



# Budget

CENTRAL ARIZONA PROJECT • 2016 | 2017 BIENNIAL



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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 2016 / 2017 Biennial Budget in one cohesive document. The budget document includes the following sections:

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

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

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

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

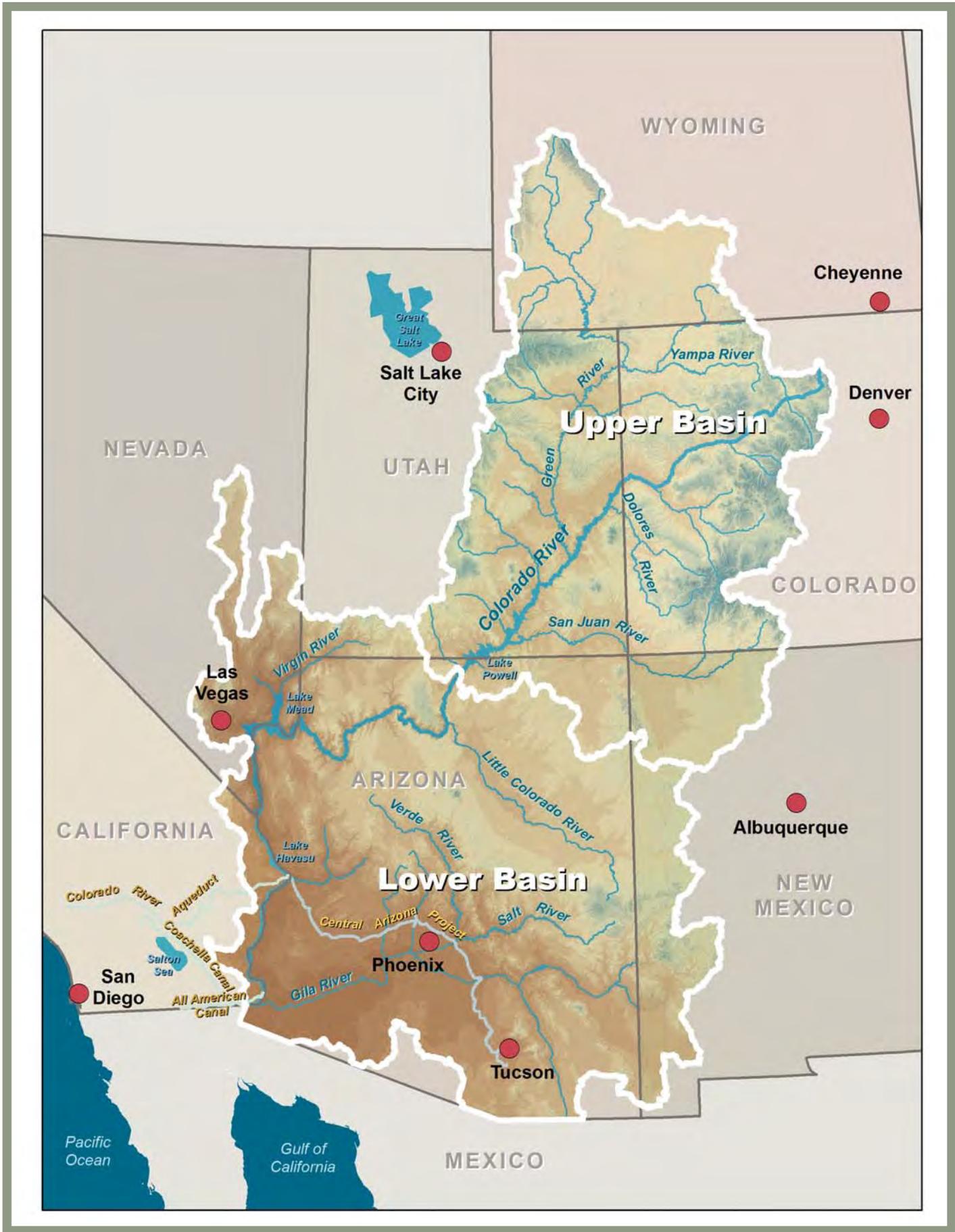
**Operating Budget** provides the budget information for the day-to-day operations of the District for the General Fund, CAGR Account, Supplemental Water Account and Captive Insurance Fund.

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

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

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





## *TO OUR BOARD, CUSTOMERS AND CONSTITUENTS*



The 2016 / 2017 Biennial Budget is the sixth budget we have prepared since the Central Arizona Water Conservation District (CAWCD or District) Board of Directors (Board) adopted a two-year financial planning cycle, implemented in 2005. The two-year process has worked well for us, and allows the Board and staff to concentrate primarily on the budget during the odd years and address other financial planning matters, such as strategic planning, reserves and financing strategy in the even years. The work done during one part of the cycle complements the work done in the other part, with the decisions made and information created in one process becoming the inputs and assumptions for the processes in alternate years and vice-versa. Our biennial budgets identify our goals and objectives, key issues and challenges, opportunities to explore and the direction of future initiatives. Under the policy guidance of the CAWCD Board and with the collaboration of Central Arizona Project (CAP) customers and stakeholders, we are confident that our stewardship of Arizona's critical water and power supplies will be successfully achieved.

Our Board most recently reviewed and updated its Strategic Plan in 2010. This plan was augmented by relevant findings from two studies to evaluate our maintenance organization and our management practices, and by extensive input from our employees and management. All of this was merged into one comprehensive plan: the *2011 CAP Integrated Strategic Plan*. The Plan has been tracked and refined continuously since it was created. The Board plans to take up the next revision of the Strategic Plan beginning in late 2015, about the same time the 2016 / 2017 budget process is being completed.

As with previous CAP budgets, the *CAP Integrated Strategic Plan* is the basis for the 2016 / 2017 Biennial Budget. The Plan identifies the strategic issues, objectives and associated action plans that will carry us into the future. These action plans are organized under six Key Result Areas (KRAs):

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

While all of the KRAs are critical for CAP, **Water Supply** has moved to the forefront. For many years, CAP has placed a significant emphasis on Colorado River water issues on a regional, national and international level – developing agreements with the seven Basin States and Mexico to better manage the river, address the risks posed by climate change, manage salinity, further efforts to augment river supplies and prepare for an eventual shortage on the Colorado River. The beginning of 2015 marked the 16<sup>th</sup> straight year of drought in the Colorado River basin. The levels of Lake Powell and Lake Mead, the two primary Colorado River reservoirs, were continuing to drop and projections by the Bureau of Reclamation (BOR or Bureau) indicated that a first-ever shortage declaration was likely in 2016. However, due to

conservation measures put into place by CAP and others to help preserve the level of Lake Mead and a wet May in the upper Colorado River basin, shortage in 2016 was averted. The probability of shortage still exists in 2017 and beyond, so the efforts that have been successful so far must continue. If a shortage is declared, CAP would initially see reduced diversions of 320,000 acre-feet, approximately 20% of its current supply. Deliveries to



CAP's Indian, and Municipal and Industrial (M&I) customers would not be impacted by such a shortage; however, there would be less water available for CAP's non-Indian agricultural (NIA) pool, the Central Arizona Groundwater Replenishment District (CAGRDR), the Arizona Water Banking Authority (AWBA) and other excess water customers. Shortage could also drive CAP's fixed-cost rates up as deliveries are reduced. If shortage persists, deeper reductions to CAP's diversions could occur. If and when the drought ends and normal hydrology returns there will still be a "structural deficit" in the lower basin, as the Colorado River is over allocated. CAP remains actively engaged with the Bureau, the other Colorado River Basin States and Mexico to address the issues of drought and shortage.

**Power** has also consumed much of our attention over the last several years and will continue to do so, as we address critical issues facing the Navajo Generating Station (NGS), which supplies more than 90% of the energy needed to run the CAP system. The U.S. Environmental Protection Agency's (EPA) regional haze (NOx) rulemaking for NGS - often referred to as a "Best Available Retrofit Technology" (BART) rule was successfully finalized in 2014 with the adoption of a "Better than BART" proposal from a Technical Working Group (TWG) composed of a diverse group of NGS stakeholders as the final rule. Renegotiations of the land lease and coal supply agreements (which expire in 2019) and NGS ownership changes are continuing, and are necessary to provide certainty that NGS can continue as a source of reliable, low-cost energy through its design lifetime (2044). Because the Bureau is a participant in NGS, the land lease and coal supply agreements will require an extensive National Environmental Policy Act (NEPA) compliance review. Other regulatory actions have taken place that will also impact NGS operations. Most recently, the EPA's

Clean Power Plan (CPP), which regulates CO<sub>2</sub> emissions, was published and the potential impacts on NGS are being evaluated. We are hopeful that the work done on BART will satisfy most if not all of the CPP requirement. While we are actively working to protect CAP's interests in the plant today, we are also exploring alternatives that may be available when the time comes to replace NGS. CAP is also taking steps to enhance the reliability of its transmission network and to improve its access to the electricity market to better manage its power resources, including two transmission lines currently being constructed and a third project under development.

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

additional supplies necessary to keep up as the replenishment obligation grows over time. Through 2015, CAGRDR has successfully acquired over 36,500 acre-feet of annualized long-term supplies, sufficient to meet the current replenishment obligation, and has programs in place to identify and acquire additional supplies. After an extensive Board-guided stakeholder process,



CAGRDR's next 10-year Plan of Operation was completed and submitted by the 2014 year-end deadline, and approval of the plan was received in August 2015. The new plan will take effect in 2016.

