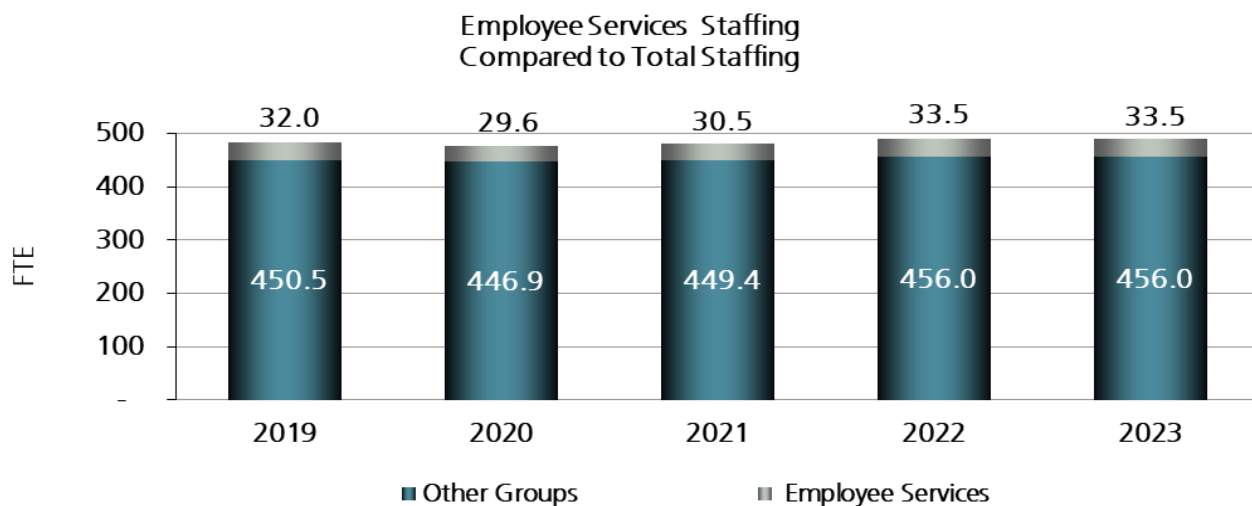
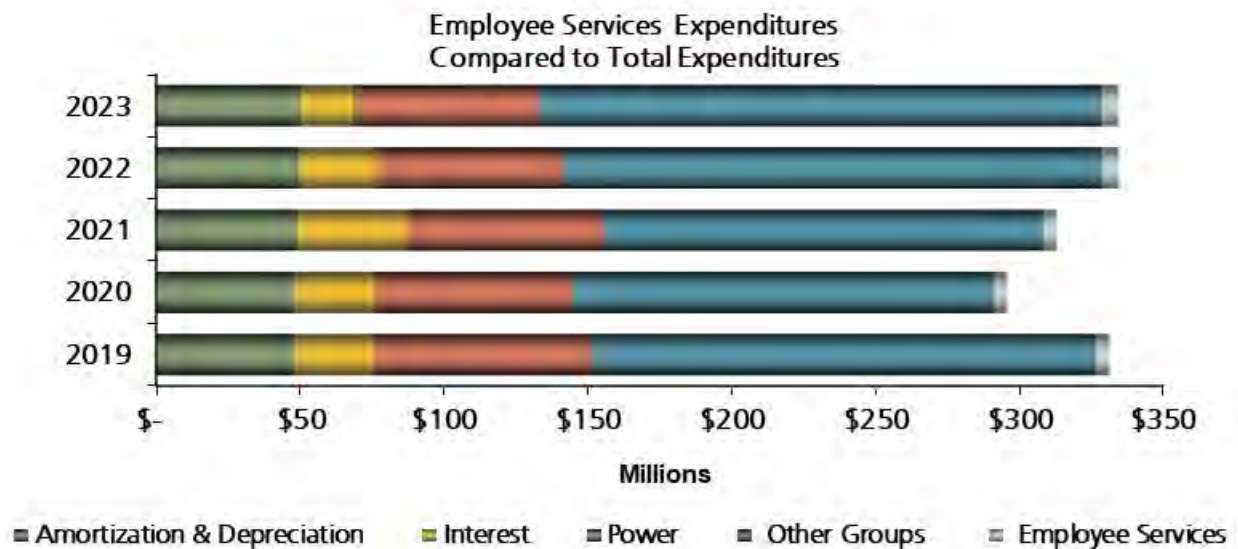


CAP

CENTRAL ARIZONA PROJECT

Employee Services BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 2,579	\$ 2,524	\$ 2,636	\$ 2,941	\$ 3,085
Outside services	1,534	1,545	1,467	2,046	1,966
Materials & supplies	160	145	108	148	150
Other expenses	609	326	458	866	853
Total Operating Expenses	\$ 4,882	\$ 4,540	\$ 4,669	\$ 6,001	\$ 6,054
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,882	\$ 4,540	\$ 4,669	\$ 6,001	\$ 6,054
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 4,882	\$ 4,540	\$ 4,669	\$ 6,001	\$ 6,054
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 4,882	\$ 4,540	\$ 4,669	\$ 6,001	\$ 6,054
Staffing (FTE)	32.0	29.6	30.5	33.5	33.5



Employee Services

CENTRALIZED LEARNING & DEVELOPMENT

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 435	\$ 455	\$ 514	\$ 580	\$ 609
Outside services	22	5	-	144	141
Materials & supplies	34	5	5	8	10
Other expenses	447	232	325	654	638
Total Operating Expenses	\$ 938	\$ 697	\$ 844	\$ 1,386	\$ 1,398
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 938	\$ 697	\$ 844	\$ 1,386	\$ 1,398
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 938	\$ 697	\$ 844	\$ 1,386	\$ 1,398
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 938	\$ 697	\$ 844	\$ 1,386	\$ 1,398
Staffing (FTE)	5.3	5.2	5.7	6.0	6.0

Employee Services

ENVIRONMENTAL, HEALTH & SAFETY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 864	\$ 800	\$ 837	\$ 953	\$ 1,001
Outside services	63	43	69	195	169
Materials & supplies	58	69	34	66	66
Other expenses	111	73	91	103	102
Total Operating Expenses	\$ 1,096	\$ 985	\$ 1,031	\$ 1,317	\$ 1,338
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,096	\$ 985	\$ 1,031	\$ 1,317	\$ 1,338
CAGR Account	-	-	-	-	-
Other Funds and Accounts					
Total Operating Expenses	\$ 1,096	\$ 985	\$ 1,031	\$ 1,317	\$ 1,338
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,096	\$ 985	\$ 1,031	\$ 1,317	\$ 1,338
Staffing (FTE)	10.5	9.4	9.8	11.0	11.0

Employee Services HUMAN RESOURCES

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 558	\$ 538	\$ 545	\$ 627	\$ 655
Outside services	685	770	635	784	783
Materials & supplies	3	1	1	1	1
Other expenses	48	17	34	94	98
Total Operating Expenses	\$ 1,294	\$ 1,326	\$ 1,215	\$ 1,506	\$ 1,537
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,294	\$ 1,326	\$ 1,215	\$ 1,506	\$ 1,537
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 1,294	\$ 1,326	\$ 1,215	\$ 1,506	\$ 1,537
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,294	\$ 1,326	\$ 1,215	\$ 1,506	\$ 1,537
Staffing (FTE)	7.0	6.0	6.0	7.5	7.5

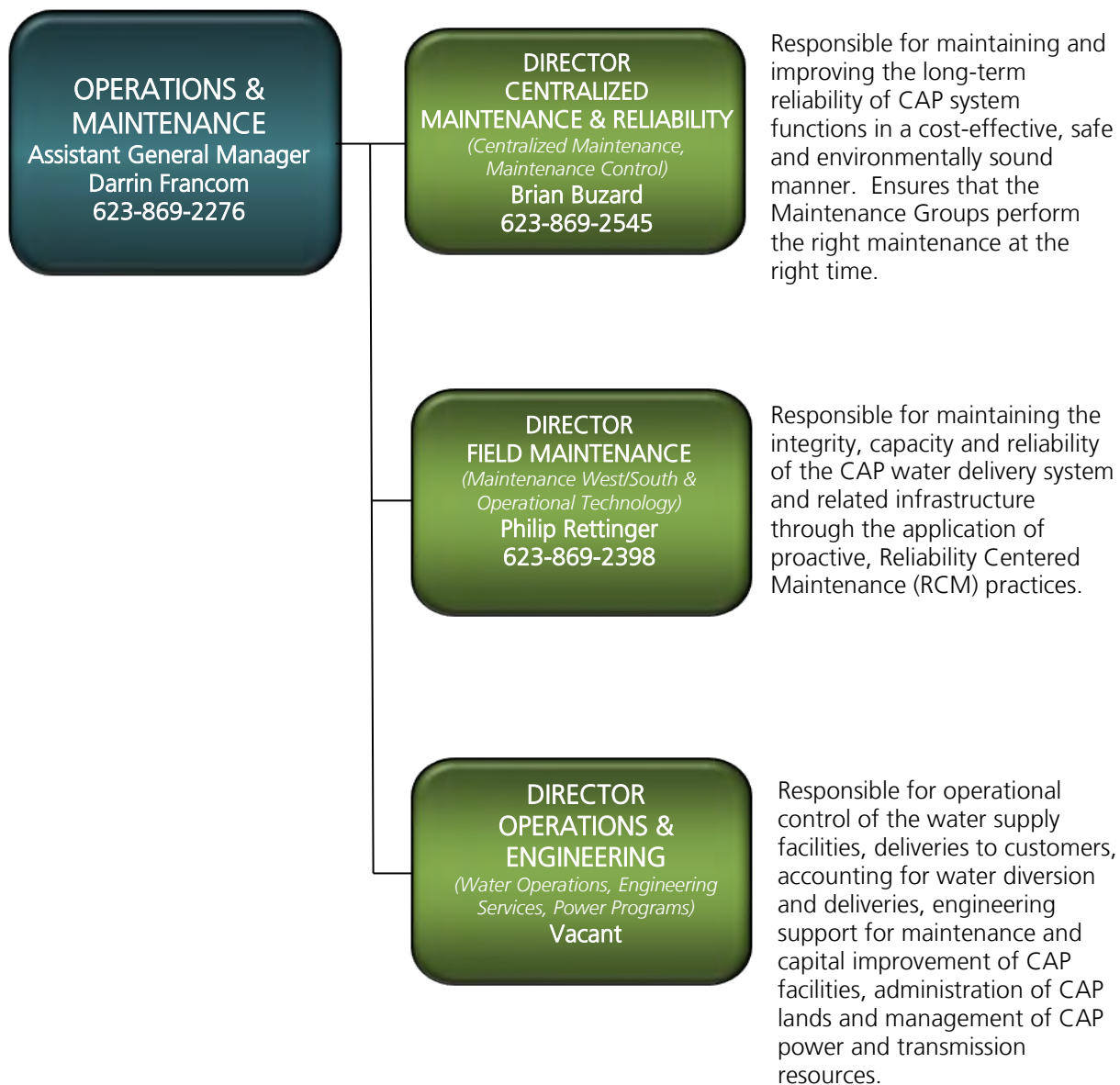
Employee Services PROTECTIVE SERVICES

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 722	\$ 731	\$ 740	\$ 781	\$ 820
Outside services	764	727	763	923	873
Materials & supplies	65	70	68	73	73
Other expenses	3	4	8	15	15
Total Operating Expenses	\$ 1,554	\$ 1,532	\$ 1,579	\$ 1,792	\$ 1,781
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,554	\$ 1,532	\$ 1,579	\$ 1,792	\$ 1,781
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 1,554	\$ 1,532	\$ 1,579	\$ 1,792	\$ 1,781
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 1,554	\$ 1,532	\$ 1,579	\$ 1,792	\$ 1,781
Staffing (FTE)	9.2	9.0	9.0	9.0	9.0



Operations & Maintenance - Assistant GM

Mission: Provides leadership in maintaining and operating the Central Arizona Project to ensure reliability through maintenance, replacement and operational activities



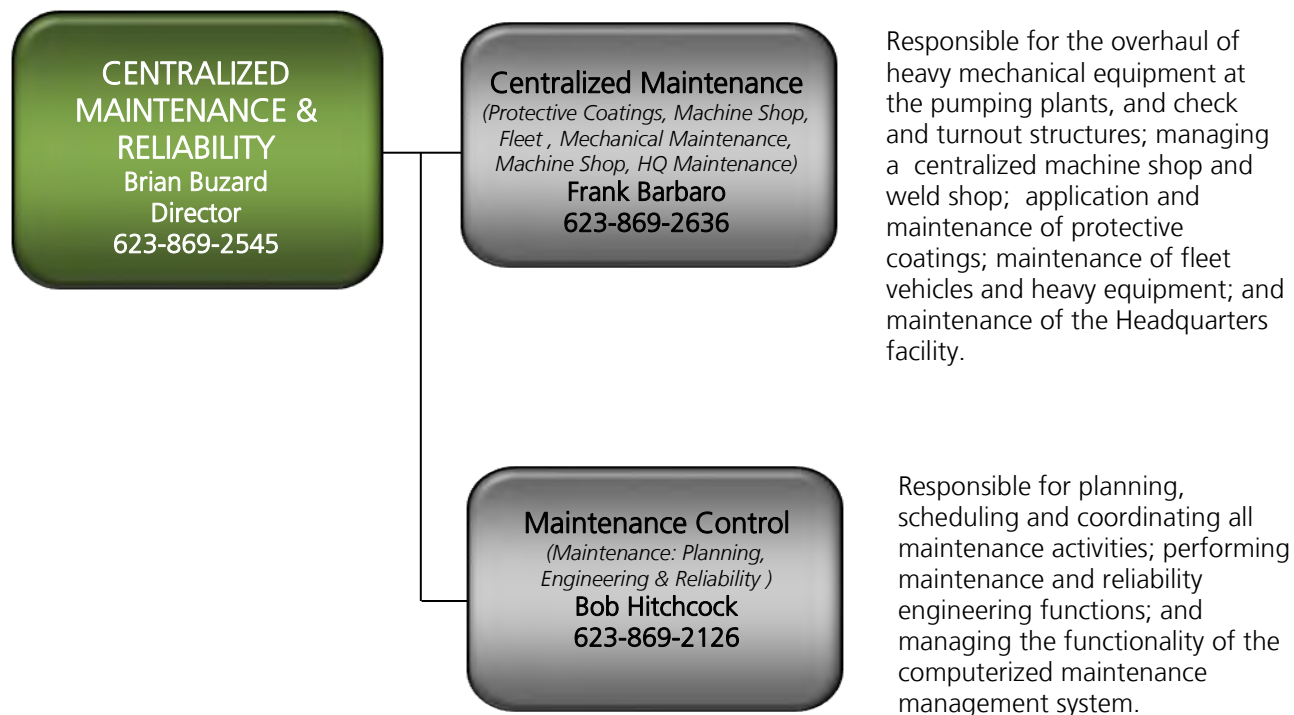
CAP

CENTRAL ARIZONA PROJECT



Centralized Maintenance & Reliability

Mission: The Maintenance Group protects and preserves the integrity and capacity of CAP's water delivery system and related infrastructure through proactive, reliability-based maintenance practices and a continuous improvement management philosophy, while valuing employee input and placing the highest priority on employee safety, health and welfare.



Centralized Maintenance & Reliability

ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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. The expected outcome was to manage actual maintenance expenditures to no more than 2% over and no less than 5% under approved budget.</p> <p>Accomplishment: In 2020, Centralized Maintenance and Reliability underspent by 3.8%, mainly due to pandemic controls and reduction in some outage work. In 2021, Centralized Maintenance and Reliability is forecast to be underspent by ~1% due to continued effects of COVID-19 pandemic controls.</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. The expected outcome was to provide a mechanism for discussion between Operations and Maintenance to align varying priorities, resolve conflicting situations (e.g., outage requests, maintenance needs, system operational constraints,) and ensure adherence to existing processes. The measurement and target of less than 2.00% total forced unit outage.</p> <p>Accomplishment: Operations, Power, Engineering and Maintenance meetings continue monthly. In 2020, the forced outage rate averaged 1.13%. In 2021, the forced outage rate average is forecast to ~1.51%</p>
Project Reliability		<p>Action Plan: Continue to mature our condition assessment capabilities for use on additional critical assets. The expected outcome was to utilize data (SMART), historical information, and subject matter expertise to drive maintenance, modification, and upgrade decisions. Utilize this data to inform the development of 5-10 year major maintenance schedule and a (10+ years) capital improvement plan. The measurement of baseline plan developed for critical assets.</p>
	Effectively Manage, Operate and Maintain CAP Assets	<p>Accomplishment: In 2020, the CM&R Team reorganized to bring Maintenance Information back under Maintenance Control. Completed Life Cycle Cost analysis and Equipment Maintenance Plans for pipelines. In 2021 we updated the 5 year PM and condition assessment process and added measures for performance tracking.</p>
		<p>Action Plan: Design For Reliability, the expected outcome was to ensure reliability and maintainability during operations and maintenance is considered in business needs analysis, in the design and acquisition, installation, modification/upgrade of assets. The expected outcome was to meet the measurement of developing and utilizing reliability and maintainability checklist during design.</p> <p>Accomplishment: On hold for 2020 and 2021 due to pandemic controls.</p>

Centralized Maintenance & Reliability

BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Project Reliability	Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability	<p>Action Plan: Engage the Asset Management/Reliability Excellence community of practice and peer utilities to gain insights and knowledge of "best practices" and implement as appropriate for CAP.</p> <p>Expected Outcome: Conduct a Maintenance/Asset Management assessment in 2022-2023. Participation in Reliability Leadership Institute monthly meetings. Execute Reliability Centered Design (RCD) training.</p>
	Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability	<p>Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages.</p> <p>Expected Outcome: Target \leq 2% total forced unit outage</p>
	Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability	<p>Action Plan: Plan, Forecast, execute, monitor & control the completion of major maintenance work for West and South outage windows.</p> <p>Expected Outcome: Target of \geq 90% Outage Schedule Compliance</p>
		<p>Action Plan: Develop an annual state of the fleet report and present out to OPEM Directors and Managers.</p> <p>Expected Outcome: Produce the annual State of the Fleet report by October 1.</p>