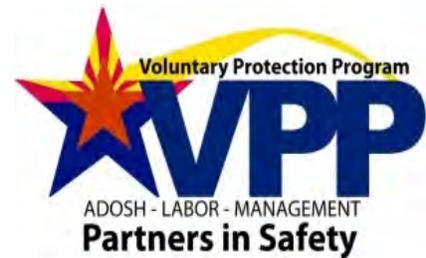


In 2015, we celebrated the 30<sup>th</sup> anniversary of the first CAP water deliveries. We are justifiably proud of the enormous economic benefit to the state of Arizona and the excellent and reliable service CAP has provided over the years, and we recognize that our ability to continue to do so depends on the readiness of the workforce and infrastructure. That is what the **Project Reliability** KRA is all about. Maintaining reliable deliveries by avoiding and minimizing the consequences of unplanned outages is dependent on cradle-to-grave asset management; this includes reliability-centered maintenance, condition-based monitoring and expanded predictive maintenance programs. Our 30<sup>th</sup> anniversary also brings with it the need to replace many of our system-wide assets, which

will require careful management of our financial and human resources. Our readiness also depends on effectively managing the knowledge and skills of our workforce. In 2015, in addition to the leadership development and Personal and Organizational Development (POD) programs and enhanced new employee orientation, we launched our Supervisor Academy, a comprehensive training program for new supervisors. In 2015, we received re-certification as a Voluntary Protection Program (VPP) STAR workplace occupational safety and health designee, one of only 34 (the only local government and the only utility) in Arizona. Safety will remain one of our core initiatives.



The **Finance** KRA encompasses maintaining CAP's financial health, managing CAP's assets and financing major expenditures. Managing challenges in these areas go hand in hand with the initiatives in the other KRAs, including planning for capital expenditures related to our aging infrastructure, water supply acquisition, uncertainties and rising costs at NGS and programs to respond to drought and mitigate shortage. In 2013, we restructured our reserves and water-pricing strategies, and raised property taxes for the first time in over 25 years in anticipation for future exposures. We have developed innovative approaches with our customers to preserve the level in Lake Mead while offering financial incentives that help alleviate increasing costs. Flexible rate-setting policies and rate-stabilization mechanisms have been put into place to help soften the impacts of cost increases to customers when shortage occurs. CAP is going to the municipal bond market in 2015 for the first time in 14 years to finance some of our large transmission projects to smooth out capital expenditures and reduce rate volatility. This important tool will also be available for our CAGRDR water supply program and certain expenditures related to NGS. Finally, we are very pleased to report that our 2016 / 2017 budget reflects an initiative to keep our headcount and the controllable expenses of our operating departments flat from 2015 levels. CAP will continue to closely manage financial programs and resources to deal with the challenges that



face us and complete the important work we have to do.

Everything we do at CAP is wrapped under the final KRA of **Leadership and Public Trust**. We have an extraordinary responsibility in this area, since we operate and maintain a critical infrastructure project that generates over \$100 billion of economic benefit to Arizona every year, which is a significant portion of the state's Gross Domestic Product (GDP). In the midst of the many pressing challenges facing CAP, ongoing transparency and communications with our



Board, customers, constituents and other stakeholders is paramount. As an organization that serves the regions where more than 80% of the state's population lives, CAP places great value in building and maintaining public trust in our leadership and management decisions. CAP informs and educates its customers and stakeholders to ensure reliable water supplies for future generations and sustain Arizona's economy. During this biennial budget, we will continue to identify and communicate specific information regarding CAP's priorities and increasing opportunities for our Board and staff to convey focused messages to the communities we serve.



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



We take pride in our budget and business plan publication, as we have throughout the years, and we are pleased to share this latest edition with all of you. Our ability to excel in this area depends on the continued support and guidance of our Board and on the feedback we receive from our customers, constituents and employees. We believe we have developed a strong, reliable plan that will serve our

community well in the near term as well as into the future.

*Theodore C. Cooke*  
Interim General Manager

# THE CAWCD BOARD OF DIRECTORS



## Maricopa County

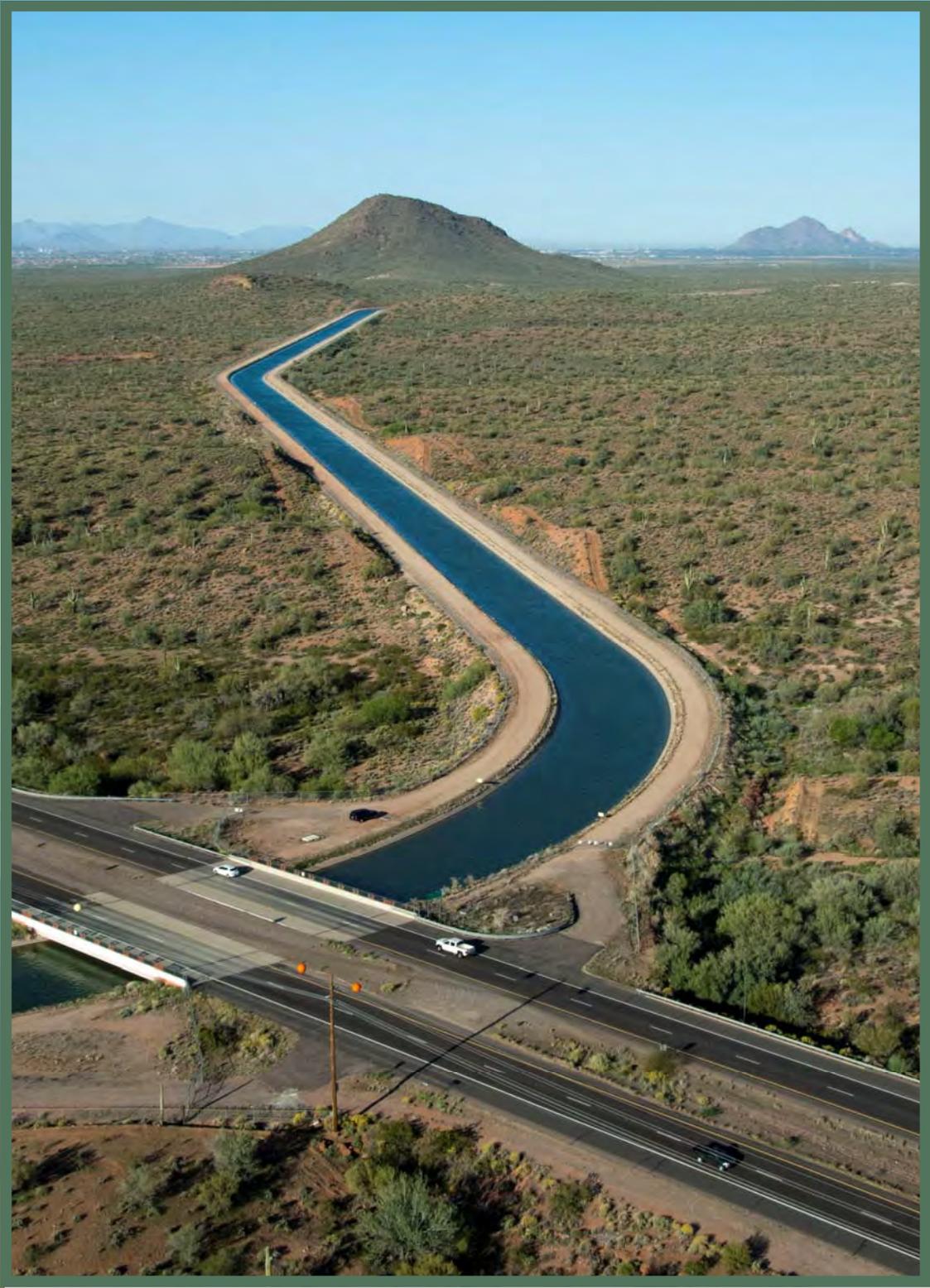
- A. Lisa Atkins Term Ending 2018
- B. Gayle Burns Term ending 2016
- C. Guy Carpenter Term ending 2018
- D. Frank Fairbanks Term ending 2016
- E. Terry Goddard Term ending 2018
- F. Jim Holway, Ph.D. Term ending 2016
- G. Mark Lewis Term ending 2016
- H. Heather Macre Term ending 2018
- I. Cynthia Moulton Term ending 2016
- J. Pam Pickard Term ending 2018

## Pima County

- K. Karen Cesare Term ending 2020
- L. L.M. "Pat" Jacobs, IV Term ending 2020
- M. Sharon Megdal, Ph.D. Term ending 2020
- N. Warren Tenney Term ending 2020