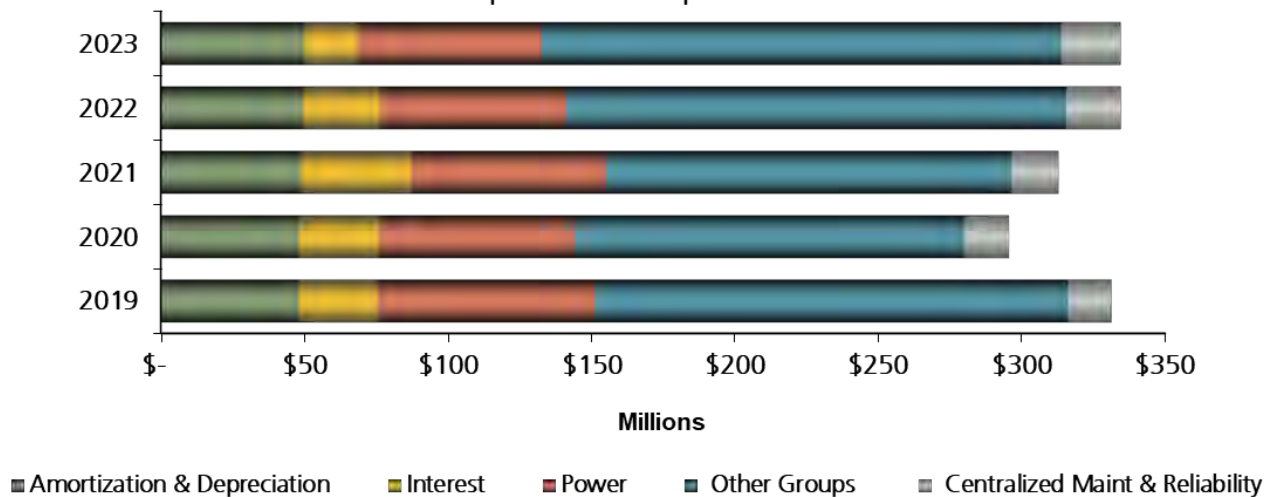
CAP

CENTRAL ARIZONA PROJECT

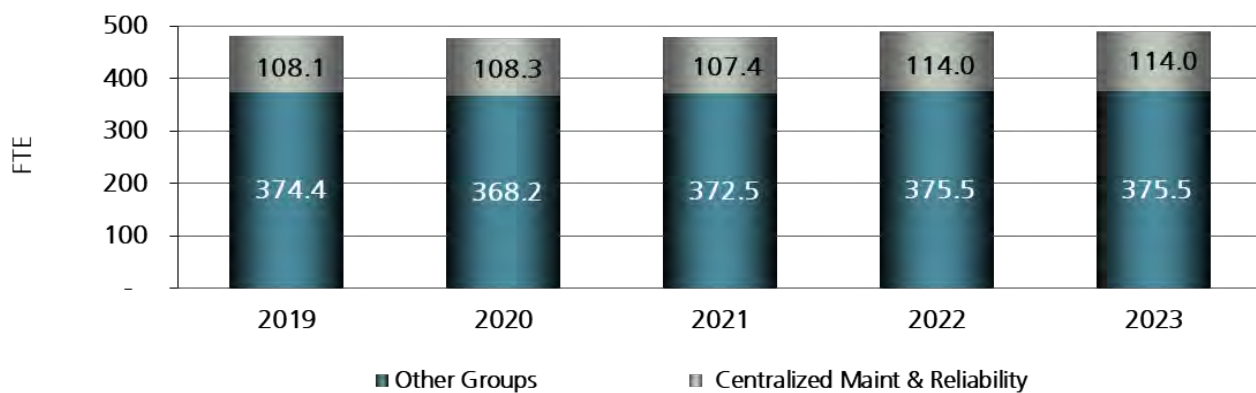
Centralized Maintenance & Reliability BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 9,875	\$ 9,807	\$ 10,175	\$ 11,575	\$ 12,196
Transmission	-	-	-	-	-
Outside services	463	669	750	1,013	836
Materials & supplies	1,718	1,765	1,888	1,919	1,957
Other expenses	1,101	582	902	1,250	1,243
Total Operating Expenses	\$ 13,157	\$ 12,823	\$ 13,715	\$ 15,757	\$ 16,232
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 13,157	\$ 12,823	\$ 13,715	\$ 15,757	\$ 16,232
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 13,157	\$ 12,823	\$ 13,715	\$ 15,757	\$ 16,232
Capital Expenditures	1,973	2,605	2,644	3,346	4,417
Total Expenditures	\$ 15,130	\$ 15,428	\$ 16,359	\$ 19,103	\$ 20,649
Staffing (FTE)	108.1	108.3	107.4	114.0	114.0

Centralized Maint & Reliability Expenditures
Compared to Total Expenditures



Centralized Maint & Reliability Staffing
Compared to Total Staffing



Centralized Maintenance & Reliability

CENTRALIZED MAINTENANCE

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 6,056	\$ 5,947	\$ 6,188	\$ 7,095	\$ 7,467
Outside services	296	472	459	537	560
Materials & supplies	1,626	1,638	1,809	1,827	1,863
Other expenses	847	501	690	872	883
Total Operating Expenses	\$ 8,825	\$ 8,558	\$ 9,146	\$ 10,331	\$ 10,773
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 8,825	\$ 8,558	\$ 9,146	\$ 10,331	\$ 10,773
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 8,825	\$ 8,558	\$ 9,146	\$ 10,331	\$ 10,773
Capital Expenditures	1,884	2,439	2,576	3,167	4,281
Total Expenditures	\$ 10,709	\$ 10,997	\$ 11,722	\$ 13,498	\$ 15,054
Staffing (FTE)	69.0	70.2	68.6	72.0	72.0

Centralized Maintenance & Reliability

MAINTENANCE CONTROL

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 3,819	\$ 3,860	\$ 3,987	\$ 4,480	\$ 4,729
Outside services	167	197	291	476	276
Materials & supplies	92	127	79	92	94
Other expenses	254	81	212	378	360
Total Operating Expenses	\$ 4,332	\$ 4,265	\$ 4,569	\$ 5,426	\$ 5,459
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,332	\$ 4,265	\$ 4,569	\$ 5,426	\$ 5,459
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 4,332	\$ 4,265	\$ 4,569	\$ 5,426	\$ 5,459
Capital Expenditures	89	166	68	179	136
Total Expenditures	\$ 4,421	\$ 4,431	\$ 4,637	\$ 5,605	\$ 5,595
Staffing (FTE)	39.1	38.1	38.8	42.0	42.0

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

Philip Rettinger
Director
623-869-2398

Maintenance South

(BRW-SNX-SNY-BLK,
SGL, BRD-PIC-RED,
TWN-SAN, AQ Maintenance South
Central, AQ Maintenance-South)

Daniel Schuh
623-869-2436

Responsible for maintaining the integrity, capacity and reliability of pumping plants, aqueducts, check and turnout structures, recharge facilities, pipelines, siphons, tunnels, O&M roads, cross-drainage structures, fencing, protective dikes and related facilities of the south area of the CAP water delivery system.

Maintenance West

(Mark Wilmer, BSH, Little HSYIHSY,
Maintenance West, WAD,
AQ Maintenance West,
AQ Maintenance West Central)

Steven Romero
623-869-2870

Responsible for maintaining the integrity, capacity and reliability of pumping plants, aqueducts, check and turnout structures, recharge facilities, pipelines, siphons, tunnels, O&M roads, cross-drainage structures, fencing, protective dikes and related facilities of the west area of the CAP water delivery system.

Operational Technology

(Instrument & Control, Systems Pro-
tective Relays, HVAC, Elect Comm,
Fire, Security)

Jeffrey Guy
623-869-2273

Responsible for the maintenance, testing, calibration and data collection of instrumentation and control systems; HVAC, fire protection and security systems; power transformers, main unit motors and protection systems; responsible for data and telemetry transmission and field radio communications systems. Oversee craft and trades Apprenticeship Program.

Field Maintenance ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Finance	Provide reliable and cost-effective water deliveries	<p>Action Plan: Manage actual maintenance expenditures to no more than 2% over and no less than 5% under approved budget.</p> <p>Accomplishment: Maintenance expenditures were managed within 2020 and 2021 during pandemic conditions. This created a need to deviate from the established maintenance budgets and work plans to promote safety and minimize employee exposure. Therefore, maintenance expenditures were below the historical norm of 2% over and 5% under budget.</p>
	Provide reliable and cost-effective water deliveries	<p>Action Plan: Action Plan: Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. The expected outcome was to maintain a forced outage rate at or below 2%.</p> <p>Accomplishment: Operational reliability remained high and forced outage rates were maintained below 2% for 2020 and 2021.</p>
Project Reliability		<p>Action Plan: Oversee Tactical Asset Management teams (TAM) to drive defect elimination while fostering employee participation. The expected outcome was to reduce backlog volume and age.</p> <p>Accomplishment: Tactical Asset Management Team meetings and activities were suspended during 2020 and part of 2021 due to pandemic conditions to promote safety and minimize employee exposure. The meeting structure, agenda, and focus were reviewed and new data reporting were developed for the relaunch of these meetings which occurred in later 2021. Limited manpower and work plans based on the pandemic have increased backlog during 2020 and 2021. Work plans to correct this situation were developed and are being phased in over 2021 and 2022.</p>
	Continue to address aging infrastructure	<p>Action Plan: Action Plan: Oversee the Strategic Asset Management Teams to build long range maintenance plans and consistent maintenance strategies across like asset classes. The expected outcome was outage Schedule Performance \geq 85%.</p> <p>Accomplishment: Strategic Asset Management teams were utilized as part of the development of the 2022-2023 biennial budget which helped to ensure consistent maintenance strategies were used across like assets. Schedule performance for major outage windows was maintained at greater than 85%.</p>

Field Maintenance ACCOMPLISHMENTS

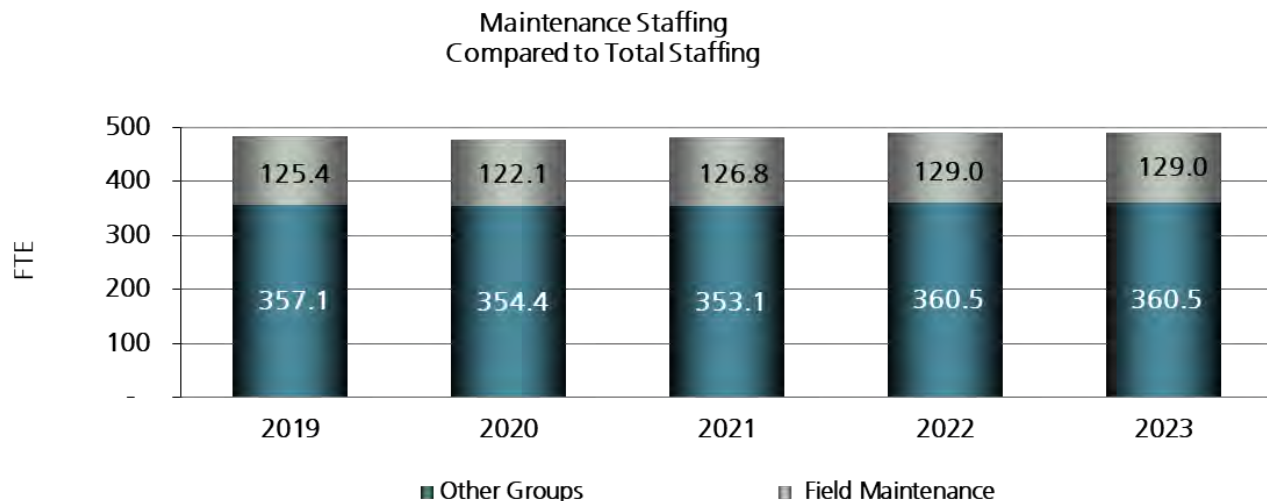
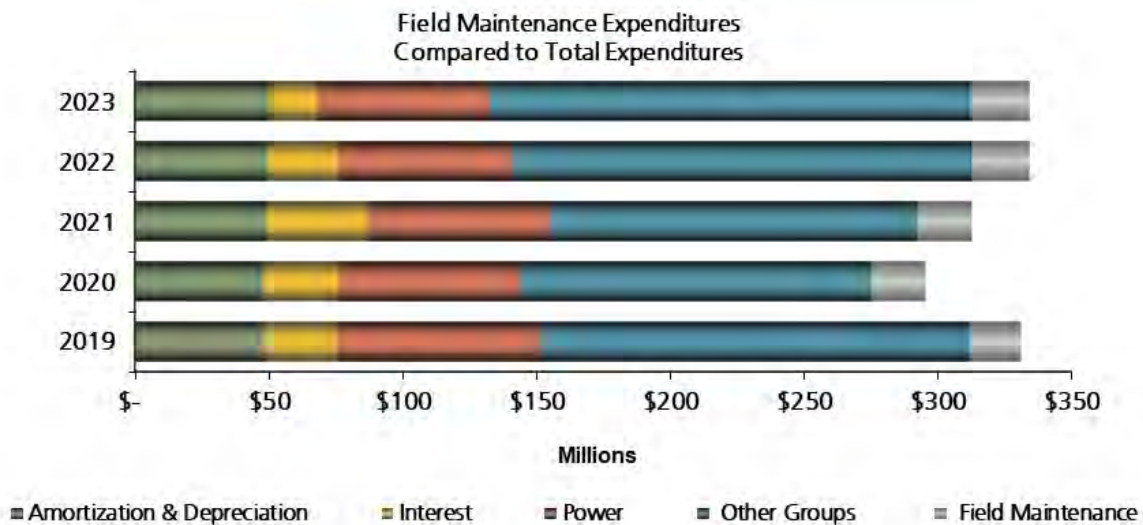
Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Project Reliability		<p>Action Plan: Facilitate and promote Board field visits to critical CAP assets to foster direct knowledge of infrastructure capacity and conditions. The expected outcome was to provide at least two opportunities for Board Members to visit CAP assets annually.</p> <p>Accomplishment: Prior to March 2020 Board tours were made readily available and scheduled. During pandemic conditions these tours were suspended for safety purposes. As conditions changed, access to Field Maintenance facilities were reopened.</p>
	Achieve industry best maintenance practices	<p>Action Plan: Continue to improve the use of Work Order failure codes in order to provide accurate failure information for Reliability Engineers. The expected outcome was to field personnel report failure codes on all non-preventative maintenance PM work orders.</p> <p>Accomplishment: Work order failure codes have been incorporated as a mandatory field for all work order entries. Entries are reviewed by supervision and planning as part of the work order close out process. This failure data is now available for Reliability Engineering analysis.</p>
	Maintain a safe and secure working environment	<p>Action Plan: Maintain CAP's Voluntary Protection Program (VPP) Star Status certification with the Arizona Division of Occupational Safety and Health (ADOSH) . The expected outcome was to ADOSH recertification in the Spring 2020.</p> <p>Accomplishment: CAP achieved VPP Star Status in Q1 of 2021 after a delay created by pandemic conditions.</p>

Field Maintenance BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Finance	Manage capital, operations, and maintenance budgets, debt, revenues, tax rates, and reserves effectively and transparently	<p>Action Plan: Manage and coordinate budgetary resources within and across each Field Maintenance divisions.</p> <p>Expected Outcome: Budget will be managed within + 2% and -5% of the approved budget.</p>
Workforce	Review and update policies and procedures to protect employees	<p>Action Plan: Review and update Hazardous Energy Control Program and Electrical Safety Program as per policy review frequency. Ensure proper arc flash labeling is completed within study areas completed by Engineering. Publish a personal protective grounding manual.</p> <p>Expected Outcome: HECPP and ESP are reviewed as per schedule. Arc flash labeling is applied for all study areas. Personal Protective Grounding Manual is published.</p>
Project Reliability	Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability	<p>Action Plan: Create compliance for the scheduled completion of asset classes for major frequency PMs that leads to an equipment condition assessment.</p> <p>Expected Outcome: Completion of greater than 90% schedule compliance for these PMs.</p> <p>Action Plan: Ensure that needed work execution deliverables are consistently received as part of capital and replacement in kind activities turnover processes.</p> <p>Expected Outcome: Develop internal maintenance checklists and processes and ensure they are utilized for new project turnovers.</p>

Field Maintenance BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 10,602	\$ 10,392	\$ 11,147	\$ 12,598	\$ 13,352
Outside services	2,778	1,594	2,296	2,069	2,154
Materials & supplies	4,426	4,723	5,127	5,316	5,423
Other expenses	917	357	709	905	897
Total Operating Expenses	\$ 18,723	\$ 17,066	\$ 19,279	\$ 20,888	\$ 21,826
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 18,723	\$ 17,066	\$ 19,279	\$ 20,888	\$ 21,826
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 18,723	\$ 17,066	\$ 19,279	\$ 20,888	\$ 21,826
Capital Expenditures	939	3,244	921	919	354
Total Expenditures	\$ 19,662	\$ 20,310	\$ 20,200	\$ 21,807	\$ 22,180
Staffing (FTE)	125.4	122.1	126.8	129.0	129.0



Field Maintenance MAINTENANCE SOUTH

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 3,761	\$ 3,539	\$ 3,931	\$ 4,458	\$ 4,675
Outside services	1,543	807	1,169	788	908
Materials & supplies	1,723	1,513	1,890	1,741	1,857
Other expenses	373	105	240	251	278
Total Operating Expenses	\$ 7,400	\$ 5,964	\$ 7,230	\$ 7,238	\$ 7,718
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 7,400	\$ 5,964	\$ 7,230	\$ 7,238	\$ 7,718
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 7,400	\$ 5,964	\$ 7,230	\$ 7,238	\$ 7,718
Capital Expenditures	122	220	174	40	52
Total Expenditures	\$ 7,522	\$ 6,184	\$ 7,404	\$ 7,278	\$ 7,770
Staffing (FTE)	44.4	43.4	45.3	46.0	46.0

Field Maintenance MAINTENANCE WEST

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 3,762	\$ 3,711	\$ 3,916	\$ 4,446	\$ 4,706
Outside services	1,045	526	876	780	823
Materials & supplies	2,191	2,615	2,586	2,958	2,894
Other expenses	211	79	162	244	218
Total Operating Expenses	\$ 7,209	\$ 6,931	\$ 7,540	\$ 8,428	\$ 8,641
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 7,209	\$ 6,931	\$ 7,540	\$ 8,428	\$ 8,641
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 7,209	\$ 6,931	\$ 7,540	\$ 8,428	\$ 8,641
Capital Expenditures	513	267	213	55	13
Total Expenditures	\$ 7,722	\$ 7,198	\$ 7,753	\$ 8,483	\$ 8,654
Staffing (FTE)	43.6	44.1	44.6	45.0	45.0

Field Maintenance OPERATIONAL TECHNOLOGY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 3,079	\$ 3,142	\$ 3,300	\$ 3,694	\$ 3,971
Outside services	190	261	251	501	423
Materials & supplies	512	595	651	617	672
Other expenses	333	173	307	410	401
Total Operating Expenses	\$ 4,114	\$ 4,171	\$ 4,509	\$ 5,222	\$ 5,467
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,114	\$ 4,171	\$ 4,509	\$ 5,222	\$ 5,467
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 4,114	\$ 4,171	\$ 4,509	\$ 5,222	\$ 5,467
Capital Expenditures	304	2,757	534	824	289
Total Expenditures	\$ 4,418	\$ 6,928	\$ 5,043	\$ 6,046	\$ 5,756
Staffing (FTE)	37.4	34.6	36.9	38.0	38.0

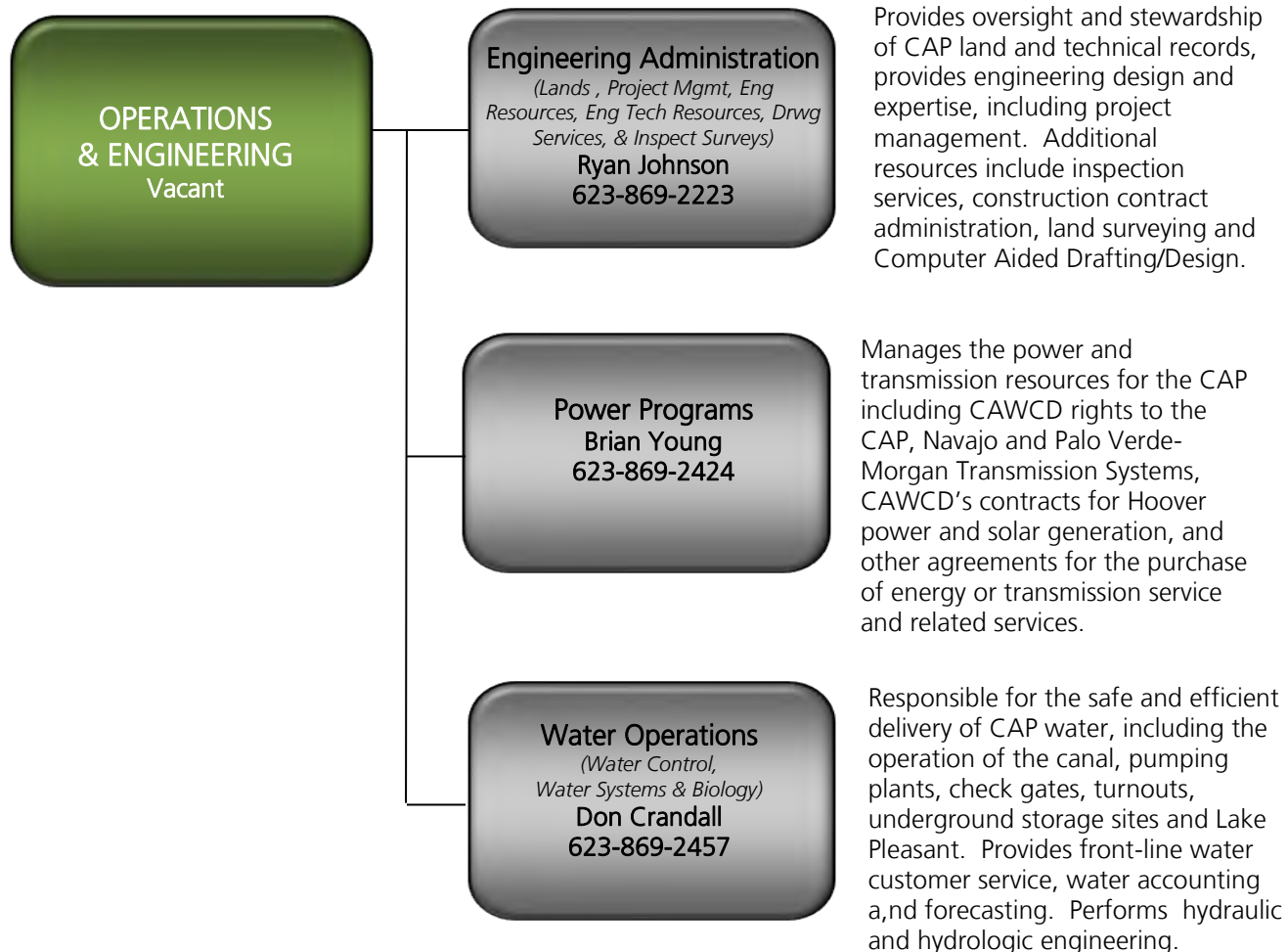


CAP

CENTRAL ARIZONA PROJECT

Operations & Engineering

Mission: The Operations and Engineering Group manages the operation of the CAP water delivery system, designs and oversees infrastructure improvements and new construction and manages CAP power and transmission resources.



Operations & Engineering ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Leadership & Public Trust	Continually enhance Board members' understanding of the issues impacting water, power and operations.	<p>Action Plan: Continue to develop data and reporting products that provide transparency to CAP Operations and the management of the CAP's Colorado River water supply. The expected outcome was to revise CAP Operations section of the CAP website. Improvements to the content and layout information related to operational forecasts, water delivery data, Annual Operating Plan and water quality information.</p> <p>Accomplishment: Revisions to the Water Operations section of the CAP website were released in 2021. The new Aqua-Portal website has been configured to allow CAP customers to access and analyze real time water quality data and historical laboratory analysis of CAP water samples. This new customer tool was first demonstrated at the August 2021 Water Users Meeting and is now live.</p>
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Action Plan: Balance the Engineering Services Department focus to effectively accomplish both the Capital Improvements Plan and the support of items from Maintenance. The expected outcome was high priority work orders are identified and accomplishments tracked in alignment with the agreements and prioritization process conducted with the Maintenance Department. The capital projects are managed in alignment with the capital budget, with a target of less than 10% variance.</p> <p>Accomplishment: Long Range Work Identification process developed across Engineering, Maintenance, and Operations. In conjunction with this process, a Risk Register is now used to track priority work for the Capital Improvement Plan based upon asset criticality and asset health. A defined scoring system is used to ensure resources are utilized for valid work and at the right time. Pandemic-related delays prevented spending to stay within variance targets in 2020, but work in 2021 was successfully re-planned and managed within budget variance targets.</p>
Project Reliability	Continue to address aging infrastructure	<p>Action Plan: Continue to implement asset management objectives including improving the medium and long term planning processes for operations, capital projects, and power to provide input into the Long Range Financial Plan. The expected outcome was the Long Range Project Plan, Long Range Energy Rate and Annual Operation Plan are developed and are effective inputs into the Long Range Financial Plan.</p> <p>Accomplishment: Maintenance, Engineering, and Operations are using the Long Range Work Identification process and Capital Project Risk Register to prioritize work over a 10-year horizon. Annual condition assessment for physical assets regularly inform this process, which in turn provides work requirements for advisory expenses in the LRFP.</p>

Operations & Engineering ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
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. The expected outcome was to divert CAP's full entitlement less water that is targeted for protection of Lake Mead, including DCP contributions along with any forbearance agreements that CAP has entered into for the years of 2020 and 2021.</p> <p>Accomplishment: CAP diverted its full Colorado River Water entitlement, less DCP contributions in accordance with the Lower Basin Drought Contingency Plan (DCP), the Arizona DCP and Arizona Intentionally Created Surplus (ICS) plans for 2020 and 2021.</p>
Power	Secure reliable, sustainable, cost-effective generation resources	<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. The expected outcome was to provide at least three updates to the Board annually to keep them informed on relevant energy developments and apprised of impact to water rates.</p> <p>Accomplishment: At least three times per year, the Finance, Audit, and Power Committee was provided an update on current year energy actual prices to date, forecasted pumping energy rate for the full year, and a status of pre-purchasing of energy for the next two to three years.</p> <p>Action Plan: Develop and execute options for CAP's energy portfolio that comply with the Board's Risk guidance and support steady and efficient water rates. The expected outcome was to risk to energy costs and the associated impact to water rates is monitored and action is taken to purchase power resources when there are favorable rates that sustain or reduce published rates.</p> <p>Accomplishment: For both 2020 and 2021 the Power Programs Department stayed well informed of risks and opportunities within the broader energy markets. Utilizing our ability to shift diversion pumping to times most advantageous to our pumping energy rate, careful planning, selective selling of pre-purchased energy, and use of day-ahead purchases of low "Duck-Curve" energy, the pumping Energy Rate came in below the published rate for both 2020 and 2021.</p>

Operations & Engineering

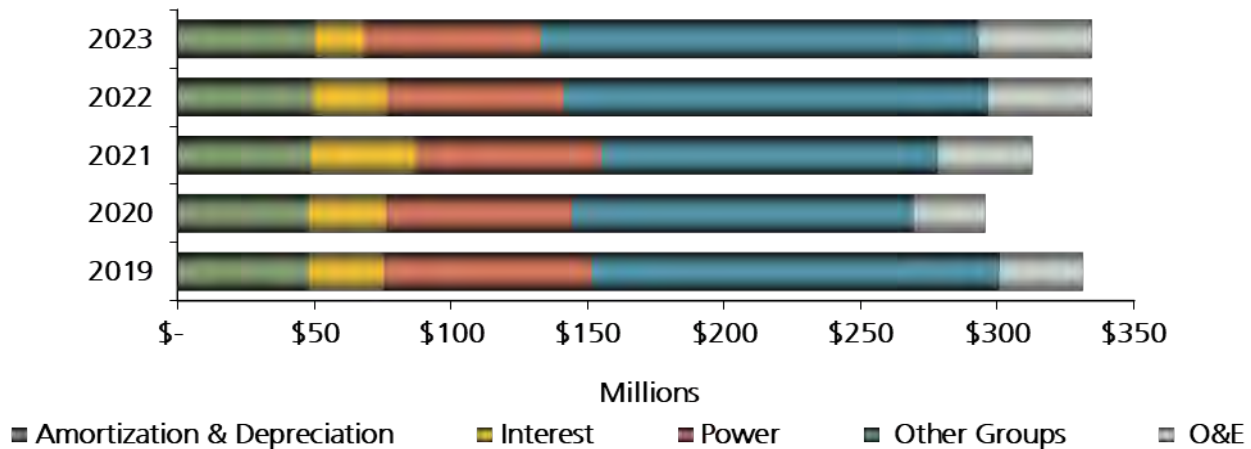
BUSINESS GOALS

Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Stewardship and Sustainability	Evaluate and consider the relevant environmental impacts of moving non-Project water	<p>Action Plan: CAWCD System Water Quality Model has been completed and calibrated.</p> <p>Expected Outcome: Model has been peer reviewed and calibrated with historic data.</p>
Power	Take advantage of developments in energy efficiency and renewable resources, including storage	<p>Action Plan: Incorporate renewable resources and battery storage into the CAP portfolio when economically viable in relation to market purchases.</p> <p>Expected Outcome: Semiannual report to the Board/FAP on total utilized renewable resources (renewable resources compared to non-renewable).</p>
	Minimize CAP's carbon footprint, consistent with CAP's mission	<p>Action Plan: Evaluate and implement as appropriate effective methods to reduce the carbon footprint, while considering the impact to water rates and reliability.</p> <p>Expected Outcome: Yearly evaluation of the CAP carbon footprint for pumping energy use developed, trended, and reported on.</p>
Project Reliability	Implement and improve CAP's strategic asset management program to ensure long-term infrastructure viability	<p>Action Plan: Ensure that operations, maintenance and replacement activities for CAP assets are coordinated and prioritized within a risk register based on the condition of the asset and the consequence of a failure.</p> <p>Expected Outcome: Develop and implement a process/application to measure PM Compliance on 5 year Condition Assessments. After a baseline is established, set annual compliance target.</p>

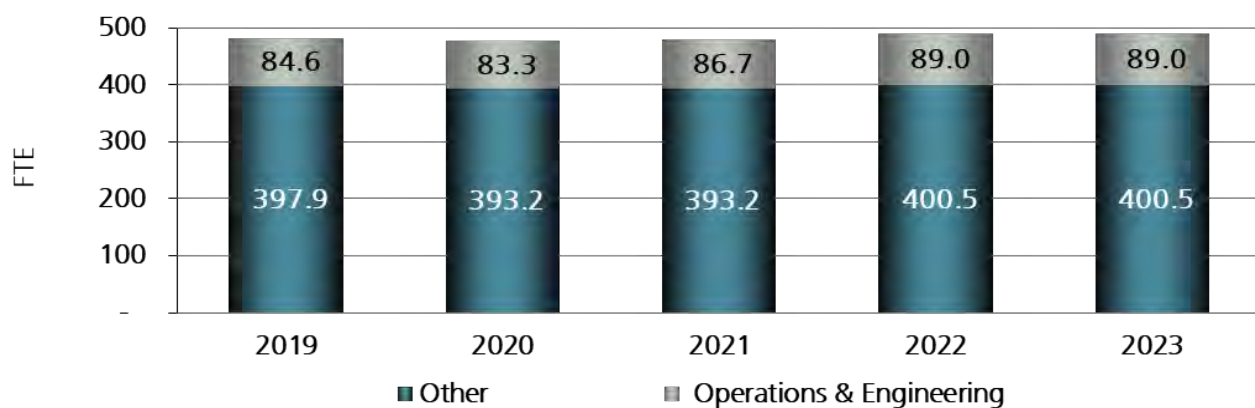
Operations & Engineering BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 6,734	\$ 6,589	\$ 6,817	\$ 7,159	\$ 7,750
Outside services	7,829	2,986	6,147	5,161	4,061
Materials & supplies	153	175	173	261	254
Water for recharge	-	-	-	-	-
Other expenses	724	641	655	782	799
Total Operating Expenses	\$ 15,440	\$ 10,391	\$ 13,792	\$ 13,363	\$ 12,864
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 15,440	\$ 10,391	\$ 13,792	\$ 13,363	\$ 12,864
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 15,440	\$ 10,391	\$ 13,792	\$ 13,363	\$ 12,864
Capital Expenditures	14,985	15,842	20,576	24,535	28,432
Total Expenditures	\$ 30,425	\$ 26,233	\$ 34,368	\$ 37,898	\$ 41,296
Staffing (FTE)	84.6	83.3	86.7	89.0	89.0

Operations & Engineering Expenditures
Compared to Total Expenditures



Operations & Engineering Staffing
Compared to Total Staffing



Operations & Engineering ENGINEERING SERVICES

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 4,213	\$ 3,841	\$ 4,038	\$ 4,205	\$ 4,633
Outside services	7,076	1,435	4,691	4,081	2,853
Materials & supplies	111	87	69	102	98
Other expenses	193	79	141	219	202
Total Operating Expenses	\$ 11,593	\$ 5,442	\$ 8,939	\$ 8,607	\$ 7,786
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 11,593	\$ 5,442	\$ 8,939	\$ 8,607	\$ 7,786
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 11,593	\$ 5,442	\$ 8,939	\$ 8,607	\$ 7,786
Capital Expenditures	14,985	15,816	20,533	24,475	28,394
Total Expenditures	\$ 26,578	\$ 21,258	\$ 29,472	\$ 33,082	\$ 36,180
Staffing (FTE)	61.8	59.0	61.7	63.0	63.0

Operations & Engineering POWER PROGRAMS

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 287	\$ 368	\$ 308	\$ 270	\$ 284
Outside services	45	87	119	75	75
Materials & supplies	-	-	1	1	1
Water for recharge					
Other expenses	6	2	18	28	28
Total Operating Expenses	\$ 338	\$ 457	\$ 446	\$ 374	\$ 388
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 338	\$ 457	\$ 446	\$ 374	\$ 388
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 338.0	\$ 457	\$ 446	\$ 374	\$ 388
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 338	\$ 457	\$ 446	\$ 374	\$ 388
Staffing (FTE)	2.4	3.0	2.5	2.0	2.0

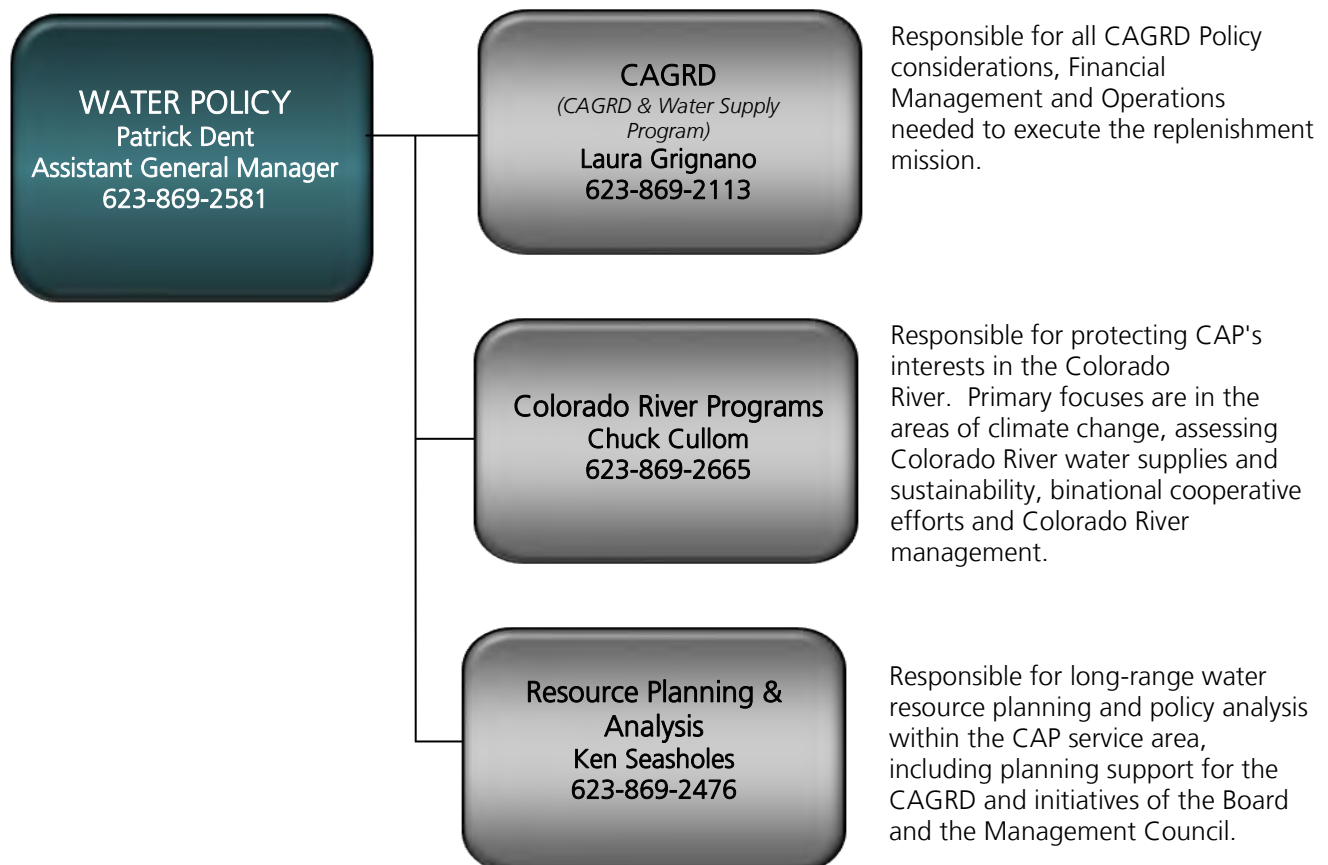
Operations & Engineering WATER OPERATIONS

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 2,234	\$ 2,380	\$ 2,471	\$ 2,684	\$ 2,833
Outside services	708	1,464	1,337	1,005	1,133
Materials & supplies	42	88	103	158	155
Other expenses	525	560	496	535	569
Total Operating Expenses	\$ 3,509	\$ 4,492	\$ 4,407	\$ 4,382	\$ 4,690
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 3,509	\$ 4,492	\$ 4,407	\$ 4,382	\$ 4,690
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 3,509	\$ 4,492	\$ 4,407	\$ 4,382	\$ 4,690
Capital Expenditures	-	26	43	60	38
Total Expenditures	\$ 3,509	\$ 4,518	\$ 4,450	\$ 4,442	\$ 4,728
Staffing (FTE)	20.4	21.3	22.5	24.0	24.0



Water Policy- Assistant GM

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 CAGRDR.