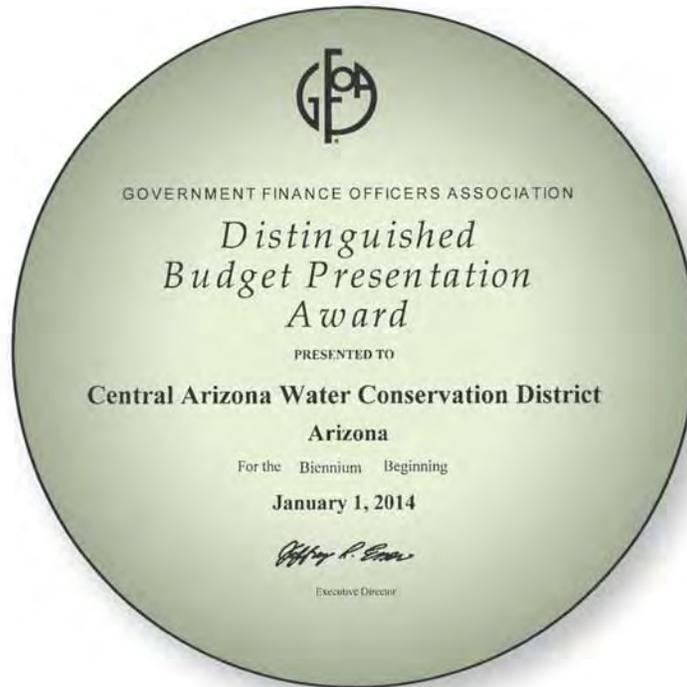
## Pinal County

- O. Jim Hartdegen Term ending 2020



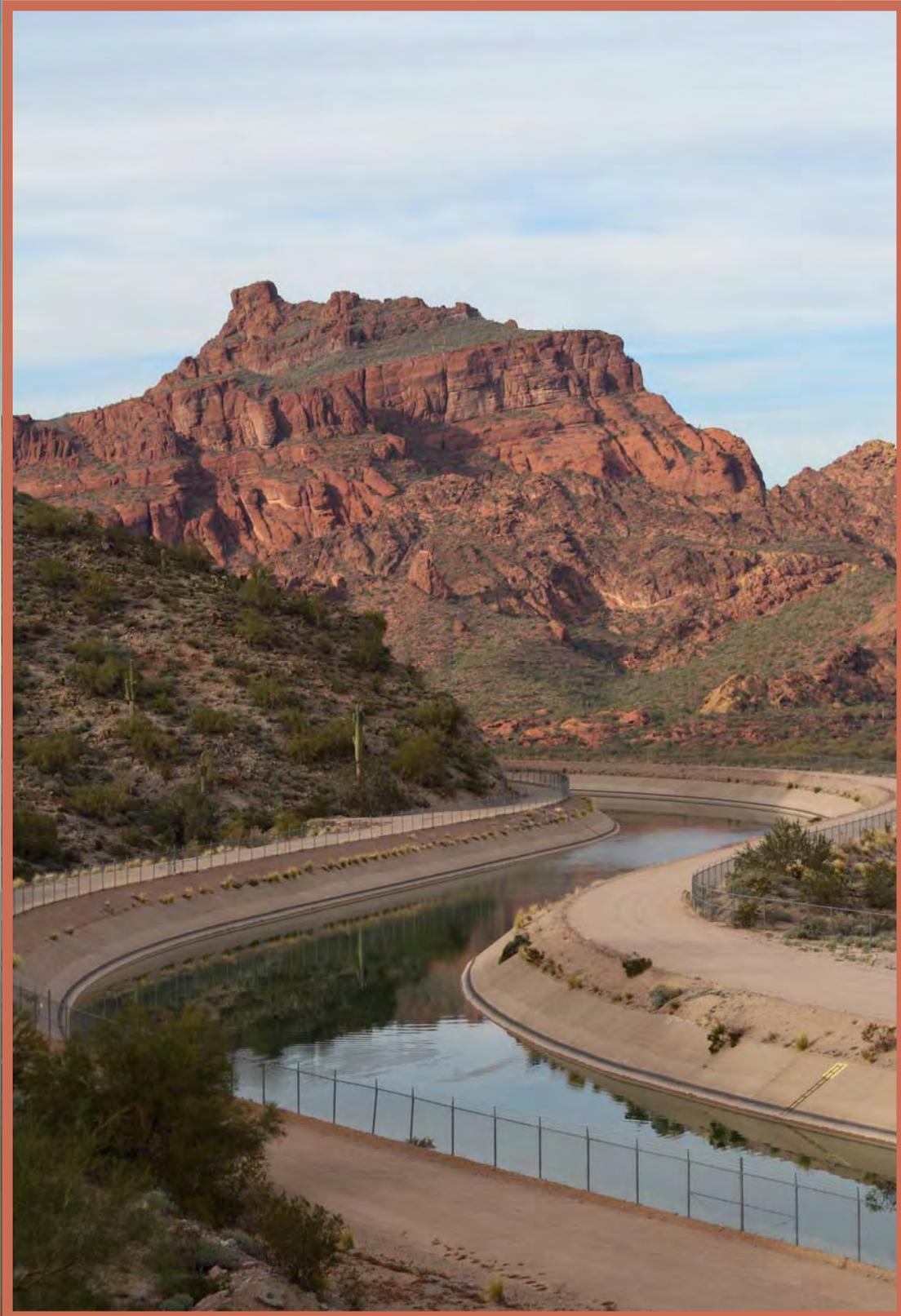
Canal at AZ Route 87

# GFOA AWARD



The Government Finance Officers Association (GFOA) of the United States and Canada presented a Distinguished Budget Presentation Award to Central Arizona Water Conservation District (CAWCD), Arizona for its Biennial Budget for the Biennium beginning January 1, 2014. In order to receive this award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan and as a communication device.

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



SRP Turnout near Salt Gila Pumping Plant

# WHO WE ARE

## Our Mission

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

## Our Vision

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

## Our Values

**Reliability:** We will use every drop of Colorado River water available to us

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

**Our Employees:** Our employees are our most important resource

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

**The Environment:** We will operate in an environmentally responsible manner

## Our Beliefs

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

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

# THE CAP SYSTEM



Aqueduct	Length (Miles)	Pumping Plants	Lift (Feet)	Tunnels & Siphons	Turnouts
Hayden-Rhodes	190	5	1,251	10	18
Fannin-McFarland	63	1	86	1	16
Tucson	83	9	1,569	1	12
<b>Totals</b>	<b>336</b>	<b>15</b>	<b>2,906</b>	<b>12</b>	<b>46</b>

## CAP PROFILE

Central Arizona Project was created in 1971 as the Central Arizona Water Conservation District, pursuant to state law. CAWCD is a three-county water conservation district. While generally having the same powers 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. CAP typically delivers its full allocation each year.



Aerial View of CAP Headquarters

## PURPOSES OF CAWCD

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

Secondly, CAWCD delivers Arizona's share of Colorado River water through a conveyance system that it also operates and maintains. The CAP aqueduct begins at the Arizona-California border near the confluence of the Bill Williams and Colorado Rivers at Lake Havasu and extends east and then south past Tucson to the Tohono O'odham Nation. The CAP system includes approximately 336 miles of aqueduct, 15 pumping plants, 12 tunnels and siphons and 46 turnouts. Using its pumps, CAP lifts water nearly 3,000 feet from the Colorado River to the CAP terminus just south of Tucson.

Finally, CAWCD is responsible for repaying the federal government the reimbursable costs associated with the construction of CAP. Over time, CAWCD's statutory responsibilities have expanded to include authorization to provide groundwater replenishment services through the CAGR and to build, operate and maintain underground storage projects.

# CAP HISTORY

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

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

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

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

## 30-YEAR ANNIVERSARY

2015 marked the 30-year anniversary of Central Arizona Project's first water delivery. Today, CAP is the state's single largest source of renewable water - delivering more than one and a half million acre-feet of water (500 billion gallons) to central and southern Arizona each year. CAP is a critical partner and collaborator with local and regional water resources' managers, customers and stakeholders in managing water supplies for Arizonans.



## GOVERNANCE AND CAWCD

CAWCD is a municipal corporation and is governed by a 15 member popularly-elected Board. Board members are elected from Maricopa (10), Pima (4) and Pinal (1) counties and meet monthly. Members serve staggered six-year terms and are not compensated for their time. CAP’s daily operations are managed by more than 470 people who are responsible for system maintenance and operations, repayment obligations, public education and policy, and creating water resource management programs for Arizona. Approximately two-thirds of the employees work at CAP Headquarters located in north Phoenix, while the others work on the system and at the facilities located throughout the system.

## CAWCD WATER USERS

CAWCD manages and operates the 336-mile Central Arizona Project. Through the CAWCD, CAP delivers Colorado River water to many different types of customers throughout its three-county service area, which is located in central and southern Arizona, encompassing Maricopa, Pima and Pinal counties. CAWCD’s expansive service area includes approximately 5.2 million people, roughly 80% of the state’s population and spans across 24,000 square miles of land, which is 20% of the state. CAP’s Headquarters are located along the aqueduct in north central Phoenix, the capital of Arizona.

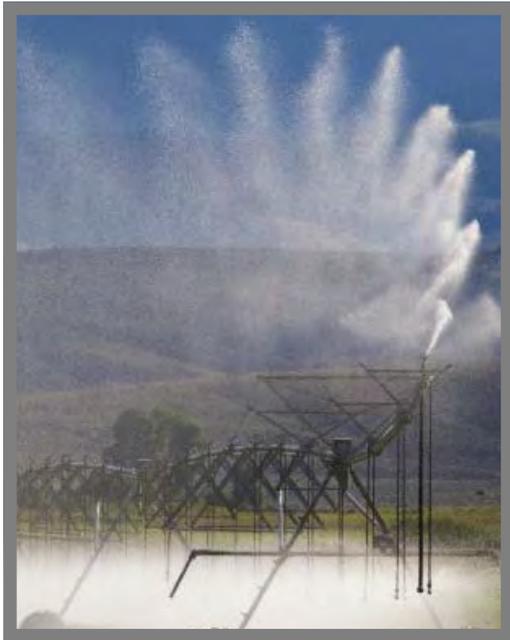


Check Structure 23 in Scottsdale

CAP delivers water pursuant to delivery agreements between the federal government and Municipal and Industrial and tribal stakeholders. Long-term contracts total 1.415 million acre-feet of water. Short-term excess CAP water is also delivered to several users via year-to-year contracts. Excess customers include several businesses, agricultural irrigation districts, AWBA, CAGR, as well as state and federal government. Thus, on average, CAP delivers about 1.6 million acre-feet of water annually.