Water Policy ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Action Plan: Continue to meet the CAGRD's long-term replenishment obligations. The expected outcome was to continue to acquire water supplies to meet replenishment obligations, as outlined in the CAGRD Water Supply Program's updated acquisition strategy and implement the GRIC water supply acquisition agreement.</p> <p>Accomplishment: Successfully obtained necessary regulatory approvals to facilitate implementation of the GRIC GRWS water acquisition beginning in 2020. Delivered 57,611 AF in 2020 to meet obligations and to accrue LTSCs. In 2021, will complete the update to CAGRD Water Acquisition Strategy including a focus on mitigation of shortage impacts to the CAGRD portfolio. In 2021, will complete contracting for 18,185 AF of reallocated NIA water.</p>
	Review CAGRD status as compared to projections in the Plan of Operations	<p>Action Plan: Continue to prepare annual operations report detailing current enrollment to corresponding replenishment obligations as a supplement to the annual report filed with ADWR. The expected outcome was for the Annual Operations Report (AOR) to have been prepared for each year and transmitted to ADWR.</p> <p>Accomplishment: Successfully completed and transmitted 2019 AOR to ADWR in 2020; will complete the 2020 AOR and transmit to ADWR in 2021. Completed 2019 Mid-Plan Review and presented findings to CAGRD Committee in 2020. Continued quarterly reports on enrollment and activations to CAGRD Committee in 2020 and 2021.</p>
Water Supply	Optimize reliability and sustainability of CAP water supply	<p>Action Plan: Actively influence, participate in and implement Colorado River management decisions. The expected outcome was to 1) Prepare for and participate in reconsultation under the 2007 Guidelines (to extend/modify/renew the Guidelines beyond 2026). In addition, CAWCD management and staff are members of key Basin technical, policy and negotiation groups. 2) Implement interstate and intrastate DCP agreements.</p> <p>Accomplishment: CAWCD staff directly participated in key components of the Basin States collaborative process. The Arizona Reconsultation Committee was established in 2020 as the framework for reconsultation of the 2007 Guidelines for Arizona. ADWR and CAWCD serve as co-chairs for the Committee. The CAWCD Board approved agreements and policies in support of Reclamation's DCP commitments [242 Well field agreement and system conservation rate policy]. CAWCD is implementing Arizona DCP mitigation agreements and commitments in preparation of Tier 1 Shortage conditions forecasted for 2022.</p>

Water Policy ACCOMPLISHMENTS

Key Result Area	Strategic Objectives	2020 / 2021 Action Plans & Accomplishments
	Implement Recovery Plan	<p>Action Plan: Evaluate potential need for treatment works to implement recovery operations. The expected outcome was to have new water quality considerations included in all Direct Recovery Projects.</p> <p>Accomplishment: Collaborated with stakeholders and Reclamation to develop a Water Quality Guidance Document for non-Colorado River supplies introduced into the CAP system, including direct recovery. Geophysical evaluations of direct recovery were performed in the Hassayampa sub-basin, but the 2021 Update of the Joint Recovery Plan de-emphasized near-term direct recovery in favor of expanded independent recovery.</p>
Water Supply	Complete and implement Water Wheeling Agreements	<p>Action Plan: Complete and implement a standard form wheeling agreement and associated firming and wheeling contracts. The expected outcome was for CAWCD staff to continue to implement the program for wheeling non-Project Water, including associated agreements.</p> <p>Accomplishment: Staff worked closely with Reclamation and individual parties on NEPA compliance and related implementation steps for three groundwater importation projects that are proposed in the Harquahala sub-basin. The City of Scottsdale and Vidler Water Company each have projects that involve pumping and wheeling a few thousand acre-feet per year. The third—the “Harquahala Valley Water Project”—is a multi-phase project involving the majority of the landowners in the Harquahala Valley Irrigation District. At full capacity that project is expected to have a capacity of more than 50,000 acre-feet per year.</p>
	New water supplies for the CAP service area	<p>Action Plan: Assess the capacity of existing CAP infrastructure to facilitate water wheeling. The expected outcome is that an initial system improvement project for wheeling had been identified for submittal to BOR.</p> <p>Accomplishment: In January 2020 the Board established a \$5 million System Use Reserve for initial funding of early expenses. Phase one of the System Use Agreement Operational Capability Study was completed. The study identified lining and other improvements to the western portion of the CAP System and developed initial cost estimates. Discussions on operational capability were initiated with Reclamation.</p>

Water Policy

BUSINESS GOALS

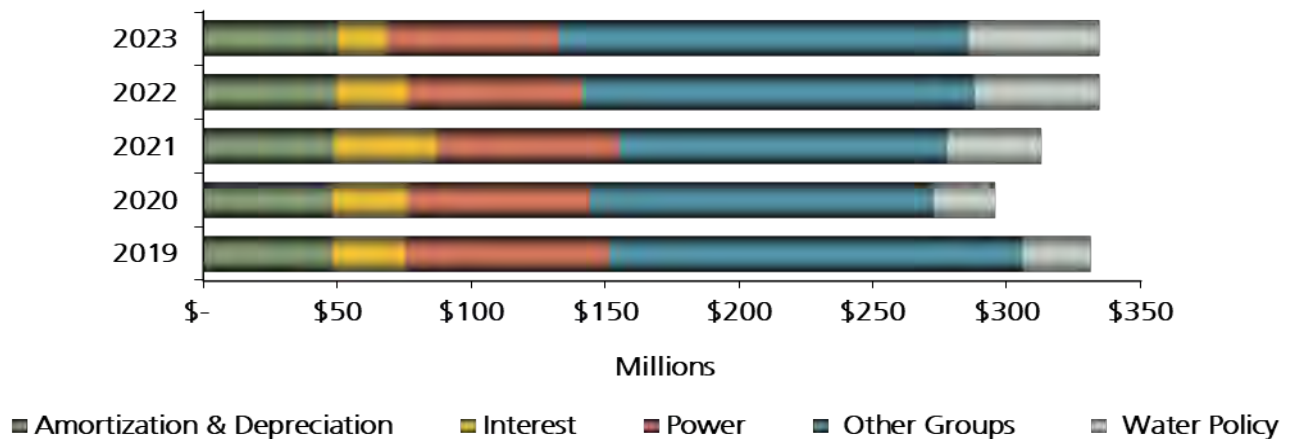
Key Result Area	Strategic Issue	2022 / 2023 Action Plans & Expected Outcomes
Groundwater Replenishment	Responsibly meet CAP's statutory replenishment obligation	<p>Action Plan: Prepare and mitigate for shortage impacts to CAGR.</p> <p>Expected Outcome: Evaluate acquiring long-term, higher priority water supplies less susceptible to shortage. Provide context for new acquisitions in terms of existing supply portfolio and shortage impact scenarios.</p>
	Ensure continued effective management, reasonable pricing, and financial viability of CAGR	<p>Action Plan: Begin to develop the 2025 Plan of Operation.</p> <p>Expected Outcome: Complete New Member Land and Member Service Area (MSA) Projections in CAP: Service Area Model and develop draft Plan of Operation Sections for Review.</p>
	Address impacts from Colorado River drought and overallocation	<p>Action Plan: Analyze a range of impacts of drought and overallocation to the CAP water supply and water users.</p> <p>Expected Outcome: Conduct analysis and prepare results of analyses to regularly report to CAWCD Board and stakeholders.</p> <p>Action Plan: Co-lead Arizona Reconsultation Committee process and participate in the Reconsultation of the 2007 Guidelines for the Colorado River.</p> <p>Expected Outcome: CAWCD will actively participate directly in the Reclamation, Basin States and Arizona Reconsultation processes.</p>
Water Supply	Address impacts from Colorado River drought and overallocation	<p>Action Plan: Support implementation of the Drought Contingency Plan including management of CAWCD mitigation resources.</p> <p>Expected Outcome: Effectively deploy CAWCD mitigation resources and successfully implement appropriate Drought Contingency Plan agreements and commitments.</p>
	Work collaboratively in the recovery of water stored by the Arizona Water Banking Authority	<p>Action Plan: Continue coordination with AWBA and ADWR and stakeholders on recovery planning and infrastructure.</p> <p>Expected Outcome: Continue to participate as an active member of the Recovery Planning Advisory Group.</p>

Water Policy

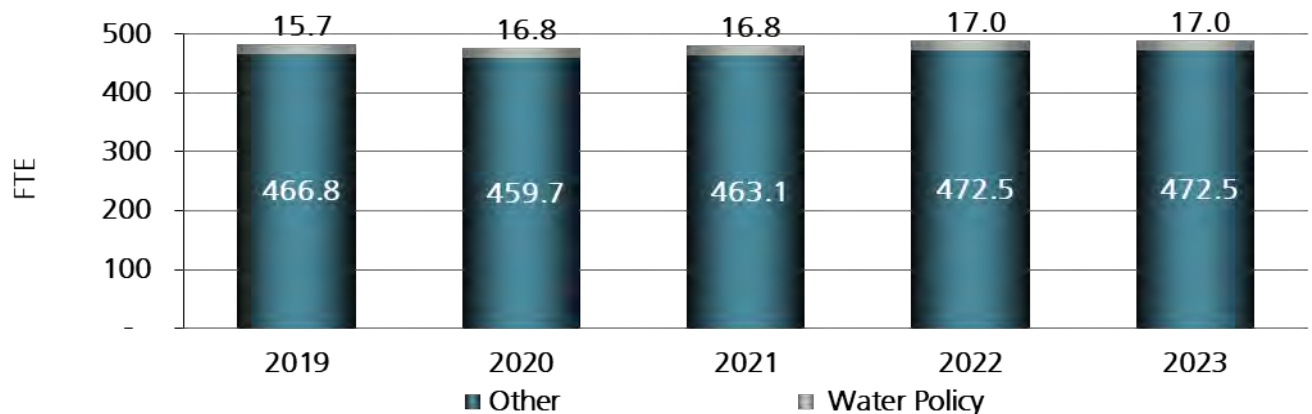
BUDGET SUMMARY

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 1,432	\$ 1,590	\$ 1,596	\$ 1,737	\$ 1,821
Outside services	7,335	5,198	3,401	27,927	28,658
Water for recharge	13,248	12,061	11,623	13,179	14,827
Materials & supplies	1	2	1	1	1
Other expenses	3,350	4,033	18,546	3,625	3,618
Total Operating Expenses	\$ 25,366	\$ 22,884	\$ 35,167	\$ 46,469	\$ 48,925
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 11,203	\$ 7,200	\$ 6,439	\$ 31,685	\$ 32,372
CAGR Account	14,163	15,684	28,728	14,784	16,553
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 25,366	\$ 22,884	\$ 35,167	\$ 46,469	\$ 48,925
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 25,366	\$ 22,884	\$ 35,167	\$ 46,469	\$ 48,925
Staffing (FTE)	15.7	16.8	16.8	17.0	17.0

Water Policy Expenditures
Compared to Total Expenditures



Water Policy Staffing
Compared to Total Staffing



Water Policy CAGR

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 688	\$ 768	\$ 784	\$ 868	\$ 908
Outside services	209	2,843	450	683	763
Water for recharge	13,248	12,061	11,623	13,179	14,827
Materials & supplies	1	1	1	1	1
Other expenses	17	11	15,870	53	54
Total Operating Expenses	\$ 14,163	\$ 15,684	\$ 28,728	\$ 14,784	\$ 16,553
Expenditures by Fund					
Operating Expenses					
General Fund	\$ -	\$ -	\$ -	\$ -	\$ -
CAGR Account	14,163	15,684	28,728	14,784	16,553
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 14,163	\$ 15,684	\$ 28,728	\$ 14,784	\$ 16,553
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 14,163	\$ 15,684	\$ 28,728	\$ 14,784	\$ 16,553
Staffing (FTE)	8.3	8.8	9.0	9.0	9.0

Water Policy COLORADO RIVER PROGRAMS

(Thousands)	2019 Actuals	2020 Actuals	2021 Projection	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 412	\$ 434	\$ 418	\$ 457	\$ 480
Outside services	1,993	2,330	1,847	23,914	24,035
Materials & supplies	-	1	-	-	-
Water for recharge					
Other expenses	3,329	4,020	2,668	3,561	3,553
Total Operating Expenses	\$ 5,734	\$ 6,785	\$ 4,933	\$ 27,932	\$ 28,068
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,734	\$ 6,785	\$ 4,933	\$ 27,932	\$ 28,068
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 5,734	\$ 6,785	\$ 4,933	\$ 27,932	\$ 28,068
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 5,734	\$ 6,785	\$ 4,933	\$ 27,932	\$ 28,068
Staffing (FTE)	4.0	4.0	3.8	4.0	4.0

Water Policy

RESOURCE PLANNING & ANALYSIS

(Thousands)	2019 Actuals	2020 Actuals	2021 Projected	2022 Budget	2023 Budget
Operating Expenses					
Salaries & wages	\$ 332	\$ 388	\$ 394	\$ 412	\$ 433
Outside services	5,133	25	1,104	3,330	3,860
Materials & supplies	-	-	-	-	-
Other expenses	4	2	8	11	11
Total Operating Expenses	\$ 5,469	\$ 415	\$ 1,506	\$ 3,753	\$ 4,304
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,469	\$ 415	\$ 1,506	\$ 3,753	\$ 4,304
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
Total Operating Expenses	\$ 5,469	\$ 415	\$ 1,506	\$ 3,753	\$ 4,304
Capital Expenditures	-	-	-	-	-
Total Expenditures	\$ 5,469	\$ 415	\$ 1,506	\$ 3,753	\$ 4,304
Staffing (FTE)	3.4	4.0	4.0	4.0	4.0



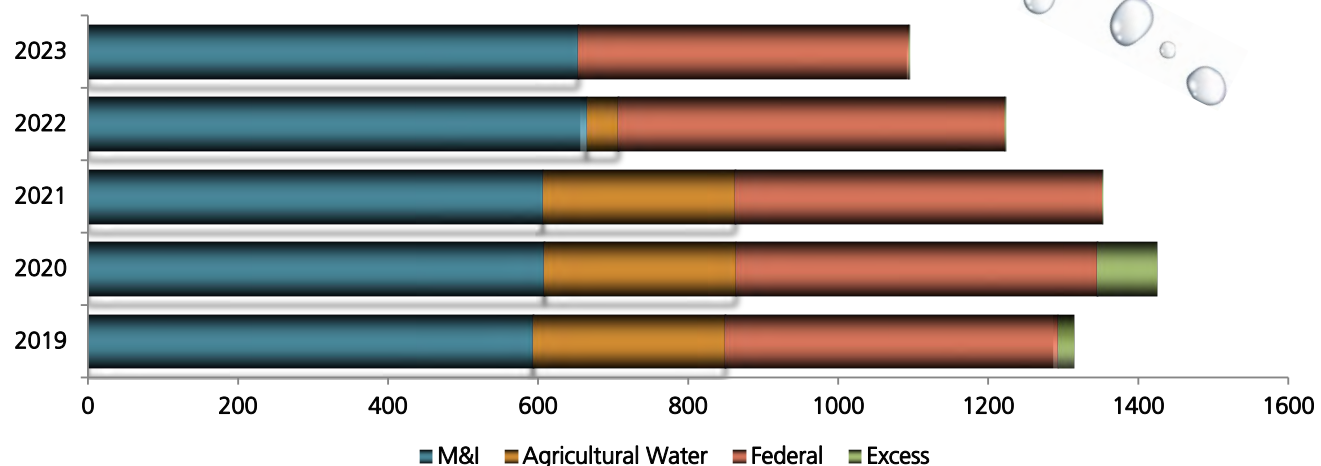
WATER DELIVERIES

(Acre-Feet)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Municipal & Industrial Water					
Subcontract	593,726	608,116	607,561	665,360	654,341
Federal Contract					
On-reservation	116,534	119,686	147,283	175,817	114,991
Off-reservation	326,687	362,763	341,790	339,451	325,468
Subtotal Federal Contract	443,221	482,449	489,073	515,268	440,459
Excess					
Ag Settlement Pool (includes Ag Forbearance)	256,143	255,415	256,110	42,000	-
CAGR D Obligation	19,536	-	-	-	-
CAGR D Obligation @ Scottsdale IWDS	1,001	850	-	-	-
AWBA	-	59,543	-	-	-
AWBA Interstate Banking Water	-	-	-	-	-
USBR Firming	-	6,695	-	-	-
CAGR D Replenishment Reserve	-	11,332	-	-	-
Temporary water use permits	637	441	625	625	625
Full Cost Excess (Unscheduled overruns)	86	-	-	-	-
Subtotal Excess	277,403	334,276	256,735	42,625	625
Supplemental excess	-	-	-	-	-
Subcontract	-	-	-	-	-
Subtotal	277,489	334,276	256,735	42,625	625
Total Water Deliveries	1,314,350	1,424,841	1,353,369	1,223,253	1,095,425
Transfer of credits to CAGR D	33,168	5,049	15,209	15,262	16,289
Take or Pay/Adjustment	26,036	11,379	6,000	6,000	6,000
Billed Fixed OM&R Water Volumes	1,373,554	1,441,269	1,374,578	1,244,515	1,117,714

Water Deliveries

(Acre-feet in Thousands)



WATER REVENUE GENERAL FUND

(Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
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WATER REVENUES

Municipal & Industrial Water Subcontract	\$ 92,010	\$ 87,656	\$ 94,822	\$ 128,627	\$ 145,997
Federal Contract					
On-reservation	18,059	13,364	22,986	33,989	25,657
Off-reservation	50,627	56,576	53,343	65,623	72,618
Subtotal Federal Contract	68,686	69,940	76,329	99,612	98,275
Excess					
Ag Settlement Pool (includes Ag Forbearance)	14,534	14,303.0	14,342	2,352	-
CAGR D Obligation	3,087	-	-	-	-
CAGR D Obligation @ Scottsdale IWDS	158	132	-	-	-
AWBA	-	9,229	-	-	-
AWBA Interstate Banking Water	-	-	-	-	-
USBR Firming	-	1,038	-	-	-
CAGR D Replenishment Reserve	-	1,756	-	-	-
Water Revenues Contra WSTA	(201)	(12,285)	-	-	-
Temporary water use permits	559	215	566	389	416
Full Cost Excess (Unscheduled overruns)	14	-	-	-	-
Subtotal Excess	18,151	14,388	14,908	2,741	416
Total Water Deliveries	178,847	171,984	186,059	230,980	244,688
Misc. Adjustments	(206)	(27)	-	-	-
Transfer of credits to CAGR D	5,241	783	2,374	2,930	3,453
Take/Pay Adj.	2,570	-	617	594	600
Total Water O&M Charges	186,452	172,740	189,050	234,504	248,741
CAPITAL & FACILITY USE CHARGES					
M&I subcontractors	25,450	34,707	76,007	35,732	40,019
M&I non-subcontract	2,206	4,675	806	763	912
Capital Charges - Pima (Interstate)	-	60	-	-	-
Underground storage facilities	397	462	366	203	53
Total Capital & Facility Use Charges	\$ 28,053	\$ 39,904	\$ 77,179	\$ 36,698	\$ 40,984

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

		Tier Zero	Tier Zero	Tier 1	Modified *
			Firm	Firm	Tier 2a
	2019	2020	2021	2022	Advisory
					2023
<u>Municipal and Industrial Subcontract (B+C)</u>	\$ 158	\$ 155	\$ 160	\$ 192	\$ 212
<u>Federal (B+C)</u>	\$ 158	\$ 155	\$ 160	\$ 192	\$ 212
<u>Agricultural Settlement Pool (C)¹</u>	\$ 62	\$ 56	\$ 56	\$ 56	\$ 57
<u>Excess (A+B+C)²</u>	\$ 199	\$ 211	\$ 213	242	268
<u>Interstate (A+B+C+D)</u>	\$ 253	TBD	TBD	TBD	TBD

RATE COMPONENTS

Units = \$/acre-foot

Capital Charges

(A) Municipal and Industrial - Long Term Subcontract ³	\$ 41	\$ 56	\$ 53	\$ 50	\$ 56
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Delivery Charges

Fixed O&M ⁴	\$ 72	\$ 75	\$ 78	\$ 103	\$ 113
"Big R" ⁴	24	24	26	33	42
(B) Fixed OM&R ⁴	96	99	104	136	155
(C) Pumping Energy Rate 1 ⁵	62	56	56	56	57
(D) Property Tax Equivalency	54	TBD	TBD	TBD	TBD
(E) Full Rate Stabilization ⁶	-	-	-	\$ (13)	\$ (12)

Underground Water Storage O&M⁷

Phoenix AMA	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13
Tucson AMA	15	15	15	15	15

Underground Water Storage Capital Charge⁸

Phoenix AMA	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15
Tucson AMA	9	9	9	9	9

* Modified from Tier 1 to Tier 2a Rate

Long-Term Municipal and Industrial (M&I) Subcontract: M&I subcontractors

Non-Subcontract: M&I users who are not subcontractors and the Central Arizona Groundwater Replenishment District (CAGRDR).

Recharge (Arizona Water Banking Authority (AWBA)/CAGRDR 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 Agricultural Settlement Pool only pays the energy rate in accordance with the Arizona Water Settlement Agreement.
- 2 Excess water is administered via Board Policy "Procedure For Distributing CAP Excess Water and Turn-Back Water for the Period of 2020 Through 2024."
- 3 For M&I subcontract water, the Capital Charge is paid on full allocation regardless of amount delivered and is not included in delivery rates. The Capital Charge rate is impacted by the following:
 - 2021 - 1-cent of 2019/20 property taxes were approved to be applied to the federal repayment by the CAWCD Board in 2019. An additional 2- cents of property taxes are being applied to the federal repayment from the 2020/21 property taxes, resulting in a reduction of \$26/AF.
 - 2022 - 2 1/2 cents of 2020/21 property taxes are being applied to the federal repayment, resulting in a reduction of \$21/AF.
 - 2023 - 1 1/2 cents of 2021/22 property taxes are being applied to the federal repayment, resulting in a reduction of \$13/AF.
- 4 Fixed OM&R charge consists of Fixed O&M and "Big R" (Water delivery capital, large extraordinary maintenance projects and bond debt service) and Fixed M&R Rate Stabilization. Debt service on CAP's Water Delivery O&M Revenue Bonds, Series 2016 is about \$3.6 million annually and is included in "Big R". This rate is collected on all scheduled water whether delivered or not.
- 5 The pumping energy rate applies to all actual water volumes as opposed to scheduled.
- 6 If Tier 1 or higher occurs, the Full Rate Stabilization takes effect, resulting in a reduction in the Fixed OM&R rate. Posted rates do not include this reduction. This is a customer funded program.
- 7 If Tier 1 or higher occurs, the 2020 Voluntary Rate Stabilization program takes effect for those entities participating, resulting in a reduction in the Energy rate. Posted rates do not include this reduction. This is a customer funded program.
- 8 Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.
- 9 Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBA for M&I firming, the CAGRD, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.