	Maricopa	Pima	Pinal	Arizona
1990 Population	2,122,101	666,880	116,800	3,665,228
2000 Population	3,072,149	843,746	179,727	5,130,632
2012 Population	3,884,705	990,380	389,192	6,498,569
2045 Projected Population	6,554,000	1,447,400	1,081,000	10,886,000
Percent change projected between 2012 and 2045	68.7%	46.1%	177.8%	67.5%
2012 Labor Force ( <i>non-farm</i> )	1,896,987	462,748	140,041	3,030,238
2012 Land Area ( <i>square miles</i> )	9,222	9,184	5,374	113,635
2012 Unemployment Rate	7.1%	7.3%	8.9%	7.9%

Based on latest information available from the Arizona Commerce Authority and 2045 data based on information from Arizona Department of Statistics, 12/7/2012



Agriculture near Tucson

## AGRICULTURAL (AG) CUSTOMERS

Representing three of Arizona's five "Cs"— Cattle, Citrus and Cotton — agriculture in Arizona is a multi-billion dollar industry. According to a 2014 study by the University of Arizona's College of Agriculture & Life Sciences, agriculture contributes more than \$17 billion to state output. CAP's agricultural customers are primarily large irrigation districts that deliver water to farmers. CAP reserves and makes available a volume of excess water (currently 400,000 acre-feet) for specific agricultural customers. As part of an overall agreement, agricultural users of CAP water relinquished their long-term non-Indian Agriculture (NIA) allocations in exchange for a limited volume of water reserved for their exclusive use. Commonly referred to as the Ag Pool, this volume of water will decline over time, and

is available to CAP's agricultural customers through 2030. Ag Pool use currently represents about 25% of CAP deliveries.

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

More information:

[CAP-AZ.com](http://CAP-AZ.com) > Departments > Water Operations > Allocations

## MUNICIPAL & INDUSTRIAL (M&I) SUBCONTRACTORS

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

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



Downtown Phoenix

More information:

[CAP-AZ.com](http://CAP-AZ.com) > Departments > Water Operations > Allocations

## TRIBAL STAKEHOLDERS

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

Although there are 22 tribes in Arizona, only ten currently have partially or fully resolved claims to CAP water. CAP, along with other stakeholders, continues to engage in settlement discussions with tribes, 11 of which still have unresolved or outstanding claims. Four other tribes hold senior Colorado River rights adjudicated in *Arizona v. California*.

CAP is working to develop long-term relationships with tribal communities through outreach efforts that include invitations to tours, informational meetings and other public events. CAP also sponsors a tribal internship program, maintains a tribal web page and publishes a newsletter that features articles of interest to tribes. As relationships with tribes have grown and continue to develop, CAP has organized and participated with several organizations in events with a tribal emphasis.

More information:  
[CAP-AZ.com](http://CAP-AZ.com) > Tribal Water



## CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT



Superstition Mountains Recharge Site

Each year, CAP dedicates a volume of excess water to CAGRDR to enable them to fulfill its 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 excess groundwater on behalf of 22 member service areas (MSA) and 1,120 member land (ML) subdivisions representing approximately 270,000 homes.

More information:  
[CAGRDR.com](http://CAGRDR.com)

# ECONOMIC IMPACT OF CAP TO ARIZONA

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



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

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

## Key Findings:

- CAP water deliveries (1986-2010) have accounted for over \$1 trillion of Arizona’s GSP, approximately 23% of the GSP during this 25-year period.
- In the most recent five years of the study, CAP generated an economic benefit averaging over \$90 billion per year, an average of 35% of Arizona’s GSP each year.
- In the latest year of the study (2010), CAP generated \$128 billion of the GSP, 49.5% of the total for the state of Arizona and more than 1.6 million job-years of employment.
- In 2010 alone, total GSP across all 22 sectors would have been lower by almost \$128.6 billion if it weren’t for the delivery of CAP water. The top five sectors estimated to have declined the most in terms of contribution to the GSP in 2010 are: Government (\$26.4 billion), Healthcare (\$22.6 billion), Real Estate & Travel (\$19.5 billion), Retail (\$13.5 billion), and Finance & Insurance (\$8.4 billion).
- During the construction period (1973-1993), CAP generated approximately \$2.4 billion of the GSP and annual employment of up to 9,400 job years. This dollar value is approximately equivalent to the cost of the reimbursable portion of the CAP construction cost, including interest.



## COLORADO RIVER SHORTAGE

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

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

### Frequently Asked Questions:

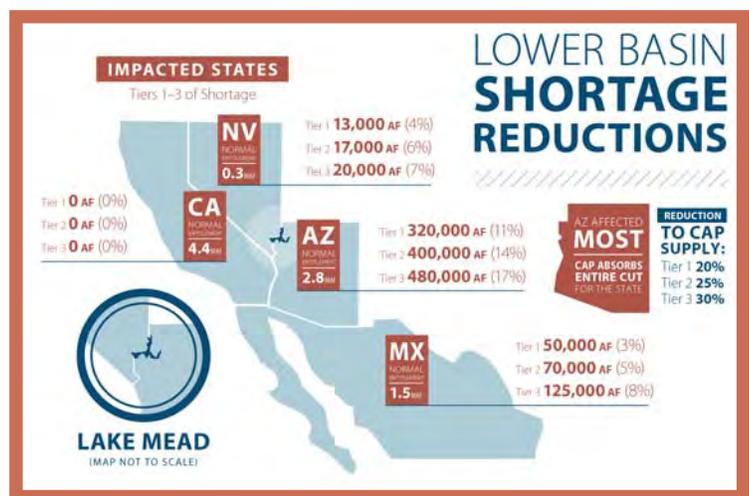
*What is a Colorado River Shortage?*

A shortage is an annual reduction in the amount of Colorado River water available to Arizona, Nevada and Mexico and is determined primarily by the volume of water in Lake Mead. Each month, the U.S. Bureau of Reclamation, which manages the Colorado River system, forecasts the elevation of the surface of Lake Mead for the following two years in a document called the 24-month study. If the elevation predicted by the August 24-month study for January 1<sup>st</sup> of the following year falls below an elevation of 1075', a shortage would be declared for the following year (e.g., a shortage would be declared for 2017 if the August 2016 prediction of January 2017 is below 1075'). A shortage has never been declared on the Colorado River since 1964.

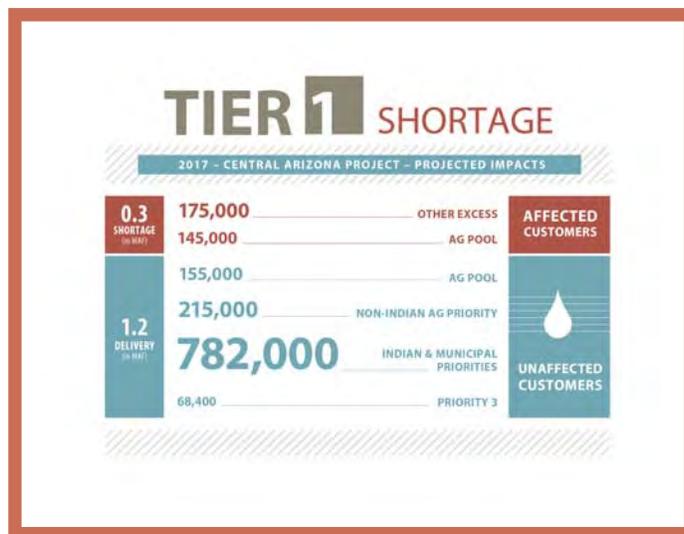
Based on current hydrologic conditions, the Lower Colorado River Basin could see an official declaration of shortage as early as 2017 with an increasing probability of shortage in 2018 (greater than 50% chance). CAP would be subject to reductions in Colorado River water because CAP holds a "junior" priority water entitlement among the Lower Basin states.

*Who will be impacted by the Colorado River Shortage?*

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



A Colorado River shortage would reduce CAP supplies by up to 320,000 acre-feet. CAP is currently taking approximately 1.6 million acre-feet off the river. Should levels in Lake Mead continue to fall even after a shortage has been declared, additional cutbacks to CAP, Nevada and Mexico will occur at elevations 1050' and 1025'. The ADWR and CAP are working cooperatively with many other Colorado River users to stop or delay these additional cutbacks by protecting levels in Lake Mead.



*Is Arizona prepared for a Colorado River Shortage?*

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



View from Hoover Dam

## REVENUE COLLECTION

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

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.

As Proposition 117 takes effect in tax year 2015, all property will be taxed based on the Limited Property Value (LPV). This proposition limits the annual growth in the LPV of all locally assessed property to 5%.

Tax Year July-June	Maricopa County NAV/LPV (\$M)	% Growth	Pinal County NAV/LPV (\$M)	% Growth	Pima County NAV/LPV (\$M)	% Growth	Total NAV/LPV (\$M)	% Growth
2011	\$38,760	-22.0%	\$2,219	-17.0%	\$8,482	-9.2%	\$49,461	-19.8%
2012	\$34,400	-11.2%	\$2,177	-1.9%	\$8,171	-3.7%	\$44,749	-9.5%
2013	\$32,229	-6.3%	\$2,005	-7.9%	\$7,624	-5.7%	\$41,858	-6.5%
2014	\$35,080	8.8%	\$2,041	1.8%	\$7,580	-0.6%	\$44,700	6.8%
<b>Prop 117 Limitation Begins</b>								
2015	\$34,624	3.3%	\$2,058	2.6%	\$7,620	1.4%	\$44,302	2.9%
2016	\$36,484	5.4%	\$2,156	4.8%	\$7,890	3.5%	\$46,530	5.0%
2017	\$38,920	6.7%	\$2,285	6.0%	\$8,322	5.5%	\$49,527	6.4%
2018	\$41,056	5.5%	\$2,438	6.7%	\$8,801	5.8%	\$52,295	5.6%
2019	\$43,286	5.4%	\$2,594	6.4%	\$9,277	5.4%	\$55,157	5.5%

Sources: CAP; Maricopa County; Pinal County; Pima County; Elliott D. Pollack & Company April 2015

Footnote: Tax years 2011-2014 display Net Assessed Value (NAV), Tax years 2015-2019 show Primary Limited Property Value (LPV)

## PUMPING POWER

CAP requires more than 2.9 million megawatt hours (MWh) of electricity per year to move water 336 miles across the Arizona desert. Power is used at the pumping plants to lift water where it then can continue to flow through the system by gravity to the next pumping plant. In an average year CAP uses more electricity than over 195,000 average Arizona residential homes. Besides the energy obtained from the NGS and Hoover Dam, CAP generates hydroelectricity when releasing water from Lake Pleasant.

CAP schedules power use and develops pumping strategies that most efficiently fulfill customers' requests by using the system's 109 pumps. Although CAP runs 24 hours a day, schedulers utilize an on-peak/off-peak power schedule to maximize pumping during off-peak times when power is less in demand and less expensive. By using more off-peak energy for pumping this provides more on-peak energy to WAPA, in the form of Navajo Surplus Power, which is sold into the market at a more lucrative price. Any surplus power profits are used to assist CAWCD with the annual CAP repayment.

## FINAL RULE FOR NAVAJO GENERATING STATION

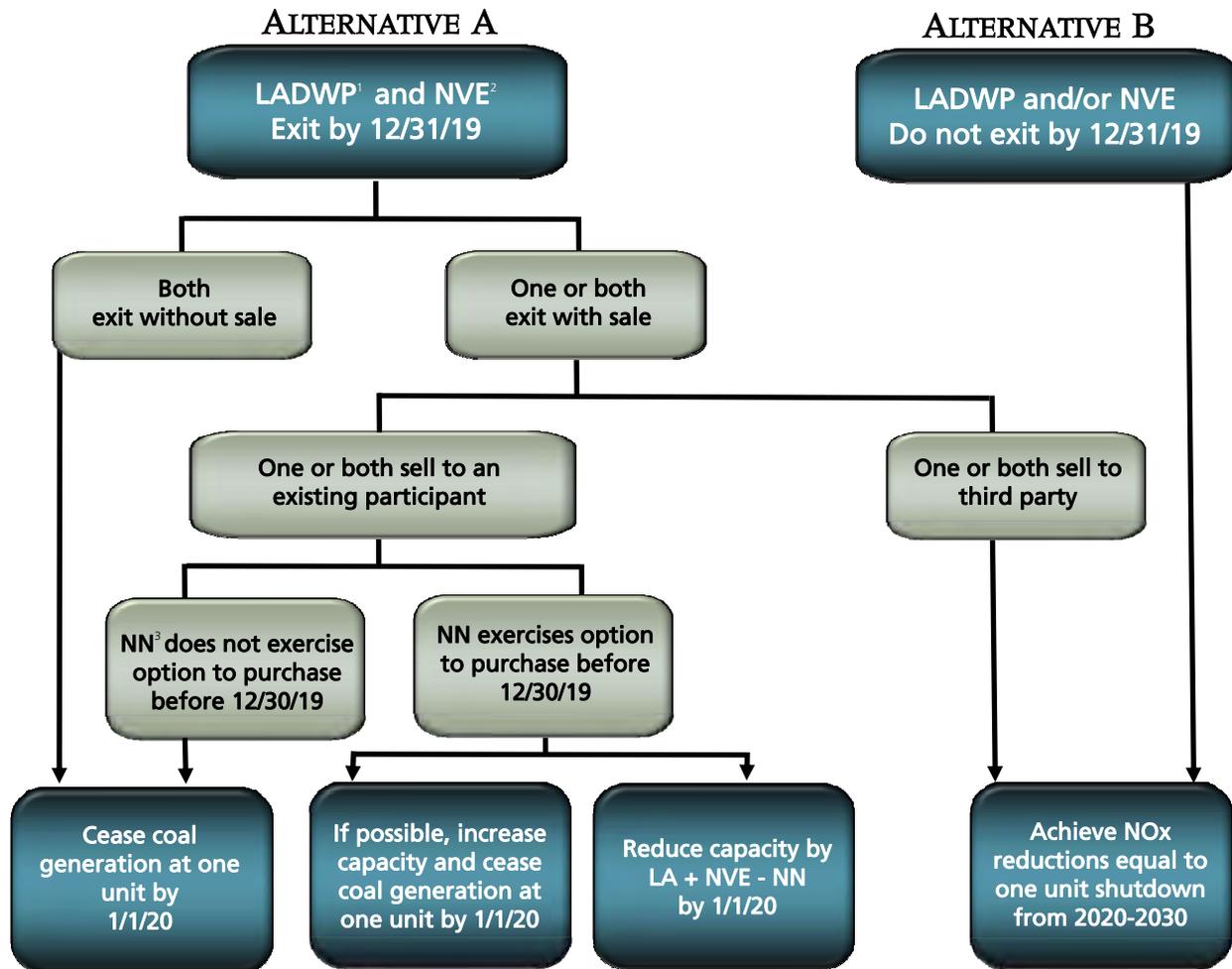
On July 28, 2014, the Environmental Protection Agency published an internet version of the final regional haze rule for the Navajo Generating Station that incorporates the major elements of the Technical Work Group BART Proposal submitted previously. The TWG is a broad-based coalition of affected stakeholders comprised of CAP, the Gila River Indian Community, the Navajo Nation, Salt River Project, the Environmental Defense Fund, the U.S. Department of the Interior and Western Resource Advocates. The TWG was formed in response to the EPA's invitation to develop an alternative to its February 2013 proposal aimed at reducing nitrous oxide (NOx) emissions at the power plant.



Navajo Generating Station

Acceptance of the TWG proposal and publication of the final rule means that, depending on future ownership decisions, one generating unit at NGS will likely be shut down and installation of Selective Catalytic Reduction technology (emissions control) on the remaining two units delayed until the 2028-2030 time frame. The EPA's decision is generally good news for NGS, as it provides a path forward to continued operation through 2044.

Under the final rule approved by the EPA, there are two alternatives that can be chosen to reduce NOx emissions at the plant. The following chart illustrates the courses of those two alternatives. It is important to note that, regardless of which alternative takes place, cumulative NOx emissions will be lower than what the EPA had originally proposed.



<sup>1</sup> Los Angeles Department of Water and Power; <sup>2</sup> Nevada Energy; <sup>3</sup> Navajo Nation

The TWG agreement includes a number of commitments from the Interior Department that are critical to the issue of carbon management, including, but not limited to:

- ◆ promoting development of clean energy, with an emphasis on Indian Tribes affected by NGS;
- ◆ conducting studies to identify options for replacing the federal share of energy from NGS with low-carbon dioxide emitting energy; and
- ◆ a commitment to reduce the CO<sub>2</sub> associated with the energy used to pump CAP water by 3% annually for a total of 11.3 million metric tons (approximately 12.5 million U.S. tons) to be achieved no later than December 31, 2035 through measures taken at NGS or through qualifying low-emitting clean energy projects.

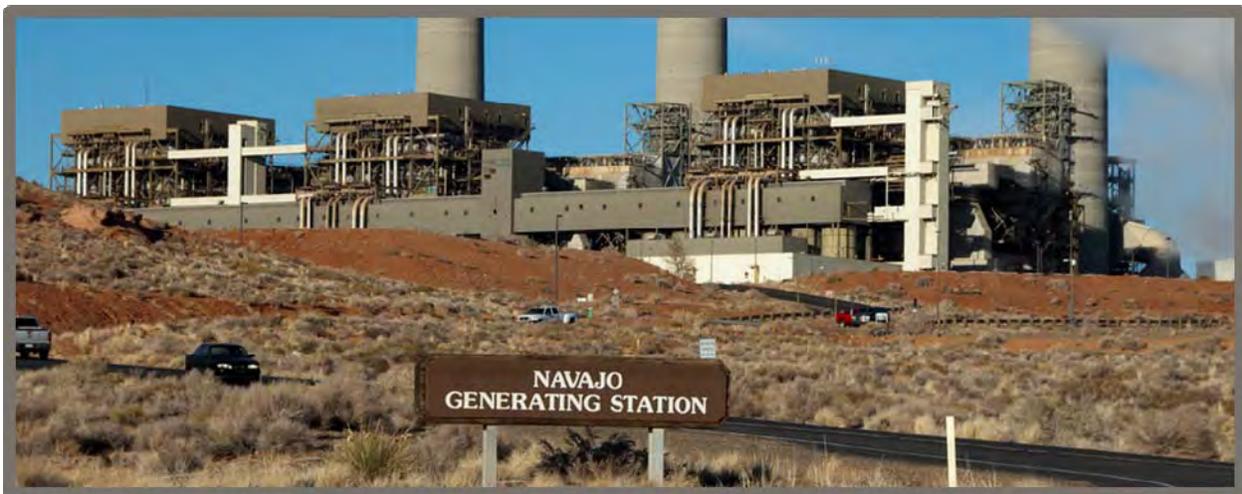
The NGS final rule was published in the Federal Register on August 8, and became effective on October 7, 2014.

*Why this is important:*

Navajo Generating Station supplies more than 90 percent of the energy CAP needs to deliver Colorado River water to central and southern Arizona. NGS remains the most cost-efficient and reliable source of energy for CAP and, therefore, the 228-page rule is good news for CAP's municipal, tribal and agricultural customers, the Navajo Nation, Hopi Tribe and the State of Arizona.

Some of the benefits of the NGS Final Rule to CAP and its customers/stakeholders include:

- ◆ The long-term viability of NGS provides certainty that stable and reliable power supplies are available to CAP for decades.
- ◆ The costs associated with the original EPA rule are significantly delayed, potentially until 2030, ensuring CAP can continue to deliver affordable, renewable supplies while preparing for future cost increases in a deliberate fashion.
- ◆ It preserves CAP's ability to fund Arizona's repayment obligation to the federal government for construction of the CAP system through the sale of surplus NGS power.
- ◆ Power cost increases that threatened to disrupt the tribal water rights settlements are mitigated.