Key Assumptions

- Non-Indian Ag reallocation occurs in 2021 for 2022 deliveries.
- Wheeling starts in 2023 at 3,000 acre-foot/year and increases to 4,000 acre-foot/year in 2024 and remains at that level.
- Rates are in accordance with Arizona Implementation Plan for Drought Contingency Plan.

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

Units = \$/acre-foot

	Tier Zero	Tier Zero	Tier 1 Firm	Tier 1 Advisory	Modified * Tier 2a Advisory
	2019/20	2020/21	2021/22	2022/23	2023/24
Phoenix Active Management Area					
Water & Replenishment Component ¹	\$ 238	\$ 239	\$ 251	\$ 266	\$ 306
Administrative Component ²	41	47	50	49	48
Infrastructure & Water Rights Component ³	353	353	353	353	353
Replenishment Reserve Charge ⁴	95	103	114	120	139
Total Assessment Rate (\$/AF)	\$ 727	\$ 742	\$ 768	\$ 788	\$ 846
Pinal Active Management Area					
Water & Replenishment Component ¹	\$ 211	\$ 243	\$ 272	\$ 287	\$ 328
Administrative Component ²	41	47	50	49	48
Infrastructure & Water Rights Component ³	353	353	353	353	353
Replenishment Reserve Charge ⁴	103	103	114	120	139
Total Assessment Rate (\$/AF)	\$ 708	\$ 746	\$ 789	\$ 809	\$ 868
Tucson Active Management Area					
Water & Replenishment Component ¹	\$ 242	\$ 243	\$ 272	\$ 287	\$ 328
Administrative Component ²	41	47	50	49	48
Infrastructure & Water Rights Component ³	353	353	353	353	353
Replenishment Reserve Charge ⁴	102	103	114	120	139
Total Assessment Rate (\$/AF)	\$ 738	\$ 746	\$ 789	\$ 809	\$ 868
Contract Replenishment Tax - Scottsdale ⁵					
Cost of Water	\$ 199	\$ 211	\$ 213	\$ 242	\$ 256
Cost of Transportation	0	0	0	0	0
Cost of Replenishment	0	0	0	0	0
Administrative Component ²	41	47	50	49	48
Total Tax Rate (\$/AF)	\$ 240	\$ 258	\$ 263	\$ 291	\$ 304

ENROLLMENT & ACTIVATION FEES

Units = \$/Housing Unit

Enrollment Fee - Commercial Subdivisions ⁶	\$ 1,094	\$ 1,184	\$ 1,205	\$ 1,307	\$ 1,422
Enrollment Fee ⁶	\$ 284	\$ 304	\$ 325	\$ 347	\$ 372
Activation Fee-Minimum ⁸	\$ 282	\$ 302	\$ 323	\$ 345	\$ 369
Activation Fee-Phoenix AMA ⁸	\$ 1,080	\$ 1,180	\$ 1,290	\$ 1,400	\$ 1,520
Activation Fee-Pinal Post-2007 ⁸	\$ 1,080	\$ 1,180	\$ 1,290	\$ 1,400	\$ 1,520
Activation Fee-Tucson AMA ⁸	\$ 810	\$ 880	\$ 880	\$ 960	\$ 1,050

ANNUAL MEMBERSHIP DUES

Member Land Annual Membership Dues (\$/Lot) ⁹					
Phoenix Active Management Area	\$ 28.59	\$ 25.78	\$ 25.46	\$ 27.09	\$ 28.84
Pinal Active Management Area	\$ 19.36	\$ 18.65	\$ 18.90	\$ 20.63	\$ 22.55
Tucson Active Management Area	\$ 31.04	\$ 29.24	\$ 29.07	\$ 31.13	\$ 33.35
Member Service Area Annual Membership Dues (\$/AF) ⁹					
	\$ 97.22	\$ 93.73	\$ 95.51	\$ 104.91	\$ 115.40

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.
- 2 The Administrative Component covers CAGRD administrative costs except labor-related costs associated with the acquisition of infrastructure and water rights. \$2/AF has been added to this component to fund the Board's CAGRD conservation program.
- 3 The Infrastructure & Water Rights Component covers the cost to acquire water supplies, the cost to construct and maintain infrastructure as the need arises and the cost of labor-related costs associated with the acquisition of infrastructure and water rights.
- 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 Fee and Activation Fee Policy. Enrollment Fees for Commercial Subdivisions are phased in over a two year period and starting in the 2018/2019 fiscal year forward, are equal to the Member Land Enrollment Fee plus the Tucson AMA Activation Fee. If a Commercial Subdivision enrolls with more than 50 parcels, then the Commercial Subdivision Enrollment Fee applies on the first 50 parcels, and only the Member Land Enrollment Fee applies to the number of parcels over 50.
- 7 The Enrollment Fee is collected pursuant to the CAGRD Enrollment Fee and Activation Fee Policy adopted by the Board on May 1, 2008. A \$2 per housing unit fee is included in the Enrollment Fee to help fund CAGRD's conservation program.
- 8 The Activation Fees are in accordance with the Preliminary 2014/15 - 2019/20 CAGRD Activation fee schedule adopted by the Board on November 7, 2013.
- 9 The Annual Membership Dues for Member Lands and Member Service Areas are pursuant to ARS Sections 48-3772.A.8. and 48-3779 as well as the Policy on Collection of CAGRD Annual Membership Dues adopted by the Board on April 7, 2011.

ASSUMPTIONS:

- Annual Membership Dues (AMDs) are set at the maximum allowed by state statutes for all years.
- Water Replenishment & Replenishment Reserve rates are dependent on CAWCD rates.

PUMPING POWER / ENERGY COSTS

(General Fund)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Energy Purchases (MWH)					
Waddell	37,428	46,371	40,572	34,295	29,452
Navajo	1,426,660	-	-	-	-
Hoover B	128,081	133,666	139,260	134,756	128,019
Long-term contracts	-	304,864	343,903	396,013	474,768
Market Purchases	926,046	1,975,157	1,922,251	1,619,878	1,455,849
Total MWH	2,518,215	2,460,058	2,445,986	2,184,942	2,088,088
Energy Rates (\$/MWH)					
Net Navajo	\$ 33.71	\$ -	\$ -	\$ -	\$ -
Hoover B	42.19	39.56	39.37	43.32	48.18
Long-term contracts	-	36.38	39.56	38.58	37.07
Market Purchases	25.67	22.49	23.48	25.11	27.87
Grand Weighted Average \$/MWH	\$ 31.14	\$ 25.19	\$ 26.70	\$ 28.73	\$ 31.26
Energy Costs (\$000)					
Net Navajo	\$ 48,090	\$ -	\$ -	\$ -	\$ -
Hoover B	5,404	5,288	5,483	5,837	6,168
Long-term contracts	-	11,091	13,606	15,279	17,600
Market Purchases	23,769	44,418	45,132	40,672	40,576
Gross Energy Costs (\$000)	\$ 77,263	\$ 60,797	\$ 64,221	\$ 61,788	\$ 64,344
Energy Scheduling Services	\$ 1,183	\$ 1,256	\$ 1,053	\$ 1,106	\$ 1,161
Energy Balancing Services	1	-	-	-	-
Shaping & Displacement Adjustment	454	-	-	-	-
MWD Agreement Expense	83	58	70	85	80
Lake Pleasant Adjustment	(4,012)	6,315	2,702	1,572	(1,767)
Lake Roosevelt Adjustment	928	(269)	0	406	591
Energy and Related Costs (\$000)	\$ 75,900	\$ 68,157	\$ 68,046	\$ 64,957	\$ 64,409
Power Transmission					
Elec Trans-Losses	\$ -	\$ 3,236	\$ 3,638	\$ 2,955	\$ 2,511
Transmission - SRP	402	509	402	420	378
Transmission - Brady, Picacho & RR	554	366	453	389	350
Transmission - WECC	336	244	236	246	233
Total Pumping Costs (\$000)	\$ 77,192	\$ 72,512	\$ 72,775	\$ 68,967	\$ 67,881



Hoover Dam Generators

CAWCD DEBT INFORMATION

CAWCD is currently carrying four debt vehicles: CAP Repayment Obligation (Federal Debt), Revenue Bonds Series 2016, CAGRDR Revenue Bonds Series 2019 and 9(d) Debt.

CAP Repayment Obligation (Federal Debt)

The CAP Repayment Obligation, also known as the CAWCD Federal Debt, is a master repayment contract which CAP entered into with the Bureau of Reclamation in 1972, to repay its share of the reimbursable construction costs of the CAP system. The 50 year repayment period for each construction stage began upon substantial completion of each stage. The first stage was declared substantially complete on October 1, 1993; as a result, repayment of this obligation began in 1994. Based on the terms of the Master Repayment Contract and the subsequent repayment settlement stipulation, CAWCD is obligated to repay a total of \$1.646 billion to the federal government. The balance of the obligation is projected to be \$937.54 million at the end of 2022, and \$897.08 million at the end of 2023. The federal debt payment does not have an impact on water delivery operations.

Revenue Bonds Series 2016

Water Delivery O&M Revenue Bonds Series 2016 are secured by District revenues derived from Fixed O&M and capital replacement charges, to the extent attributable to the debt service on the bonds. The Bonds maturing on or after January 1, 2027 will be subject to call for redemption prior to maturity, at the option of the District, in whole or in part, on January 1, 2026 or on any date thereafter. The Bonds maturing prior to January 1, 2027 will not be subject to redemption prior to their stated maturity dates. The bonds have an original maturity amount of \$45.46 million, due in varying amounts through 2036; interest rates vary among individual maturities ranging from 2.00% to 5.00%, with an overall interest rate of 3.305% (NIC). The bonds have an Original Issue Premium (OIP) of \$8.85 million, which equates to a total issuance cost of \$54.31 million. The balance of the obligations, including premium amortization, is projected to be \$39.51 million at the end of 2022, and \$37.10 million at the end of 2023. The bonds are paid as part of "Big R" and not impact water delivery operations.

CAGRDR Revenue Bonds Series 2019

CAWCD, on behalf of CAGRDR, entered into an agreement with the Gila River Indian Community (GRIC) and Gila River Water Storage (GRWS) for the purchase of 375,000 AF of Long Term Storage Credits (LTSCs) for the Pinal AMA, and 70,375 AF of LTSCs for the Phoenix AMA. The purchase price was \$95 million, consisting of an initial payment of \$65 million due 30 days after signing, and the remaining payment of \$30 million due 6 months subsequent to the signing. Bonds were issued on 7/24/19 in the aggregate amount of \$20 million, with the final bond maturing in 2025, and each bond carrying an interest rate of 2.45%. The balance of the obligations is projected to be \$11.36 million at the end of 2022, and \$7.66 million at the end of 2023. These bonds are paid from the CAGRDR Infrastructure & Water Rights revenues and do not impact operations.

Non-Indian Agriculture 9(d) Debt

As part of the Arizona Water Settlement Act, Non-Indian Agricultural Districts gave up their water rights. Part of these rights are held by CAWCD. In exchange for these rights, CAWCD incurred this debt, which was a portion of federal funds previously provided to the impacted irrigation districts for infrastructure. This debt is to be paid by entities receiving the reallocation and does not have an impact on operations.

FEDERAL DEBT SCHEDULE

(Thousands)

	2019 Actual	2020 Actual	2021 Projection	2022 Budget	2023 Budget
Sources of Funds					
Navajo-Related Revenues:					
SRP related revenues	\$ 29,586	\$ -	\$ -	\$ -	\$ -
Other NGS net revenues	3,856	6,437	-	-	-
Shaping & displacement	454	-	-	-	-
Net Revenues - NGS	33,896	6,437	-	-	-
Net Navajo misc. revenues	2,578	2,433	2,272	2,160	2,200
Hoover 4.5 mil surcharge	3,175	3,015	3,389	3,150	3,200
Parker-Davis	2,708	2,895	2,837	2,900	2,900
Net CAP transmission revenues including line losses	9,060	(1,112)	(1,420)	(1,000)	(1,000)
Land-related revenues:			-		
Land use (net)	51	2,411	850	830	830
Land sales (net)	1,234	-	-	-	-
Interest on deposits	1,357	349	130	260	300
Total Credits Toward Repayment	\$ 54,059	\$ 16,428	\$ 8,058	\$ 8,300	\$ 8,430
Uses of Funds					
Principal	\$ 32,929	\$ 32,929	\$ 40,456	\$ 40,456	\$ 40,456
Interest	21,182	20,101	19,021	17,689	16,357
Gross Payment <i>(Due Jan. 20th following year-end)</i>	\$ 54,111	\$ 53,030	\$ 59,477	\$ 58,145	\$ 56,813
(Net Due) / Excess Funds for Repayment	\$ (52)	\$ (36,602)	\$ (51,419)	\$ (49,845)	\$ (48,383)
CAP NGS Energy Reconciliation	(2,529)	-	-	-	-
Net Funds (Due to)/from Federal Government	\$ (2,581)	\$ (36,602)	\$ (51,419)	\$ (49,845)	\$ (48,383)

FEDERAL REPAYMENT OBLIGATION

(\$ Thousands)

Payment Made	Payment Due			Principal Balance (December 31st)		
January 20th	Principal	Interest	Total	Interest Bearing	Non-Interest Bearing	Total
2021	32,929	20,101	53,030	569,148	408,844	977,992
2022	40,456	19,021	59,477	529,292	408,244	937,536
2023	40,456	17,689	58,145	489,436	407,644	897,080
2024	40,456	16,357	56,813	449,579	407,044	856,623
2025	42,808	15,025	57,833	407,221	406,594	813,815
2026	42,808	13,609	56,417	364,863	406,144	771,007
2027	42,808	12,194	55,002	322,505	405,694	728,199
2028	42,808	10,778	53,586	280,147	405,244	685,391
2029	44,063	9,363	53,426	236,535	404,794	641,329
2030	44,063	7,905	51,968	192,922	404,344	597,266
2031	44,063	6,447	50,510	149,310	403,894	553,204
2032	44,454	4,990	49,444	105,285	403,465	508,749
2033	44,454	3,519	47,973	61,238	403,056	464,295
2034	44,454	2,047	46,501	21,167	398,674	419,840
2035	44,454	707	45,161	10,583	364,802	375,386
2036	44,454	354	44,808	-	330,931	330,931
2037	44,454	-	44,454	-	286,477	286,477
2038	44,454	-	44,454	-	242,022	242,022
2039	44,454	-	44,454	-	197,568	197,568
2040	44,454	-	44,454	-	153,113	153,113
2041	44,454	-	44,454	-	108,659	108,659
2042	44,454	-	44,454	-	64,204	64,204
2043	44,454	-	44,454	-	19,750	19,750
2044	10,583	-	10,583	-	9,167	9,167
2045	9,167	-	9,167	-	-	-
2046	-	-	-	-	-	-

REVENUE BONDS, SERIES 2016 - DEBT SERVICE SCHEDULE

(\$ Thousands)

Payment Date: January 1st	Principal	Coupon	Interest	Annual Debt Service	Principal Balance December 31st
2021	1,725	2.00%	1,898	3,623	37,675
2022	1,760	5.00%	1,863	3,623	35,915
2023	1,845	5.00%	1,775	3,620	34,070
2024	1,940	5.00%	1,683	3,623	32,130
2025	2,035	4.00%	1,586	3,621	30,095
2026	2,120	5.00%	1,505	3,625	27,975
2027	2,225	5.00%	1,399	3,624	25,750
2028	2,335	5.00%	1,288	3,623	23,415
2029	2,450	5.00%	1,171	3,621	20,965
2030	2,575	5.00%	1,048	3,623	18,390
2031	2,705	5.00%	920	3,625	15,685
2032	2,840	5.00%	784	3,624	12,845
2033	2,980	5.00%	642	3,622	9,865
2034	3,130	5.00%	493	3,623	6,735
2035	3,285	5.00%	337	3,622	3,450
2036	3,450	5.00%	173	3,623	-

CAGR D REVENUE BONDS, SERIES 2019—DEBT SERVICE SCHEDULE

(\$ Thousands)

Payment Date: January 1	Principal	Coupon	Interest	Annual Debt Service	Principal Balance December 31st
2021	3,520	2.45%	453	3,973	14,960
2022	3,605	2.45%	367	3,972	11,355
2023	3,695	2.45%	278	3,973	7,660
2024	3,785	2.45%	188	3,973	3,875
2025	3,875	2.45%	95	3,970	-

Dated Date	07/24/2019
Delivery Date	07/24/2019
First Coupon	01/01/2020
Par Amount	\$20,000,000

NON-INDIAN AGRICULTURE 9(D) DEBT

(\$ Thousands)

Payment Date: December 31	Beginning Balance	Principal Payment	Ending Balance
2021	88,719	-	88,719
2022	88,719	-	88,719
2023	88,719	-	88,719
2024	88,719	-	88,719
2025	88,719	-	88,719
2026	88,719	2,718	86,001
2027	86,001	5,658	80,343
2028	80,343	5,658	74,685
2029	74,685	5,658	69,027
2030	69,027	5,658	63,369
2031	63,369	5,658	57,711
2032	57,711	5,658	52,053
2033	52,053	5,591	46,462
2034	46,462	4,968	41,494
2035	41,494	4,692	36,802
2036	36,802	4,692	32,110
2037	32,110	4,692	27,418
2038	27,418	4,692	22,726
2039	22,726	4,692	18,034
2040	18,034	3,539	14,495
2041	14,495	2,132	12,363
2042	12,363	2,170	10,193
2043	10,193	2,170	8,023
2044	8,023	2,170	5,853
2045	5,853	2,170	3,683
2046	3,683	2,170	1,513
2047	1,513	1,513	-

RECONCILIATION OF WATER DELIVERY RATES

CALCULATION OF WATER DELIVERY COSTS

	2021		2022		2023	
	Projection (Tier 0)	Published (Tier 0)	Budget (Tier 1)	Published (Tier 1)	Budget (Tier 2a)	Advisory (Tier 2a)
<i>(Thousands)</i>						
General Fund Operating Expenses	\$ 238,472	\$ 257,284	\$ 269,654	\$ 244,386	\$ 273,369	\$ 249,015
Adjustments for O&M Expenses						
Depreciation and Amortization	\$ (48,883)	\$ (51,017)	(49,613)	(52,136)	(50,081)	(53,038)
Pumping Energy and Capacity Charges	(68,046)	(80,597)	(64,956)	(60,705)	(64,410)	(56,391)
Transmission to be Included in Energy	(4,729)	(1,498)	(4,010)	(1,229)	(3,472)	(1,208)
Underground Storage Site O&M	(1,169)	(1,161)	(1,319)	(1,735)	(1,545)	(1,419)
Extraordinary Maintenance (when part of "Big R")	-	(3,870)	(4,204)	(10,860)	(2,572)	(9,160)
Other Income	(281)	(722)	(524)	(669)	(556)	(680)
Fixed O&M Payment on Tribal ICS	(3,120)	-	-	-	-	-
DCP Mitigation Cost Adjustment - prior year (Metro)	(361)	(406)	732	(444)	-	(486)
Costs Funded by Extraordinary Cost Reserve	(3,835)		(7,460)		(8,276)	-
Conservation Initiative - PVID Fallowing	(842)					
Wheeling Costs Funded by System Use Reserve	(521)	(500)	(95)	(800)	(20)	-
Water Firming Paid with Supplemental Water Reserve	-	-	-	-	-	(8,900)
Regional Recycled with MWD Funded by Water Storage Reserve	-	-	(1,000)	-	(1,000)	-
Compensated Mitigation Funded by 'Big R'	-	-	(3,748)	-	(3,493)	-
Recovery Expenses Funded by Recovery Reserve	(1,000)	(3,000)	(3,230)	(1,500)	(3,750)	(1,500)
Total Adjustments	(132,787)	(142,771)	(139,427)	(130,078)	(139,175)	(132,782)
Fixed O&M Expenses	\$ 105,685	\$ 114,513	\$ 130,227	\$ 114,308	\$ 134,194	\$ 116,233
Pumping Energy & Hoover capacity charges						
Pumping Energy and Capacity Charges	68,046	80,597	64,956	60,705	64,410	56,391
Transmission to be Included in Energy	4,729	1,498	4,010	1,229	3,472	1,208
Total Pumping Energy & Hoover capacity charges	\$ 72,775	\$ 82,095	\$ 68,966	\$ 61,934	\$ 67,882	\$ 57,599