Navajo Generating Station

# 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 fund and account, revenues and expenses are further divided between operating and non-operating categories. Each of the funds and accounts is further explained in the Operating Budget, Section 5. The following key assumptions provide the framework and guidance for development of the 2016 / 2017 Biennial Budget. The assumptions and trends are discussed in the sections that follow:

## General Fund

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

### Assumptions

- Water rates are established prior to the beginning of the year based on estimated costs and water deliveries.
- 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 and infrastructure and administration.
- Membership dues will be collected each year.

## Supplemental Water Account

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

### Assumption

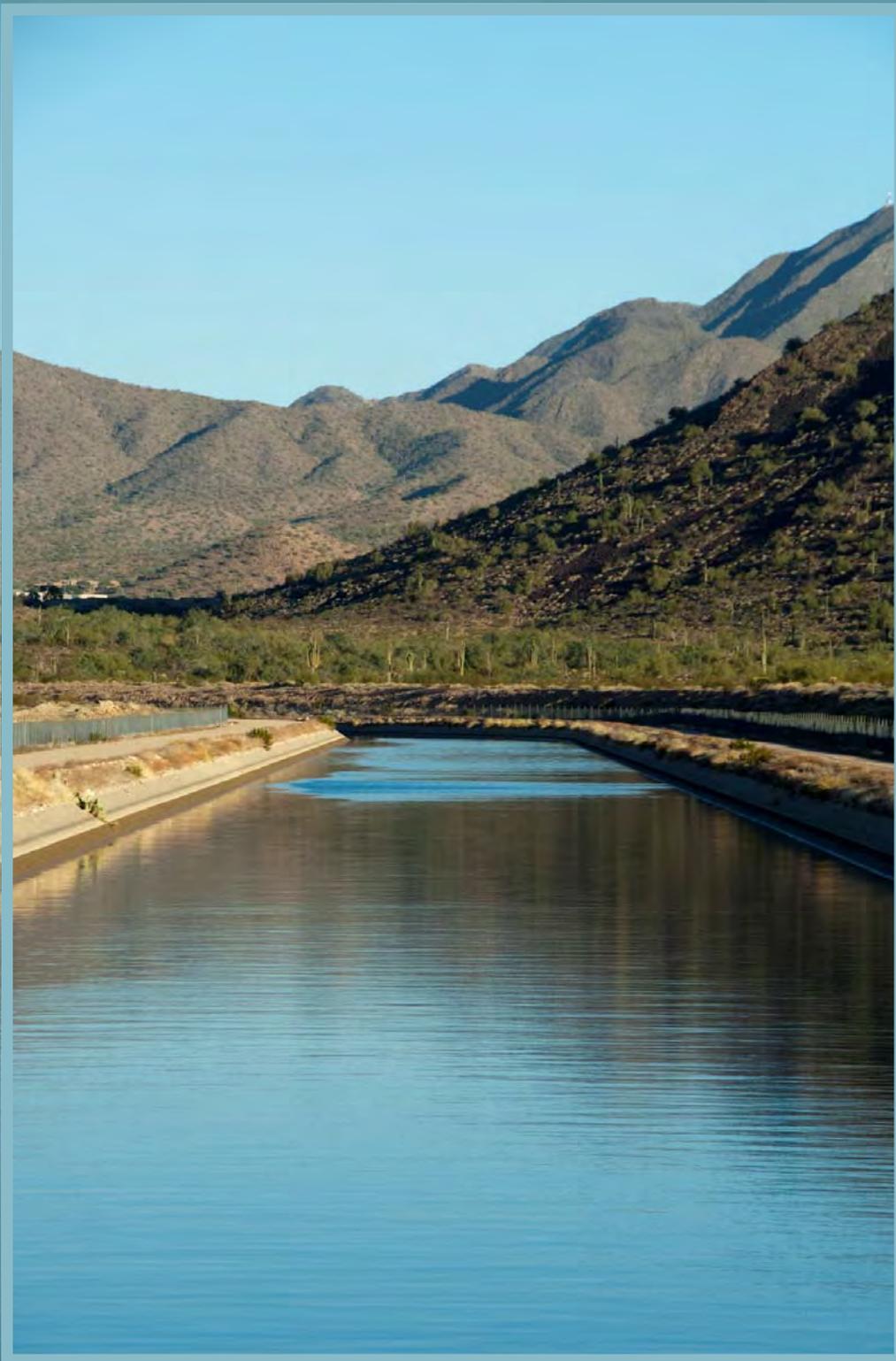
- Interest accrues on balance and there are no anticipated expenses for the account during the budget period.

## Captive Insurance Fund

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

### Assumptions

- Premiums will be established actuarially.
- Reserves will be funded in accordance with legal requirements.



CAP Canal near check structure 24

# DISTRICT REVENUES

CAWCD has four major sources of funding:

Water delivery charges, which include Water Operations and Maintenance (O&M) charges, capital charges and pumping power charges

Power and Basin Development Fund (BDF) revenues

Property taxes

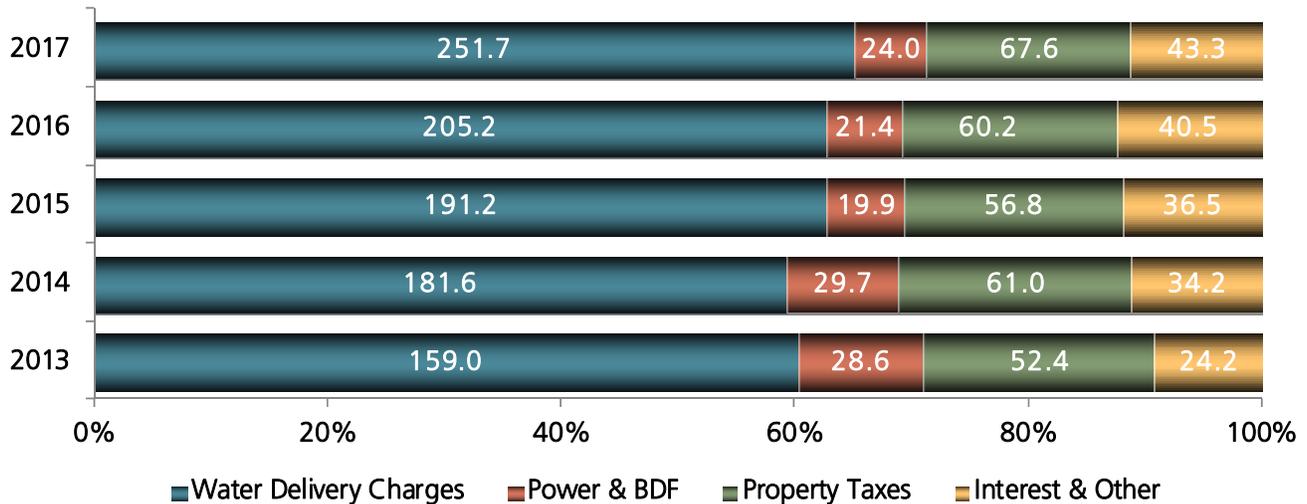
Interest income, reimbursement and other revenues

Water delivery charges are the District’s most significant revenue source, accounting for over 60% of the 2016 / 2017 Budget. Property taxes comprise approximately 18% of revenues, Power and Basin Development Fund (BDF) revenues represent over 6%, with the balance comprised of CAGR charges, interest income, reimbursements and other revenues.

Each fund and account is accounted for individually to determine the performance of the specific activities within that fund. At the consolidated level, inter-fund activities are eliminated. For instance, 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 2016 budget is \$22.9 million higher than 2015 projected revenues and 2017 is \$59.3 million higher than 2016. The major changes are discussed in the relevant revenue sections that follow.

<i>(Millions)</i>	2015 Projection	2016 Budget	2017 Budget	16 vs 15 Incr/(Decr)	17 vs 16 Incr/(Decr)
Water O&M Charges	\$ 176.0	\$ 188.9	\$ 202.7	\$ 12.9	\$ 13.8
Capital Charges	15.2	16.3	49.0	1.1	32.7
Power & Other BDF	19.9	21.4	24.0	1.5	2.6
Property Taxes	56.8	60.2	67.6	3.4	7.4
Interest Income	5.9	6.7	6.5	0.8	(0.2)
Other Revenues	30.6	33.8	36.8	3.2	3.0
Total Revenues	\$ 304.4	\$ 327.3	\$ 386.6	\$ 22.9	\$ 59.3

## WATER DELIVERY VOLUMES AND WATER DELIVERY CHARGES

### *Water Delivery Volumes*

The delivery of wholesale, untreated surface water represents CAWCD's core business with deliveries to customers grouped into four major classes: Municipal and Industrial (M&I), agriculture, federal (Indian) and underground storage. Within these categories are deliveries under long-term federal contracts and long-term M&I subcontracts. Any amounts not delivered under these agreements are available as excess water under annual short-term agreements. Previously, excess water was available for interstate banking, though no water is anticipated in the near future.

CAWCD has an "Access to Excess" policy for the allocation of excess water. Available excess water is allocated to four pools, one for CAGR annual replenishment, one for Arizona Water Banking Authority (AWBA) and CAGR replenishment reserve, one for municipal customers, and one for industrial and other customers.

The Arizona Water Settlement Act established a pool for agricultural customers as a settlement for relinquishing their long-term CAP subcontract allocations so that water supply could be used for Indian water settlement. The Ag Settlement pool is 400,000 acre-foot through 2016; declines to 300,000 acre-feet from 2017 to 2023; and ends with 225,000 acre-feet through 2030. CAWCD has various rate schedules for these customer classes (see page 8-3). Ag subcontractors were relieved of certain indebtedness to the United States. Part of this relief was in the form of debt forgiveness by the United States, and part of the relief was the assumption of a portion of the debt (known as 9(d) debt) by CAP. In addition, agricultural customers do not pay Fixed Operations, Maintenance and Replacement (OM&R) as part of the agreement, referred to as the Ag Consideration.