CALCULATION OF RECONCILED WATER DELIVERY RATES

	2021		2022		2023	
	Projection	Published	Budget	Published	Budget	Advisory
Water Delivery Costs <i>(Thousands)</i>						
Fixed O&M Expenses	\$ 105,685	\$ 114,513	\$ 130,227	\$ 114,308	\$ 134,194	\$ 116,233
Total Pumping Energy Expenses	72,775	82,095	68,966	61,934	67,882	57,599
Water Deliveries <i>(Acre-Feet)</i>						
Total Water Deliveries with Credits	1,368,578	1,474,000	1,238,515	1,105,050	1,111,714	1,025,050
Take or Pay Adjustment	6,000	6,000	6,000	6,000	6,000	6,000
Billed Fixed OM&R Water Volume	1,374,578	1,480,000	1,244,515	1,111,050	1,117,714	1,031,050
Pumping Energy Rate Water Volume	1,368,578	1,474,000	1,238,515	1,105,050	1,111,714	1,025,050
Water Delivery Rate <i>(\$/AF)</i>						
Calculated Fixed O&M Rate	\$ 76.89	\$ 78.00	\$ 104.64	\$ 103.00	\$ 120.06	\$ 113.00
Capital Replacement Component ("Big R")	26.00	26.00	33.00	33.00	42.00	42.00
Total Fixed OM&R	102.89	104.00	137.64	136.00	162.06	155.00
Calculated Pumping Energy Rate	53.18	56.00	55.68	56.00	61.06	57.00
Total Pumping Energy Rate	53.18	56.00	55.68	56.00	61.06	57.00
Total Delivery Rate	\$ 156.07	\$ 160.00	\$ 193.32	\$ 192.00	\$ 223.12	\$ 212.00



Arizona Desert

POLICIES, GUIDELINES & PRACTICES

OPERATIONAL AND FINANCIAL OBJECTIVES

Board

The policies and governing principles subscribed to by the Central Arizona Water Conservation District (CAWCD or District) Board of Directors (Board) provide direction to staff in accomplishing the financial and operational objectives of Central Arizona Project (CAP). These policies and principles ensure that financial decisions are made with full public disclosure and opportunity for public input. As the state's largest provider of renewable water supplies, open and interactive public discussions of financial and budget issues will ensure that public trust is maintained and enhanced.

Management

The General Manager (GM), in consultation with the Management Council (MC), using the directives provided in the Board's Human Resources Policy, establishes policies, programs and practices that protect the assets of CAP. Policies are in place that strive to recruit, select and retain qualified employees who, using established policies, programs and practices, will protect the resources that have been entrusted to their use and care by the public.

Finance and Accounting

The finance and accounting guidelines and practices establish the basis for the overall financial planning and management framework at CAP. These guidelines and practices are established by accounting guidelines (i.e., Generally Accepted Accounting Principles (GAAP) and Governmental Accounting Standards Board (GASB)), laws and regulations, and internally developed procedures that help ensure the prudent and professional financial management practices needed to achieve and maintain long-term financial stability.



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
Excess CAP Water policy for 2020 – 2024	06/04/09 03/06/14 09/05/19	Establishes: <ul style="list-style-type: none"> Process for allocation of excess water for: <ul style="list-style-type: none"> Ag Settlement Pool Water Availability contract CAGRD Replenishment Obligation Statutory firming pool including Arizona Water Banking Authority, Bureau of Reclamation and CAGRD Replenishment Reserve Supplemental Firming Pool
Policy Regarding the Relinquishment & Transfer of CAP Municipal & Industrial (M&I) Subcontract Allocation, effective 12/1/2017	09/06/96 11/03/16	Requires: <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	Requires: <ul style="list-style-type: none"> CAP to comply with all applicable environmental laws and regulations.
CAGRD Conservation Program	03/02/06	Provides for better understanding of the CAGRD by its members and reduction in members' water use. Program components include: <ul style="list-style-type: none"> Education Partnerships/collaboration Study to determine groundwater use efficiency of CAGRD Member Lands (ML) Funding
Bylaws		
Bylaws of Central Arizona Water Conservation District (CAWCD)	04/07/77 11/02/17	Provides organization structure and regulations for the governing Board.

Policy Name	Board Approval	Synopsis
CAP Facilities		
Interstate Off-stream Underground Storage Policy	06/22/00	Provides for: <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	Provides for: <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	Provides for: <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	Provides for: <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	Provides for: <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 02/01/18	Establishes strategy, philosophy and process regarding goals, cost measurement, charges for subcontract water delivery, capital and excess water, and forward announcement of prices, pools and price stability. Provides for biennial rate-setting, in accordance with the biennial budget process.
Approved Water Rate Schedule	June of Even Numbered Years	Establishes firm delivery rates for the following two years and advisory rates for the subsequent four years.
CAGRDC Annual Membership Dues	04/07/11 11/03/16	Provides methodology and process for establishing annual membership dues for CAGRDC Member Lands (ML) and Member Service Areas (MSA).
CAGRDC Assessment Rate Setting Policy	04/05/01 06/06/10	Establishes purpose, process and methodology for computing components of CAGRDC assessment rates.
CAGRDC 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 CAGRDC.
Recharge Rate Setting Policy	10/02/03 05/06/10	Establishes process and methodology for setting recharge rates that provides for cost recovery, rate predictability and stability, operational efficiency, accountability and legal compliance.
Finance, Audit & Power Mission Statement	05/07/09	Provides assistance to the Board in fulfilling its responsibilities to the electorate relating to accounting, auditing, the quality and integrity of the Districts financial reports, budgetary and fiscal practices, operational security, energy risk management, and other power and transmission matters.
Administration & Human Resources		
Human Resources & Management Practices	09/05/02	Provides for development of policies, programs and procedures in the areas of Administration, Compensation and Benefits, Employment, and Environment, Health, Safety and Security.
Inspection Standards and Retention Requirements for Water Provider Records Relating to CAGRDC 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 CAGRDC water providers • Record retention requirements for CAGRDC water providers
CAWCD Executive Sessions and Executive Session Minutes	09/06/18	Provides approved purposed for executive sessions and procedures for executive minutes.

Policy Name	Board Approval	Synopsis
Use Of Colorado River Water		
Statement of Policy to Encourage Maximum Use of Available Colorado River Water	09/03/87 03/08/01	Encourages: <ul style="list-style-type: none"> • Direct use or storage of CAP water • Dater 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 CAGRDR, water user entities and AWBA
CAP Water Use		
Refinancing of 9(d) Debt	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 • CAGRDR 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	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 CAGRDR 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 CAGRDR in establishing a replenishment reserve • Payment by CAGRDR to CAP for credits in the year in which credits are used

Policy Name	Board Approval	Synopsis
CAP Water Use		
Compensated Conservation Program	06/06/19	Establishes a voluntary, transparent and competitive process for CAWCD to solicit proposals from CAP M&I and Indian Priority contractors and subcontractors who are willing to reduce historical, beneficial consumptive use of their CAP entitlements for compensation by CAWCD.
CAGR Long-Term CAP Contract to Satisfy the Arizona Water Banking Authority's Firming or Interstate Obligations	06/08/17	Allows the CAGR to forego planned deliveries of Project Water scheduled to underground storage facilities (USFs) in exchange for an equal amount of AWBA long-term storage credits being assigned to the CDA, Conservation District Account.
CAGR Water Supply Program Principles	11/07/13	Provides principles for the CAGR acquisition of long-term water supplies to meet its replenishment obligations.
Exchanges of CAP Entitlements of Subcontractors Outside CAWCDs Service Area	07/07/94	Provides for: <ul style="list-style-type: none"> • The use of groundwater in Active Management Areas • Promoting the early use of CAP water • Assuring the long term availability of a water supply for the community which seeks to transfer its CAP entitlement
CAWCD Rate-Setting Policy - Lower Basin Drought Contingency Plan: Collection of Fixed OM&R for System Conservation Projects with CAP Project Water	03/05/20	Provides for: <ul style="list-style-type: none"> • Supplemental Guidance intended to provide transparency in Fixed OM&R rate-setting. • Provides a process consistent with current water ordering procedures to enable CAP rate payers to better understand water supply and Fixed OM&R rate impacts stemming from system conservation projects in the CAP system



MANAGEMENT POLICIES

Policy Name	Policy Approved	Synopsis
Administration		
Purchasing	03/02/00 07/25/17 05/06/21	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 08/14/20	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 01/28/19	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 01/25/18	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 06/06/21	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
Asset Management	02/27/18	Provides: <ul style="list-style-type: none"> • Provides general guidance for asset management at CAP and is intended to ensure decisions throughout the organization are informed by an understanding of service, risk and life cycle cost

Policy Name	Policy Approved	Synopsis
Records and Information Management	05/12/00 08/31/10	Provides for: <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 11/05/18	Provides: <ul style="list-style-type: none"> Guidelines and sets limits for business meals, meetings events and recognition/reward functions
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 05/30/19	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 04/11/18	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
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

Policy Name	Policy Approved	Synopsis
Overtime	09/20/90 02/09/16 05/30/19	Provides for: <ul style="list-style-type: none"> Scheduling of overtime hours Compensation for overtime hours worked in accordance with Fair Labor Standards Act Compensation for call out pay
Employee Assistance Program	11/01/04	Provides for: <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 05/30/19	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
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 02/12/20	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 05/24/21	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 12/19/17	Provides for: <ul style="list-style-type: none"> Management and control of company telephones, mobile phones, tablets, laptops or hybrid devices which access CAP information systems
Diversity and Inclusion	12/13/10 02/27/18	Provides for: <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 06/27/21	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 06/14/21	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 12/19/17 04/18/19	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 12/21/20	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 12/19/17	Provides: <ul style="list-style-type: none"> • Definition of security requirements for connecting to CAP's network from a non-CAP network.
Teleworking	08/09/21	Provides: <ul style="list-style-type: none"> • A formal arrangement with an employee that allows the use of telecommunications and computer technologies to perform job functions at an alternative workspace that can be in an employee's home, or other approved location, for one day a week in lieu of a designated office, cubicle or desk on CAP premises. • Improved employee safety via reduced commute times • Reduction to CAP's carbon footprint by cutting down on vehicle emissions. • Strengthened work-life balance and improved productivity for employees. • Discovery of appropriate balance of telework and in-person work necessary to achieve CAP's operating goals.



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 existing asset should be expensed in the current period and included in the Operating Budget; such expenditures include, but are not limited to, normal repairs, spare parts, routine maintenance, relocation and storage. • Capitalized Expenditures: <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. ◊ Newly installed plant machinery & equipment: installed units of machinery and equipment with a cost of \$25,000 or more shall be capitalized ◊ Costs subsequent to acquisition: <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 and increase the use value and extend the useful life of the asset shall be capitalized.
Investment Management	ARS Title 48, Chapter 22, Article 1.0 governs all funds received on behalf of CAP. ARS 48-3712(A)(5) specifies that excess funds not immediately required must be invested with the Arizona State Treasurer pursuant to ARS 35-313. A listing of State Treasurer investments permitted by law is detailed under ARS 35-313.
Cash Management	The objectives of CAP's cash management guidelines are to ensure the: (a) safety of principal by maximizing investment income while maintaining the preservation of capital; (b) cash and investment fund balances will remain sufficiently liquid to enable CAP to meet all operating requirements and expenses that might be reasonably anticipated; and (c) investment pools and fund balances shall be managed with the objective of attaining, at a minimum, a market-average rate of return, taking into account the constraints of state-mandated statutes and cash flow needs.

Synopsis

Debt Policy

- Debt Limitations
 - ◊ CAP's debt, aside from the debt to the federal government for the repayment of the reimbursable costs of CAP, is limited to \$500 million for revenue bonds and is not limited to general obligation bonds. General obligation bonds are subject to voter approval.
 - ◊ The general policy of CAP is to fund Operations, Maintenance and Replacement (OM&R) and the Capital Improvement Program (CIP) on a "pay as you go" basis from the water delivery and property tax revenues each year. Extraordinary expenditures will be funded from reserves. If reserves are not sufficient, CAP may issue either revenue bonds or general obligation bonds, subject to applicable law.
- Derivatives
 - ◊ CAP will not invest in derivatives without specific approval from the Board.
- Debt Structuring
 - ◊ CAP will attempt to match the term of issued debt with the useful lives of assets funded by such debt, without limitation.
 - ◊ CAP may issue fixed or variable rate debt, as conditions dictate. CAP may issue debt with premiums or discounts, as conditions dictate. CAP may issue debt with equal payment provisions, equal principal amortization, deferred principal payments, or any other structure that meets the needs of CAP, without limitation.
- Debt Issuance Practices
 - ◊ CAP will issue new or refunding debt only under the advice of a qualified financial advisor and underwriter, who will be selected according to CAP's purchasing policy. Pricing will be negotiated between CAP and the underwriter with input from the financial advisor. CAP will seek credit ratings from at least two nationally recognized rating agencies. The Board will determine the minimum acceptable credit rating for any issuance of debt. The Board will determine the refunding provisions for any issuance of debt.
- Debt Management Practices
 - ◊ Bond proceeds will be invested according to applicable Arizona law. Guaranteed Investment Contracts will be utilized as available and applicable. Arbitrage rebate calculations will be completed annually and payments submitted to the federal government as required. Appropriate market disclosures will be filed. Investor communications will be provided according to applicable debt covenants.

Financial Reporting

It is the practice of CAP to:

- Prepare and issue financial reports on a monthly, quarterly and annual basis; these reports are prepared at a hierarchical level, from the lowest (cost center) to the highest (consolidated financial statements)
 - On a quarterly basis, require cost center managers to prepare a variance analysis that explains significant variances to budget for year-to-date actual expenditures and projected full-year expenditures
 - On a quarterly basis, require Finance to prepare and present a Quarterly Financial Review for the Management Council and the Finance, Audit Committee of the Board
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Welcome To **Arizona**

County Profiles

ARIZONA'S LARGEST EMPLOYERS

Arizona's 5 Largest Government Employers

Rank		2020 Emp
1	State of Arizona	36,310
2	City of Phoenix	13,776
3	Maricopa County	12,939
4	Arizona State University	12,715
5	University of Arizona	9,442

Arizona's Largest Non Governmental Employers

Rank		2020 Emp	Rank		2020 Emp	Rank		2020 Emp
1	Banner Health	44,718	16	Bank of America Corp.	9,200	33	Cigna Corp.	4,889
2	Walmart Stores Inc.	34,071	17	Freeport-McMoran Inc.	8,759	34	Starbucks Corp.	4,700
3	Kroger Co.	20,530	18	Bashas' Supermarkets	8,519	35	USAA	4,700
4	Wells Fargo & Co.	16,161	19	Amazon.com Inc.	8,500	36	Southwest Airlines Co.	4,661
5	Albertsons Companies	14,500	20	Target Corp.	8,400	37	Sprouts Farmers Market	4,526
6	McDonald's Corp.	13,000	21	Honeywell International Inc.	7,792	38	Marriott International	4,500
7	CVS Health	12,100	22	Circle K	7,478	39	Subway	4,500
8	Raytheon Co.	12,000	23	Mayo Foundation	7,436	40	TMC Healthcare	4,452
9	HonorHealth	11,919	24	State Farm	7,200	41	Lowes Companies Inc.	4,400
10	Dignity Health	10,562	25	UnitedHealthcare	7,194	42	Boeing Co.	4,336
11	Intel Corp.	10,400	26	American Express Co.	7,000	43	Roman Catholic Diocese of Phoenix	4,316
12	The Home Depot Inc.	10,200	27	Pinnacle West Capital Corp.	6,259	44	Charles Schwab & Co.	4,042
13	JP Morgan Chase & Co.	10,000	28	Walgreen Co.	6,088	45	Cox Enterprises	3,986
14	American Airlines Group	10,000	29	Costco Wholesale Corp.	5,569	46	Amerco	3,843
15	Tenet Healthcare Corp.	9,483	30	Salt River Project	5,209	47	Goodwill of Central and Northern AZ	3,842
			31	United Parcel Service	5,000	48	Steward Health Care	3,600
			32	Phoenix Children's Hospital	4,900	49	Northern Arizona Healthcare	3,600
						50	Knight-Swift Transportation	3,500

2020 COUNTY POPULATIONS (ESTIMATIONS)

DUE TO LIMITATIONS, ONLY SELECTED INFORMATION WAS UPDATED BASED ON ESTIMATES AS OF JULY 1, 2020, INCLUDING THE POPULATION ESTIMATES BELOW. THE FULL COUNTY PROFILES ON THE FOLLOWING PAGES WERE LAST PREPARED AND UPDATED IN 2017. (WWW.AZCOMMERCE.COM)

MARICOPA COUNTY

City / Town	Estimated Population
-------------	----------------------

Total Population	4,439,220
Apache Junction	328
Avondale	85,108
Buckeye	87,480
Carefree	3,794
Cave Creek	5,940
Chandler	272,011
El Mirage	34,857
Fountain Hills	24,812
Gila Bend	2,025
Gilbert	263,461
Glendale	244,733
Goodyear	92,865
Guadalupe	6,400
Litchfield Park	6,942
Mesa	504,410
Paradise Valley	14,258
Peoria	184,469
Phoenix	1,634,061
Queen Creek	30,224
Scottsdale	250,903
Surprise	141,486
Tempe	192,008
Tolleson	7,227
Wickenburg	7,039
Youngtown	6,615
Unincorporated	315,764

PINAL COUNTY

City / Town	Estimated Population
-------------	----------------------

Total Population	467,932
Apache Junction	41,782
Casa Grande	58,880
Coolidge	13,312
Eloy	17,000
Florence	27,220
Hayden	0
Kearney	2,131
Mammoth	1,559
Marana	0
Maricopa	57,765
Queen Creek	11,503
Superior	3,093
Winkelman	0
Unincorporated	233,785

PIMA COUNTY

City / Town	Estimated Population
-------------	----------------------

Total Population	1,052,375
Marana	51,300
Oro Valley	46,273
Sahuarita	32,181
Tucson	549,016
Unincorporated	367,904

Peach Springs Walapai Holbrook Winslow Payson Chandler Grand Canyon Village
 Fort Defiance San Manuel Snowflake Winkelman Saffore Hotevilla Kayenta
 Mexican Water Keams Canyon Tonto Basin Oro Valley Bullhead City
 Red Rock Pinta
Arizona
 Glendale Goodyear North Globe Globe Gray Mountain Sanders Parker Clifton Nogales Bisbee
 Franconia Dolann Springs Lake Havasu City Wenden Poston Midway Casa Grande Fountain Hills
 Yuma Scottsdale Aquila Page Flagstaff El Paso Elroy Two Guns Roosevelt Gilbert Saint Johns Fort Defiance
 Mesa Peoria Tucson Wilcox
 Santa Ana Apache Junction Payson Tanque Duncan McNary Geronimo Mammoth
 Three Point Kingman Cowie Ajo
 Florence Patagonia Tubac Sierra Vista Portals San Simon

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.