Historically, the volatility of water delivery volumes has been influenced primarily by weather conditions, underground water storage capacity and the availability of surplus water on the Colorado River in any given year. M&I and federal water usage has been growing steadily. Consequently, while the availability of excess water (water that has not been ordered by long-term customers) is shrinking, underground water storage is an important component of CAWCD's ability to use its full entitlement of any available water on the Colorado River.

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

Due to concerns about shortage and to improve the elevations of Lake Mead, CAWCD has entered into a Memorandum of Understanding (MOU) with the Bureau of Reclamation (BOR or Bureau) and other parties to leave a quantity of 345 thousand acre-feet in Lake Mead by the end of 2017. This target will be achieved through agreements with some CAP customers not to take their full entitlements. These turn-backs of water will assist in increasing the lake level (or slowing its decline). To help achieve this target, a 2-year forbearance program was offered to agricultural customers that met certain criteria to turn-back approximately 80 thousand acre-feet per year in 2015 and 2016. The remainder will be accomplished through agreements with other customers and not remarketing some water that may become available.

### Water Deliveries 2008 to 2017

*Acre-Feet (000)*  
*Excludes credits*



A shortage has not been declared for 2016 and the water volumes indicate normal deliveries less the amounts reduced for the above mentioned agreements. Turn-back water is about 146 thousand acre-feet in 2016. There is not currently any turn-back water from agreements for 2017. Although there is a potential for a shortage in 2017, one would not be declared until August 2016 when the Bureau releases it's 24-month study. In the event one is declared, staff will review the impacts on the budget. From a revenue impact, water delivery revenue would increase as the initial decreases would be to the agricultural districts, who do not pay Fixed OM&R as stated above, and the Fixed OM&R rate would increase approximately 25% to the remaining customers.



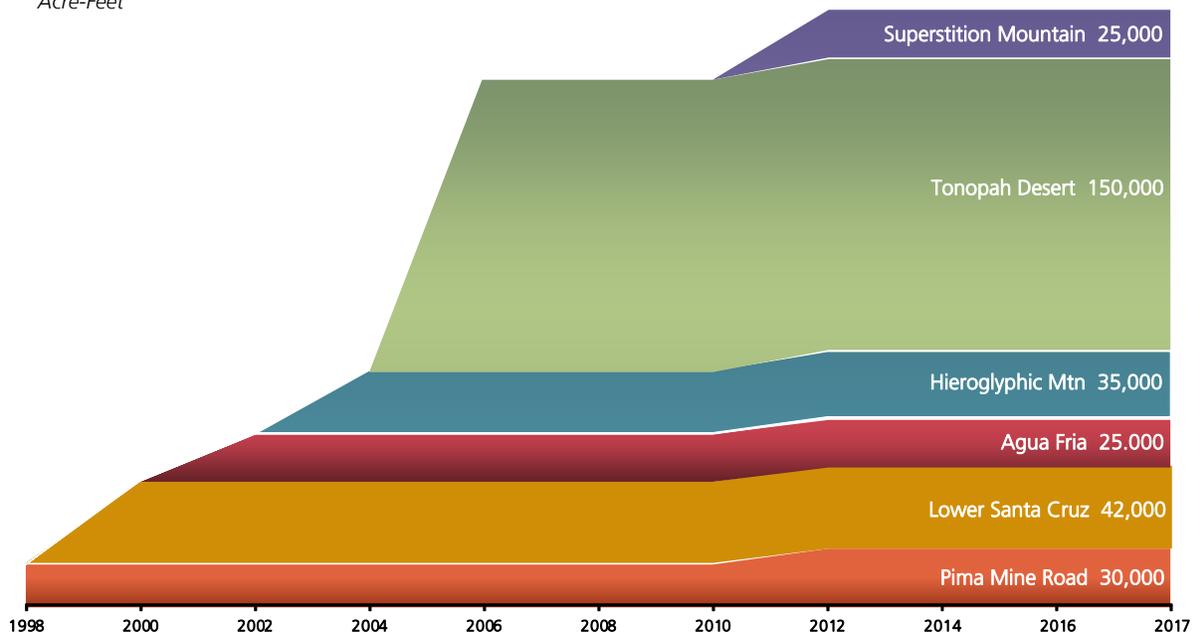
CAP Underground Storage Facilities

- The 2016 / 2017 budget assumes the continuation of normal deliveries. During shortage years, water delivery priority from high to low is as follows: (1) Indian (federal water) and M&I; (2) agriculture; and (3) excess and other (includes underground storage).
- The Ag Pool decreases from 400,000 acre-feet to 300,000 acre-feet in 2017.

### Underground Storage Operational Capacity

307,000 Total

Acre-Feet



## *Water Delivery Charges*

As prescribed in CAP's rate-setting policy, water delivery charges are set biennially in June (even years) for the upcoming two calendar years with firm rates for first year, provisional rates for the second year and advisory rates for the following four years. Provisional rates automatically become firm, unless the Board takes additional action. In 2014, CAP set the provisional rates for 2016. In 2015, the Board made the 2016 rates firm without any changes. The 2016 firm rates and 2017 advisory rates were used to develop the water delivery budget.

Due to the correlation between water delivery volumes and water delivery charges, assumptions used to explain water delivery volumes are pertinent for understanding water delivery revenues. The following table reflects actual water deliveries and associated revenues for 2013 and 2014 and water delivery volume assumptions and related revenues for 2015 through 2017.

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

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Volume (Acre-feet / Thousands)</b>					
Municipal & Industrial	496.4	503.5	537.5	567.5	575.9
Agricultural	400.8	400.8	319.1	319.9	300.0
Federal	532.6	534.3	562.9	572.5	572.4
Underground Storage	90.2	87.4	58.7	46.4	74.1
<b>Total Water Deliveries</b>	<b>1,520.0</b>	<b>1,526.0</b>	<b>1,478.2</b>	<b>1,506.3</b>	<b>1,522.4</b>
CAGR Credit Transfer	13.3	9.7	10.1	12.7	12.6
	<b>1,533.3</b>	<b>1,535.7</b>	<b>1,488.3</b>	<b>1,519.0</b>	<b>1,535.0</b>
<b>Revenues-Net Elims (Millions)</b>					
Water O&M Charges	\$ 148.3	\$ 167.0	\$ 176.0	\$ 188.9	\$ 202.7
Capital Charges	10.7	14.6	15.2	16.3	49.0
<b>Total Water Delivery Revenues</b>	<b>\$ 159.0</b>	<b>\$ 181.6</b>	<b>\$ 191.2</b>	<b>\$ 205.2</b>	<b>\$ 251.7</b>

### *Fixed OM&R Rate Component*

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

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

A rate stabilization component was incorporated into the Fixed OM&R rate in 2012 and is deposited into a separate rate stabilization reserve. It has a target of \$30 million and is projected to be about \$26 million by the end of 2016.

The rate stabilization component is designated for two purposes. The first and most important is to create a reserve to smooth out a rate increase in the event of a shortage declared on the Colorado River. In the event of a shortage, water deliveries would be decreased which would cause the rate to increase for Fixed OM&R charges (a lower denominator). In this event, funds from the rate stabilization reserve would be used to decrease the impact of the shortage over a two- to three-year period. The second purpose of the rate stabilization component, if needed, is to provide a mechanism to stabilize rates from year-end reconciliation. Rates for M&I and federal customers are required to be reconciled each year and this fund can be used to “fine tune” the preset rate to the actual year-end rate and eliminate the need to bill additional charges to customers. This component allows customers to have predictability in their rates for budgetary planning. This rate component would be discontinued in a year for which a shortage is declared.

In 2015, customers that require annual rate reconciliation were due a significant refund from the 2014 reconciliation (mostly related to energy). A program was offered to these customers to deposit their refunds into a committed secondary rate stabilization fund. CAWCD agreed to match a portion of the amounts that were contributed to the fund. This fund will allow participating customers to further decrease the initial rate impacts resulting from a shortage. If a shortage does not occur, these funds will be refunded to the customers with the associated interest. CAWCD reserves would also be refunded the amount that was matched with interest. A significant number of customers opted to participate in the program.

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

### ***Pumping Power Rate Component***

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

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

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

There are no shaping and displacement savings planned during the budget period.

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

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

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

As mentioned above, Agricultural customers that had met some minimum requirements were offered a forbearance program that included an additional discount on their energy charge.

### ***Capital Charges***

Capital charges are used to pay the District's annual repayment obligation to the federal government. CAWCD assesses a capital charge to M&I customers. These charges are based on water service subcontract allocations for M&I subcontractors and are not impacted by changes in water deliveries. Customers using excess water pay capital charges in the form of a facility-use charge based on scheduled water deliveries; federal customers do not pay a capital charge. Any repayment obligation amount not covered by capital charges are made up from property taxes.

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

### ***Major Assumptions***

- Water O&M revenues are projected at the current firm, and advisory OM&R rates, net of the rate stabilization component.
- M&I capital charge and facility use rates will be \$23/acre-foot for 2016 and \$24/acre-foot for 2017.
- The Ag Incentives will be continued in 2016 and 2017, as indicated in the rate schedule on page 8-3.
- 46,629 acre-feet of non-Indian agriculture (NIA) water will be allocated by the end of 2017. This reallocation will include back capital charges due to CAP, in the amount of approximately \$31.1 million. This water will be available for delivery in 2018.
- Delivery levels will be at the levels indicated on page 8-1.