POPULATION

	2000	2010	2017
Arizona	5,130,632	6,401,569	6,965,897
Maricopa County	3,072,149	3,824,058	4,221,684
<i>Incorporated Cities & Towns</i>			
Phoenix	1,321,045	1,449,242	1,579,253
Mesa	396,375	439,929	481,275
Glendale	218,812	227,217	239,858
Chandler	176,581	236,687	257,948
Scottsdale	202,705	217,365	242,540
Gilbert	109,697	209,048	246,423
Peoria	108,364	154,171	171,587
Tempe	158,625	161,974	179,794
Surprise	30,848	117,688	130,129
Goodyear	18,911	65,404	81,447
Avondale	35,883	76,468	81,621
Buckeye	6,537	51,019	69,947
El Mirage	7,609	31,911	34,174
Queen Creek	4,316	26,448	40,208
Apache Junction	31,814	35,828	40,030
Fountain Hills	20,235	22,444	23,862
Paradise Valley	13,664	12,810	13,913
Youngtown	3,010	6,154	6,575
Wickenburg	5,082	6,353	7,253
Tolleson	4,974	6,573	6,992
Cave Creek	3,955	5,005	5,676
Guadalupe	5,228	5,540	6,332
Litchfield Park	3,810	5,467	6,452
Carefree	2,790	3,358	3,669
Gila Bend	1,980	1,932	2,010

Office of Economic Opportunity

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,312,720	4.9 %
Maricopa County	2,134,987	4.2 %
<i>Incorporated Cities & Towns</i>		
Phoenix	811,570	4.3 %
Mesa	239,712	4.2 %
Glendale	121,277	4.5 %
Chandler	142,010	3.8 %
Scottsdale	139,861	3.5 %
Gilbert	131,473	3.5 %
Peoria	85,252	4.0 %
Tempe	109,401	3.9 %
Surprise	55,570	4.5 %
Goodyear	36,972	4.3 %
Avondale	42,780	4.4 %
Buckeye	26,288	5.2 %
El Mirage	16,275	4.6 %
Queen Creek	17,775	3.5 %
Apache Junction	14,711	6.2 %
Fountain Hills	12,597	3.8 %
Paradise Valley	6,514	1.5 %
Youngtown	2,885	10.7 %
Wickenburg	2,768	0.3 %
Tolleson	3,235	4.3 %
Cave Creek	2,591	5.4 %
Guadalupe	2,658	9.8 %
Litchfield Park	2,578	3.0 %
Carefree	1,193	1.8 %
Gila Bend	815	2.1 %

Office of Economic Opportunity

AGE DISTRIBUTION

0-14	20.9 %
15-24	13.8 %
25-44	27.5 %
45-64	24.0 %
65+	13.8 %

American Community Survey

DISTANCE TO MAJOR CITIES (FROM PHOENIX)

Tucson	111 miles
Los Angeles	372 miles
San Diego	355 miles
Las Vegas	287 miles

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	394.7	21.1 %
Professional, scientific, & administrative services	245.3	13.1 %
Retail trade	230.4	12.3 %
Arts, entertainment, food & recreation services	187.3	10.0 %
Finance, insurance & real estate	183.3	9.8 %
Manufacturing	142.9	7.6 %
Construction	126.8	6.8 %
Transportation, warehousing, & utilities	96.4	5.2 %
Other services, except public administration	92.1	4.9 %
Public administration	74.5	4.0 %
Wholesale trade	48.6	2.6 %
Information	36.6	2.0 %
Agriculture, forestry, fishing, hunting, & mining	12.2	0.6 %

American Community Survey

PROPERTY TAX

	Schools	City/Fire	County	Total
Apache Junction (Maricopa County)	0.00	0.00	4.06	4.06
Avondale	9.96	1.70	4.06	15.71
Buckeye	9.23	1.80	4.06	15.09
Carefree	2.41	0.00	4.06	6.47
Cave Creek	2.41	2.17	4.06	8.64
Chandler	6.57	1.16	4.06	11.79
El Mirage	7.21	3.78	4.06	15.05
Fountain Hills	3.25	0.45	4.06	7.75
Gila Bend	2.98	0.38	4.06	7.42
Gilbert	6.99	1.06	4.06	12.11
Glendale	10.82	2.15	4.06	17.03
Goodyear	7.10	1.86	4.06	13.02
Guadalupe	8.23	0.00	4.06	12.29
Litchfield Park	7.37	0.00	4.06	11.43
Mesa	7.61	1.16	4.06	12.82
Paradise Valley	7.05	2.17	4.06	13.28
Peoria (Maricopa County)	8.13	1.44	4.06	13.63
Phoenix	12.29	2.17	4.06	18.52
Queen Creek (Maricopa County)	8.10	1.95	4.06	14.10
Scottsdale	3.91	1.13	4.06	9.10
Surprise	5.49	0.76	4.06	10.31
Tempe	8.23	2.53	4.06	14.82
Tolleson	8.45	3.97	4.06	16.48
Wickenburg (Maricopa County)	5.45	1.54	4.06	11.05
Youngtown	7.21	0.00	4.06	11.27

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Apache Junction (Maricopa County)	2.40%	0.70%	5.60%	8.70%
Avondale	2.50%	0.70%	5.60%	8.80%
Buckeye	3.00%	0.70%	5.60%	9.30%
Carefree	3.00%	0.70%	5.60%	9.30%
Cave Creek	3.00%	0.70%	5.60%	9.30%
Chandler	1.50%	0.70%	5.60%	7.80%
El Mirage	3.00%	0.70%	5.60%	9.30%
Fountain Hills	2.60%	0.70%	5.60%	8.90%
Gila Bend	3.50%	0.70%	5.60%	9.80%
Gilbert	1.50%	0.70%	5.60%	7.80%
Glendale	2.90%	0.70%	5.60%	9.20%
Goodyear	2.50%	0.70%	5.60%	8.80%
Guadalupe	4.00%	0.70%	5.60%	10.30%
Litchfield Park	2.80%	0.70%	5.60%	9.10%
Mesa	1.75%	0.70%	5.60%	8.05%
Paradise Valley	2.50%	0.70%	5.60%	8.80%
Peoria (Maricopa County)	1.80%	0.70%	5.60%	8.10%
Phoenix	2.30%	0.70%	5.60%	8.60%
Queen Creek (Maricopa County)	2.25%	0.70%	5.60%	8.55%
Scottsdale	1.65%	0.70%	5.60%	7.95%
Surprise	2.20%	0.70%	5.60%	8.50%
Tempe	1.80%	0.70%	5.60%	8.10%
Tolleson	2.50%	0.70%	5.60%	8.80%
Wickenburg (Maricopa County)	2.20%	0.70%	5.60%	8.50%
Youngtown	3.00%	0.70%	5.60%	9.30%

Arizona Dept. of Revenue & Arizona Tax Research Association

CONTACT INFORMATION

Arizona Commerce Authority
Phone: 602-845-1200
Website: www.azcommerce.com

Pinal County Economic Development
Phone: 520-866-6664
Website: pinalcountyaz.gov

City of Avondale Economic Development
Phone: 623-333-1400
Website: <http://www.avondale.org/>

WESTMARC (Western Maricopa Coalition)
Phone: 623-435-0431
Website: www.westmarc.org

City of Chandler, Economic Development Office
Phone: 480-782-3035
Website: www.chandleraz.gov

Town of Fountain Hills
Phone: 480-816-5107
Website: www.fh.az.gov

Town of Gila Bend, Economic Development
Phone: 928-683-2255
Website: www.gilabendaz.org

City of Glendale Economic Development
Phone: 623-930-2984
Website: <http://www.glendaleaz.com>

Town of Guadalupe
Phone: 480-730-3080
Website: www.guadalupeaz.org

City of Mesa
Phone: 480-644-2211
Website: www.mesaaz.gov

Paradise Valley Chamber of Commerce
Website: <http://www.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

City of Tempe
Phone: 480-858-2395
Website: www.tempe.gov

Local First Arizona
Phone: 602-956-0909
Website: www.localfirstaz.com

Apache Junction Chamber of Commerce
Phone: 480-982-3141
Website: www.ajchamber.com

Greater Phoenix Economic Council
Phone: 602-256-7700
Website: <http://www.gpec.org>

Town of Carefree
Phone: 480-488-3686
Website: <http://www.carefree.org>

Chandler Chamber of Commerce
Phone: 480-963-4571
Website: www.chandlerchamber.com

Fountain Hills Chamber of Commerce
Phone: 480-837-1654
Website: www.fountainhillschamber.com

Town of Gilbert
Phone: 480-503-6912
Website: www.gilbertaz.gov

City of Goodyear
Phone: 623-882-7900
Website: www.goodyearaz.gov

Town of Guadalupe, Economic Development
Phone: 480-730-3080
Website: www.guadalupeaz.org

City of Mesa, Office of Economic Development
Phone: 480-644-3962
Website: mesaaz.gov/business/economic-development

City of Peoria
Phone: 623-773-7642
Website: www.peoriaaz.gov

Town of Queen Creek
Phone: 480-358-3522
Website: www.queencreek.org

City of Scottsdale, Economic Vitality Department
Phone: 480-312-7989
Website: www.ScottsdaleAz.gov

Downtown Tempe Community, Inc.
Phone: 480-921-2300
Website: www.downtowntempe.com

Apache Junction Economic Development
Phone: 480-474-5071
Website: www.ajcity.net

City of Avondale
Phone: 623-333-1000
Website: www.avondale.org

City of Buckeye
Phone: 623-349-6971
Website: www.buckeyeaz.org

Town of Cave Creek
Phone: 480-204-0140
Website: <http://www.cavecreek.org>

City of El Mirage
Phone: 623-972-8116
Website: www.cityofelmirage.org

Town of Gila Bend
Phone: 928-683-2255
Website: www.gilabendaz.org

City of Glendale
Phone: 623-930-2000
Website: www.glendaleaz.com

City of Goodyear, Economic Development Department
Phone: 623-932-3025
Website: <http://develop.goodyearaz.com>

City of Litchfield Park
Phone: 623-640-3778
Website: www.litchfield-park.org

Town of Paradise Valley
Phone: 480-348-3690
Website: www.ci.paradise-valley.az.us

City of Phoenix
Phone: 602-534-9049
Website: www.phoenix.gov

Queen Creek Chamber of Commerce
Phone: 480-888-1709
Website: www.queencreekchamber.org

City of Surprise
Phone: 623-222-3301
Website: www.surpriseaz.gov

City of Tolleson
Phone: 623-474-4998
Website: www.tollesonaz.org

Town of Wickenburg
Phone: 928-668-4547 ext. 9
Website: www.ci.wickenburg.az.us

Town of Youngtown
Phone: 623-933-8286
Website: www.youngtownaz.org

Wickenburg Chamber of Commerce
Phone: 928-684-5479
Website: www.wickenburgchamber.com

**Wickenburg Regional Economic
Development Partnership**
Phone: 928-684-7700
Website: <http://www.wredp.com/>

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.



POPULATION

	2000	2010	2017
Arizona	5,130,632	6,401,569	6,965,897
Pinal County	179,727	376,369	427,603
<i>Incorporated Cities & Towns</i>			
Casa Grande	25,224	48,664	54,866
Apache Junction	31,814	35,828	40,030
Marana	13,556	35,051	45,378
Maricopa	0	43,598	49,550
Queen Creek	4,316	26,448	40,208
Florence	17,054	25,537	25,866
Eloy	10,375	16,657	18,993
Coolidge	7,786	11,855	12,485
Superior	3,254	2,835	3,008
Kearny	2,249	1,947	2,077
Mammoth	1,762	1,425	1,519
Winkelman	443	352	353

Office of Economic Opportunity

AGE DISTRIBUTION

0-14	20.4 %
15-24	11.8 %
25-44	26.6 %
45-64	23.0 %
65+	18.2 %

American Community Survey

DISTANCE TO MAJOR CITIES (FROM FLORENCE)

Phoenix	61 miles
Tucson	70 miles
Los Angeles	435 miles
San Diego	380 miles
Las Vegas	356 miles

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,312,720	4.9 %
Pinal County	168,806	5.0 %
<i>Incorporated Cities & Towns</i>		
Casa Grande	24,013	5.3 %
Apache Junction	14,711	6.2 %
Marana	22,163	3.6 %
Maricopa	23,833	4.8 %
Queen Creek	17,775	3.5 %
Florence	3,390	5.3 %
Eloy	3,773	6.4 %
Coolidge	4,937	7.1 %
Superior	1,306	5.0 %
Kearny	992	3.0 %
Mammoth	551	8.7 %
Winkelman	142	4.9 %

Office of Economic Opportunity

EMPLOYMENT BY SECTOR (IN THOUSANDS)

Education, health care & social assistance	30.0	21.3 %
Retail trade	16.6	11.7 %
Arts, entertainment, food & recreation services	15.0	10.7 %
Professional, scientific, & administrative services	13.9	9.9 %
Manufacturing	13.2	9.4 %
Public administration	12.2	8.6 %
Finance, insurance & real estate	8.9	6.3 %
Construction	8.6	6.1 %
Transportation, warehousing, & utilities	7.1	5.0 %
Other services, except public administration	5.8	4.1 %
Agriculture, forestry, fishing, hunting, & mining	4.8	3.4 %
Wholesale trade	2.5	1.8 %
Information	2.4	1.7 %

American Community Survey

PROPERTY TAX

	Schools	City/Fire	County	Total
Apache Junction (Pinal County)	5.44	3.47	7.47	16.38
Casa Grande	6.80	1.63	7.47	15.90
Coolidge	5.37	1.93	7.47	14.77
Eloy	9.39	1.23	7.47	18.09
Florence	5.72	1.12	7.47	14.31
Kearny	5.30	2.25	7.47	15.01
Mammoth	5.86	2.36	7.47	15.69
Marana (Pinal County)	0.00	0.00	7.47	7.47
Maricopa	5.95	4.91	7.47	18.33
Queen Creek (Pinal County)	0.00	0.00	7.47	7.47
Superior	7.37	7.34	7.47	22.18
Winkelman (Pinal County)	0.00	0.00	7.47	7.47

Arizona Dept. of Revenue & Arizona Tax Research Association

SALES TAX / TRANSACTION PRIVILEGE TAX

	City	County	State	Total
Apache Junction (Pinal County)	2.40%	1.60%	5.60%	9.60%
Casa Grande	2.00%	1.60%	5.60%	9.20%
Coolidge	3.00%	1.60%	5.60%	10.20%
Eloy	3.00%	1.60%	5.60%	10.20%
Florence	2.00%	1.60%	5.60%	9.20%
Kearny	3.00%	1.60%	5.60%	10.20%
Mammoth	4.00%	1.60%	5.60%	11.20%
Marana (Pinal County)	2.50%	1.60%	5.60%	9.70%
Maricopa	2.00%	1.60%	5.60%	9.20%
Queen Creek (Pinal County)	2.25%	1.60%	5.60%	9.45%
Superior	4.00%	1.60%	5.60%	11.20%
Winkelman (Pinal County)	3.50%	1.60%	5.60%	10.70%

Arizona Dept. of Revenue & Arizona Tax Research Association

County Profile for

Pinal County, Arizona

ARIZONA
COMMERCE AUTHORITY

CONTACT INFORMATION

Arizona Commerce Authority

Phone: 602-845-1200

Website: www.azcommerce.com

Pinal County Economic Development

Phone: 520-866-6664

Website: pinalcountyaz.gov

Greater Casa Grande Chamber of Commerce

Phone: 520-836-2125

Website: casagrandechamber.org

Coolidge Chamber of Commerce

Phone: 520-723-3009

Website: www.coolidgechamber.org

Town of Florence

Phone: 520-868-7549

Website: www.florenceaz.gov

Town of Mammoth

Phone: 520-487-2331

Website: <http://townofmammoth.us/>

Marana Chamber of Commerce

Phone: 520-682-4314

Website: www.maranachamber.com

Town of Queen Creek

Phone: 480-358-3522

Website: www.queen creek.org

Town of Superior

Phone: 520-689-5753

Website: www.superior-arizona.com

Gila County Community Development

Phone: 928-402-4224

Website: www.gilacountyaz.gov

Local First Arizona

Phone: 602-956-0909

Website: www.localfirstaz.com

Apache Junction Chamber of Commerce

Phone: 480-982-3141

Website: www.ajchamber.com

Access Arizona

Phone: 520-836-6868

Website: accessarizona.org

City of Eloy

Phone: 520-466-9201

Website: www.ci.eloy.az.us

Town of Kearny

Phone: 520-363-5547

Website: www.townofkearny.com

Town of Marana

Phone: 520-382-1938

Website: www.marana.com

City of Maricopa

Phone: 520-316-6852

Website: www.maricopa-az.gov

Queen Creek Chamber of Commerce

Phone: 480-888-1709

Website: www.queen creekchamber.org

Superior Chamber of Commerce

Phone: 602-625-3151

Website: www.superiorarizonachamber.org

Apache Junction Economic Development

Phone: 480-474-5071

Website: www.ajcity.net

City of Casa Grande

Phone: 520-421-8636

Website: casagrandeaz.gov

City of Coolidge

Phone: 520-723-6075

Website: www.coolidgeaz.com

Eloy Chamber of Commerce

Phone: 520-466-3411

Website: www.EloyChamber.com

Copper Basin Chamber of Commerce

Phone: 520-363-7607

Website: www.copperbasinaz.com

Pima County Economic Development

Phone: 520-724-8126

Website: www.webcms.pima.gov

Maricopa Chamber of Commerce

Phone: 520-568-9573

Greater Phoenix Economic Council

Phone: 602-256-7700

Website: <http://www.gpec.org>

Town of Winkelman

Phone: 520-356-7854

Website: <http://winkelmanaz.com/>

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.

POPULATION

	2000	2010	2017
Arizona	5,130,632	6,401,569	6,965,897
Pima County	843,746	981,168	1,026,099
<i>Incorporated Cities & Towns</i>			
Tucson	486,699	520,795	537,634
Marana	13,556	35,051	45,378
Oro Valley	29,700	40,984	44,517
Sahuarita	3,242	25,347	29,049
South Tucson	5,490	5,672	5,664

*Office of Economic Opportunity***AGE DISTRIBUTION**

0-14	18.1 %
15-24	15.8 %
25-44	23.7 %
45-64	24.6 %
65+	17.8 %

*American Community Survey***DISTANCE TO MAJOR CITIES (FROM TUCSON)**

Phoenix	111 miles
Los Angeles	488 miles
San Diego	410 miles
Las Vegas	409 miles

LABOR FORCE

	Labor Force	Unemployment Rate
Arizona	3,312,720	4.9 %
Pima County	475,622	4.5 %
<i>Incorporated Cities & Towns</i>		
Tucson	254,150	4.7 %
Marana	22,163	3.6 %
Oro Valley	19,182	4.3 %
Sahuarita	12,242	3.9 %
South Tucson	2,225	10.9 %

*Office of Economic Opportunity***EMPLOYMENT BY SECTOR (IN THOUSANDS)**

Education, health care & social assistance	108.1	25.2 %
Professional, scientific, & administrative services	52.7	12.3 %
Retail trade	49.9	11.7 %
Arts, entertainment, food & recreation services	49.6	11.6 %
Manufacturing	28.7	6.7 %
Public administration	27.7	6.5 %
Construction	26.9	6.3 %
Finance, insurance & real estate	24.6	5.7 %
Other services, except public administration	22.8	5.3 %
Transportation, warehousing, & utilities	17.6	4.1 %
Wholesale trade	7.5	1.8 %
Information	6.8	1.6 %
Agriculture, forestry, fishing, hunting, & mining	5.2	1.2 %

*American Community Survey***PROPERTY TAX**

	Schools	City/Fire	County	Total
Marana (Pima County)	6.44	0.00	7.90	14.34
Oro Valley	5.54	0.00	7.90	13.44
Sahuarita	7.42	2.10	7.90	17.42
South Tucson	7.18	0.25	7.90	15.33
Tucson	7.18	1.60	7.90	16.67

*Arizona Dept. of Revenue & Arizona Tax Research Association***SALES TAX / TRANSACTION PRIVILEGE TAX**

	City	County	State	Total
Marana (Pima County)	2.50%	0.50%	5.60%	8.60%
Oro Valley	2.50%	0.50%	5.60%	8.60%
Sahuarita	2.00%	0.50%	5.60%	8.10%
South Tucson	4.50%	0.50%	5.60%	10.60%
Tucson	2.60%	0.50%	5.60%	8.70%

Arizona Dept. of Revenue & Arizona Tax Research Association

County Profile for

Pima County, Arizona



CONTACT INFORMATION

Arizona Commerce Authority

Phone: 602-845-1200

Website: www.azcommerce.com

Pima County Economic Development

Phone: 520-724-8126

Website: www.webcms.pima.gov

Town of Sahuarita

Phone: 520-822-8818

Website: www.ci.sahuarita.az.us

Local First Arizona

Phone: 602-956-0909

Website: www.localfirstaz.com

Marana Chamber of Commerce

Phone: 520-682-4314

Website: www.maranachamber.com

City of South Tucson

Phone: 520-792-2424

Website: www.southtucson.org

Town of Marana

Phone: 520-382-1938

Website: www.marana.com

Town of Oro Valley

Phone: 520-229-4714

Website: www.orovalleyaz.gov

City of Tucson

Phone: 520-791-4204

Website: <http://cms3.tucsonaz.gov>

Now
Leaving

Arizona



GLOSSARY



9(D) DEBT

A debt owed to the federal government related to agriculture irrigation systems.

A2x

Access to Excess policy

ACC

Arizona Corporation Commission

ACCRUAL BASIS OF ACCOUNTING

Revenue is recorded when earned and expenses recognized in the period incurred, without regard to the time of receipt or payment of cash (e.g., accrue if work is done but invoice not received).

ACM

Asbestos Containing Material

ACRE-FOOT (A/F)

A unit of water volume which covers an area of one acre to a depth of one foot and equals 43,560 cubic feet, 1,233 cubic meters or 325,851 gallons.

ACTIVE MANAGEMENT AREA (AMA)

An Arizona geographical region subject to regulation under the Groundwater Management Act.

AD VALOREM TAX

A levy upon the assessed valuation of property within the District's service area (Maricopa, Pima and Pinal counties).

ADA

Americans with Disabilities Act

ADEQ

Arizona Department of Environmental Quality

ADWR

Arizona Department of Water Resources

A/F

Acre-feet

AFRP

Aqua Fria Recharge Project

AG CONSIDERATION

The Fixed OM&R portion of the CAWCD water delivery rate that must be paid for by CAWCD for Ag Settlement Pool participants as part of the AWSA.

AG SETTLEMENT

Set amount of excess water for Agricultural use through 2030 as part of the AWSA.

AMA

Active Management Area

AMORTIZATION

The repayment of loan principal by installment payments.

AMWUA

Arizona Municipal Water Users Association

APA

Arizona Power Authority

AQUEDUCT

A pipe or channel for transporting water from a remote source, usually by gravity.

AQUIFER

A body of rock or sediments that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ)

A department of state government responsible for groundwater quality protection, water quality standards, and wastewater reclamation and reuse permits.

ARIZONA DEPARTMENT OF WATER RESOURCES (ADWR)

A department of state government responsible for water management and administration of water-related programs within the State.

ARIZONA WATER BANKING AUTHORITY (AWBA)

A specially created state agency that stores unused Arizona apportionment of Colorado River water in recharge sites around the state to help meet future needs.

ARS

Arizona Revised Statute

ASRS

Arizona State Retirement System

ASSESSED VALUATION

The dollar value assigned to a property for purposes of measuring applicable taxes.

ATS

Automatic Transfer Switches

AWBA

Arizona Water Banking Authority

AWSA

Arizona Water Settlements Act

B**BALANCED BUDGET**

A budget in which estimated revenues equal estimated expenditures.

BDF

Basin Development Fund

BIA

Bureau of Indian Affairs

“BIG R”

A CAWCD rate component for major repairs and replacements of capital equipment.

BLK

Black Mountain Pumping Plant

BRD

Brady Pumping Plant

BRW

Brawley Pumping Plant

BSH

Bouse Hills Pumping Plant

BUREAU OF RECLAMATION (BOR, USBR, BUREAU OF RECLAMATION)

A branch of the Department of the Interior responsible for the construction of the CAP.

C**CAGR**

Central Arizona Groundwater Replenishment District

CAP

Central Arizona Project

CAPITAL BUDGET

Fixed assets and capital projects to be acquired or constructed during the budget period.

CAPITAL CHARGES

A charge assessed to M&I subcontractors to assist with the District's annual repayment obligation to the federal government for the reimbursable construction costs of the CAP.

CAPITAL EXPENDITURE

Expenditures that result in the acquisition of, or addition to, fixed assets including land, buildings, improvements, machinery and equipment.

CAPITAL PROJECT

Projects meeting a minimum threshold that: (a) increase the useful life of the asset by three years or more; (b) constitute replacement of the majority of the asset; or (c) enhance or upgrade the asset.

CAPTIVE INSURANCE COMPANY (CAPTIVE)

A closely held insurance company whose insurance business is primarily supplied by and controlled by its owner(s).

CAWCD

Central Arizona Water Conservation District

CBM

Condition-Based Monitoring

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD)

Created by the State Legislature as part of CAWCD in 1993 to replenish groundwater in Pima, Pinal and Maricopa counties in order to provide a mechanism for water providers and landowners to demonstrate an Assured Water Supply.

CENTRAL ARIZONA PROJECT (CAP)

A 336-mile long water conveyance system built to carry water from the Colorado River to central and southern Arizona; also the term “CAP” is used to refer to the CAWCD.

CENTRAL ARIZONA WATER CONSERVATION DISTRICT (CAWCD OR DISTRICT)

The multi-county water conservation district established as a special taxing district for the purpose of contracting with the United States for the delivery of CAP water and the repayment of the reimbursable share of construction costs.

CIP

Capital Improvement Program

CONJUNCTIVE USE

The planned and coordinated use of surface water and groundwater supplies to improve water supply reliability.

CONTROL CENTER

Manned 24 hours per day, the Control Center controls the entire CAP system using the SCADA computer system.

**DC**

Direct Current

DCP

Drought Contingency Plan

DEBT SERVICE

Principal and interest payments on outstanding bonds.

DECOMMISSION

Planned shutdown or removal of a building, equipment, plant, etc., from operation or usage.

DEPRECIATE

To allocate the cost of an asset over its service, or useful life.

DESALINATION

Specific treatment process to demineralize sea water or brackish (saline) water for use.

DISPLACEMENT (ENERGY)

The process whereby energy available is sold at a location with a higher market price and replacement energy is purchased at a location with a lower market price.

DVOS

Discharge Valve Operating System

**EFFLUENT**

Water that has been collected in a sanitation sewer for subsequent treatment in a facility that is regulated as a sewage system, disposal plant or wastewater treatment facility.

EIS

Environmental Impact Statement

ELIMINATION

An accounting method used to simplify the consolidated financial statement of affiliated companies. Though removal of sales and expenses between affiliated entities.

EM

Electromechanical

ENTERPRISE FUND

A fund established to account for operations financed and operated in a manner similar to private business enterprises, wherein the stated intent is that the costs of providing goods and services be financed from revenues recovered primarily through user fees.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

A federal agency formed by Congress in 1970 in response to growing public demand for cleaner water, air and soil.

EROC

Energy Risk Oversight Committee

EXCESS WATER

All Project Water that is in excess of the amounts used, resold, or exchanged pursuant to long-term contracts and subcontracts for Project Water service.

EXPENDITURE

The outflow of funds paid or to be paid for an asset obtained or goods and services obtained regardless of when the expense is actually paid.

EXTRAORDINARY MAINTENANCE PROJECT

Repair or maintenance to an existing facility that has a cost of \$2 million or more and maintains the original condition or level of utility.

F**FACILITY USE CHARGES**

A charge assessed to non-subcontractors to assist with the District's annual repayment obligation to the federal government for the reimbursable construction costs of the CAP.

FERC

Federal Energy Regulatory Commission

FEDERAL WATER

Water used for federal purposes (e.g., Tribal, construction water, etc.).

FIRMING

The act of securing Colorado River water supplies by recharging and storing available excess supply in order to meet anticipated future declared shortages on the Colorado River.

FIXED ASSETS

Assets that are used in a productive capacity, have physical substance, are relatively long-lived, and provide future benefit, which is readily measurable, such as land, buildings, machinery, furniture, vehicles, other equipment and capital projects.

FULL-TIME EQUIVALENT (FTE)

The conversion of a position to a decimal based on the number of hours worked per year - For example, a full-time position is based on 2,080 hours per year and would be equivalent to 1.0 FTE. A part-time position working 20 hours per week would be equivalent to 0.5 of a full-time position.

FUND

A fiscal and accounting entity created by a government for the purpose of tracking the finances of a particular activity, group of activities or revenue source.

FUND BALANCE

The difference between assets and liabilities. Also referred to as "net position."

G**GAAP**

Generally Accepted Accounting Principles

GASB

Governmental Accounting Standards Board

GENERAL OBLIGATION DEBT

Bonds that are secured by the full faith and credit of the issuer and secured by a pledge of the issuer's ad valorem taxing power.

GIS

Geographic Information System

GROUNDWATER

Water that has seeped beneath the earth's surface, is stored in aquifers, and is drawn to the surface through pumping.

GROUNDWATER SAVINGS FACILITY (GSF)

Water exchange program where surface water is delivered to a water user traditionally reliant upon groundwater; through replacing the use of groundwater, the groundwater is saved and thereby counted as recharge.

GSF

Groundwater Savings Facility

GSP

Gross State Product

GWh

Gigawatt hour

H**HMRP**

Hieroglyphic Mountains Recharge Project

HOOVER CAPACITY CHARGE

A charge assessed to assist in the repayment of upgrading the Hoover power plant to increase generating capacity at the plant.

HOOVER 4.5 MIL SURCHARGE

A surcharge established by the 1984 Hoover Power Plant Act on energy from Hoover power plant that is sold in Arizona, of which the revenues generated from this surcharge are credited to the Lower

Colorado River Basin Development Fund and used to offset the District's annual federal repayment obligation.

HSY

Hassayampa Pumping Plant

HVAC

Heating, Ventilation and Air Conditioning

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



LHQ

Little Harquahala Pumping Plant

LINE ITEM

A specific detailed item of revenue or expense

LOWER COLORADO RIVER BASIN DEVELOPMENT FUND (LCRBDF OR BDF)

A special fund established within the United States Treasury to account for all revenues and expenses associated with CAP.

LIMITED PROPERTY VALUE (LPV)

A value calculated according to a statutory formula, designed to reduce the effect of inflation on property taxes.

LOTO

Lock Out Tag Out

LRFP

Long Range Financial Plan

LSCR

Lower Santa Cruz Recharge Project



M&I

Municipal and Industrial

MASTER REPAYMENT CONTRACT

A contract entered into between the Bureau and the CAWCD for the delivery of water and repayment of costs of the CAP.

MATS

Mercury Air Toxic Standard

MEMBER LAND (ML)

An individual subdivision that has met the qualifications for membership in the CAGR

MEMBER SERVICE AREA (MSA)

The service area of a municipal water provider that has met the qualifications for membership in the CAGR.

MOU

Memorandum of Understanding

MSCP - MULTI-SPECIES CONSERVATION PROGRAM

Program with a goal to balance the Lower Basin use of Colorado River water resources with conservation of native species and their habitats. The program, operated in partnership with the USBR, as well as water users in Arizona, California, and Nevada, is creating opportunities for these species to persist and survive.

MVA

Megavolt ampere

MWh

Megawatt hour

MWP

Mark Wilmer Pumping Plant

**NET ASSESSED VALUE (NAV)**

The dollar value assigned to a property to measure applicable taxes that takes comparable home sales and inspections into consideration.

NEPA

National Environmental Protection Act

NET POSITION

The difference between assets and liabilities

NGS - NAVAJO GENERATING STATION

The NGS was a coal-fired electrical generating station that supplied energy to pump water through the Central Arizona Project and served electric customers in Arizona, Nevada and California, it was decommissioned in 2019.

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.

NWD

New Waddell Dam

**O&M**

Operations and Maintenance

OEM

Original equipment manufacturer

OM&R

Operations, Maintenance and Replacement

OM&R RECONCILIATION

An analysis performed to determine the actual cost to deliver CAP water on a per acre-foot basis (reconciled rate) compared to the water rate set by the Board in advance of delivery.

OPERATING BUDGET

That portion of the budget that pertains to daily operations that provides basic services (e.g., salaries, materials, travel, services, etc.).

OPERATING PROJECT

A routine project that maintains or restores the original condition or level of utility and is expensed as it is completed.

OPERATION, MAINTENANCE, AND REPLACEMENT (OM&R)

Costs incurred for the operation, maintenance, and replacement of the CAP system.

OSHA

Occupational Safety and Health Administration

OTHER EXCESS

CAP Excess water after the Ag Settlement Pool has been satisfied.

**PBD**

Performance Based Design

PERMANENT SERVICE RIGHT (PSR)

Represents the District's right to operate and maintain the CAP, though title to the Project remains with the federal government.

PIC

Picacho Pumping Plant

PLC

Programmable Logic Controller

PM

Preventative Maintenance

PMRRP

Pima Mine Road Recharge Project

POTABLE WATER

Water having no impurities present in amounts sufficient to cause disease or harmful physiologic effects; also conforms in its bacteriological and chemical quality to the requirements of the U.S. Environmental Protection Agency's Safe Drinking Water Act or meets the regulations of other agencies having jurisdiction.

PRIORITY

The order in which Colorado River water and CAP water is delivered. The highest or senior priority water is delivered first and the lowest or junior priority water is delivered last.

PUMPING PLANT

CAP facilities that lift water to the next elevation in the canal. There are 13 pumping plants in the CAP system. The largest is the Mark Wilmer Pumping Plant on the Colorado River at Lake Havasu.

PSC

Project Steering Committee, which is comprised of a cross-functional management team that has been established to evaluate, prioritize and oversee large projects.

**RATE**

A charge or payment calculated in relation to a particular sum or quantity (e.g., water rates).

RECHARGE

The process of replenishing underground aquifers with water by putting water in basins so it can percolate through the soil. Direct recharge can be accomplished via surface basins, streambeds or injection wells. Indirect or in-lieu recharge occurs when another water supply, such as the CAP water, is used instead of groundwater, thereby saving the groundwater for use at a later time.

RECOVER

To pump water that was recharged or stored in the aquifer at an earlier date.

RED

Red Rock Pumping Plant

RENEWABLE GROUNDWATER

The amount of groundwater naturally replenished that could be annually withdrawn without causing significant water-level declines.

REPAYMENT STIPULATION (OR STIPULATION)

The 2003 agreement between the United States and CAWCD, approved by the U.S. District Court, that resolved litigation regarding CAWCD's repayment obligation for the CAP and other matters.

REPLENISHMENT

Replacement of groundwater supplies that have been pumped.

RESERVE

An account established with the Arizona State Treasurer to invest funds, which can be categorized as designated, assigned, restricted or unrestricted.

RESERVOIR

A man-made body of water where water is stored for future use. The CAP system has three storage reservoirs: Lake Pleasant, Black Mountain Reservoir and Reach 1. The Lower Colorado River Basin reservoir is Lake Mead and the Upper Colorado River Basin is Lake Powell.

REVENUE BOND

A type of bond that is backed solely by the revenues from a specific source.

RIPARIAN RIGHT

A water right based on the ownership of land adjacent to a river or waterway.

**SAN**

Sandario Pumping Plant

SCADA

Supervisory Control & Data Acquisition

SGL

Salt Gila Pumping Plant

SHAPING (ENERGY)

The process of shifting pumping activity times to allow for the sale of energy when prices are higher and the purchase of replacement energy when prices are lower.

SHORTAGE

A reduction in the amount of Colorado River available to the Lower Basin based on projected water levels in Lake Mead at the end of the year.

SMRP

Superstition Mountains Recharge Project

SNX

San Xavier Pumping Plant

SNY

Snyder Hill Pumping Plant

STANDARD OPERATING PROCEDURES (SOP)

A comprehensive single-source document covering all aspects of operation and maintenance and emergency procedures.

SRP

Salt River Project

STORAGE CAPACITY

The maximum volume of water that can be impounded by a reservoir when there is no discharge of water.

STORAGE FACILITY

Refers to either a groundwater savings facility or an underground storage facility.

STORED WATER

Water that is stored underground for subsequent recovery pursuant to an underground water storage, savings, and replenishment permit.

STATE DEMONSTRATION PROJECT

A project for the storage of excess CAP water at an underground storage facility.

STRUCTURAL DEFICIT

Commitments to the Lower Basin states and Mexico for more water from the Colorado River each year than the River can reliably produce, depleting levels in Lake Powell and Lake Mead, and increasing the likelihood of a declared shortage.

SUBCONTRACT

Long-term contract among the CAWCD, Bureau and a water customer for the delivery of CAP water.

SUBSIDENCE

Sinking elevation of the ground surface; the process may occur over an aquifer that is over drafted.

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

Computer system used by Water Operations to operate the CAP.

SURCHARGE

An additional levy added to a charge.

SURPLUS WATER

Colorado River water declared as surplus by the Secretary of the Interior.

SURFACE WATER

Water located on the earth's surface, in rivers, streams, lakes, and reservoirs.

SYSTEM USE AGREEMENT (SUA)

Is a legal framework that allows the CAP canal to be used to transport water other than our normal Colorado River supplies (non-project water), referred to as wheeling.

T**TDRP**

Tonopah Desert Recharge Project

TUNNELS

The CAP system includes 4 tunnels that move water through mountainous terrain: Buckskin Mountain, Burnt Mountain, Agua Fria and Tucson.

TURNOUT

Features of the CAP aqueduct where water is delivered from the aqueduct to a CAP water user. Includes measuring device or meter that documents the amount of water delivered to each customer.

TWN

Twin Peaks Pumping Plant

U**UHF**

Ultra-high filtration

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.

UPPER BASIN STATES

The Colorado River Basin was divided into the Upper Basin and Lower Basin in 1922. The Upper Basin states are Colorado, Utah, New Mexico and Wyoming.

USBR - U.S. BUREAU OF RECLAMATION

A division of the federal government led by the U.S. Secretary of the Interior. Established in 1902, USBR is most notably known for water infrastructure in the Western United States.

V**VPP**

Voluntary Protection Program is a workplace Occupational Safety and Health Administration (OSHA) designation.

**WAD**

Waddell Pumping Plant

WAPA

Western Area Power Administration

WATER O&M CHARGES

Revenues collected from customers that offset the specifically identified expenses associated with the delivery of water.

WATER RIGHTS

A property right to designate specific beneficial use of a particular amount of water with a specified priority date.

WATER STORAGE TAX

Tax levied under ARS § 48-3715 which authorizes CAP to levy a Water Storage tax, currently up to \$0.04 cents per \$100 of net assessed valuation.

WATER TABLE

The top of the water surface in the saturated area of an unconfined aquifer.

WATERSHED

The region or land area drained by a river; also called a drainage basin.

WHEELED WATER OR WHEELING

Water transferred between two agencies whereby one agency uses its system infrastructure to convey water owned by another agency.





Bouse Pumping Plant



CENTRAL ARIZONA PROJECT

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Phoenix, Arizona

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www.cap-az.com