## POWER AND BASIN DEVELOPMENT FUND (BDF) REVENUES

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

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

### *Major Assumptions*

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

(Millions)	2015 Projection	2016 Budget	2017 Budget	16 vs 15 Incr/(Decr)	17 vs 16 Incr/(Decr)
SRP consideration fee	\$ 26.9	\$ 27.8	\$ 28.6	\$ 0.9	\$ 0.8
Net surplus power/ net NGS operations	(14.1)	(15.5)	(13.1)	(1.4)	2.4
Hoover 4.5 Mil Revenue	3.0	3.0	3.0	-	-
Parker-Davis 4.5 Mil Revenue	2.7	2.7	2.7	-	-
Net CAP Transmission Revenues	(1.1)	-	0.8	1.1	0.8
Land Related Revenue	1.0	1.9	0.4	0.9	(1.5)
Misc NGS Revenues	1.5	1.5	1.6	-	0.1
	<b>\$ 19.9</b>	<b>\$ 21.4</b>	<b>\$ 24.0</b>	<b>\$ 1.5</b>	<b>\$ 2.6</b>

## REIMBURSEMENT AND OTHER REVENUES

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

<i>(Thousands)</i>	2015 Projection	2016 Budget	2017 Budget
CAGR D Assessments	\$ 29,479	\$ 33,419	\$ 36,309
O&M of Underground Storage Facilities	1,406	1,120	1,300
Land Use Charges	70	70	73
Property Disposal (Non-Capital)	19	27	28
Captive Insurance Premiums	8,054	8,539	8,824
Other	334	200	38
Eliminations	(8,719)	(9,605)	(9,770)
<b>Total Reimbursements and Other Revenues</b>	<b>\$ 30,643</b>	<b>\$ 33,770</b>	<b>\$ 36,802</b>

## 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***

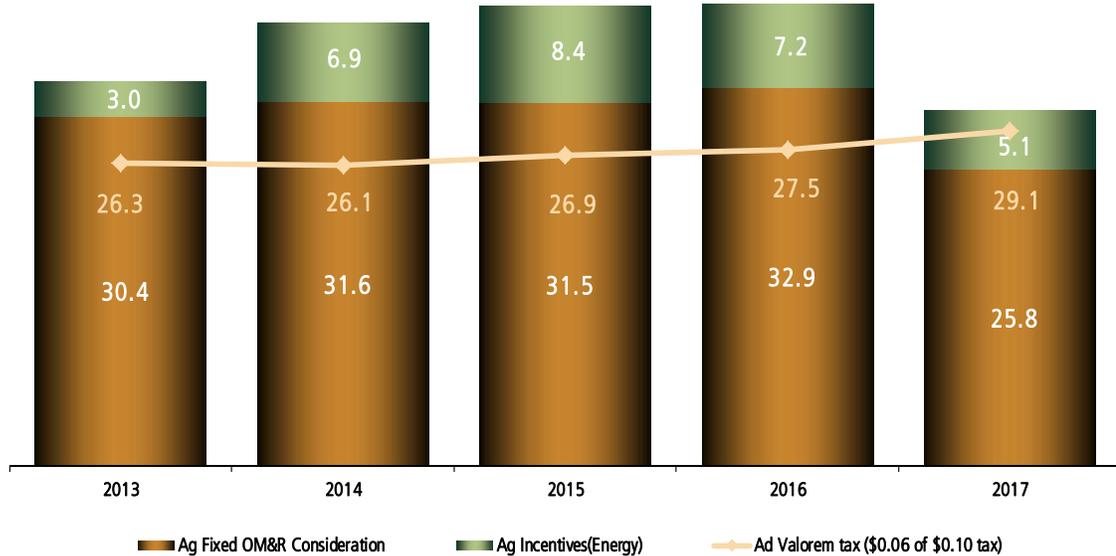
The District's enabling legislation authorizes the District to levy a general ad valorem tax throughout CAWCD's three-county service area (Maricopa, Pinal and Pima Counties) not to exceed \$0.10 per \$100 of Net Assessed Valuation (NAV). These taxes are used for CAP federal debt repayment, agricultural Fixed OM&R, Board-approved subsidies, recharge capital, smoothing project O&M expenditures and other purposes. This general ad valorem property tax was first levied beginning in the 1974 / 1975 tax year. Historical tax rates for each year are shown below on page 2-14.

Beginning in the 2013 / 2014 tax year, the Board increased the General Ad Valorem tax rate to \$0.10 and designated that \$0.04 of this tax be set aside in a separate committed Extraordinary Cost reserve until such time that the Board authorizes its use. This reserve will be utilized to help address the many significant cost expenditures looming, including NGS lease and coal extension costs, NGS environmental regulations impact costs, shortage mitigation costs, as well as a variety of other unknowns, especially related to the energy market. The Extraordinary cost reserve is not part of strategic reserves.

The General Ad Valorem tax, net of the amount designated for the Extraordinary Cost Reserve, is being completely consumed by the Ag Consideration and Ag Incentive programs. Amounts that aren't covered by the taxes are covered out of reserves. Following is the comparison of the property tax collections and the cost of the Ag programs.

### Agricultural Programs vs. Tax Collection

Millions



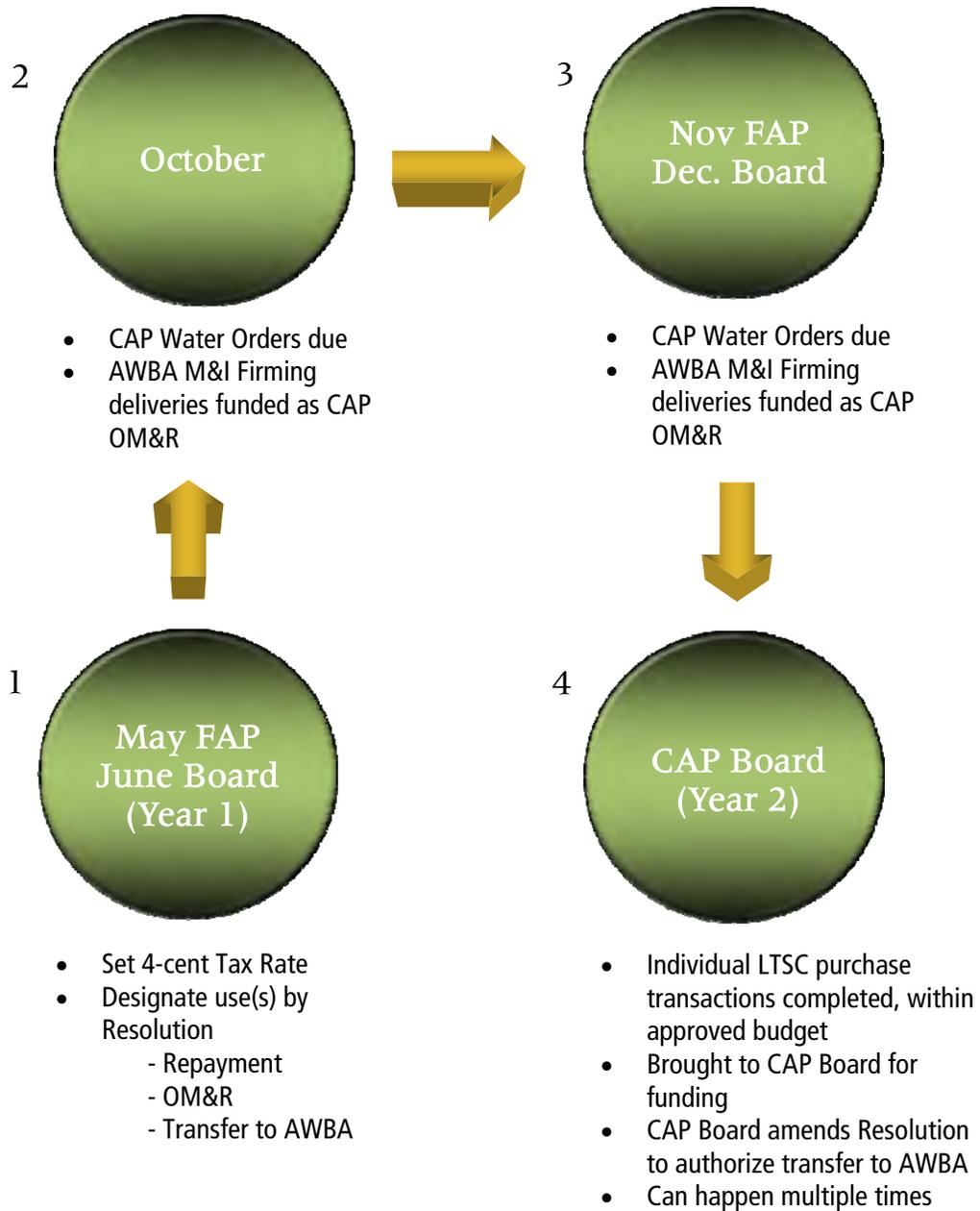
Excludes additional energy incentive from Ag forbearance program of \$2.1 million in 2015 and \$2.9 million in 2016

### Water Storage Tax

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

Arizona Revised Statutes (ARS) § 48-3715-03.A provides that the Board shall determine whether any or all portion of the water storage tax is to be applied to the payment or repayment of CAP construction or operating costs. If these monies are not needed by CAWCD for these purposes, they must be transferred to the AWBA. In 2014, ARS § 45-2423 was revised, allowing the AWBA to purchase Long Term Storage Credits (LTSC). The CAWCD Board subsequently approved an amendment to the Intergovernmental Agreement (IGA) among CAWCD, AWBA and Arizona Department of Water Resources (ADWR) that governs the way in which 4-cent taxes can be used to help pay for such purchases. Under this amendment, the CAWCD Board will continue to establish the Water Storage Tax rate and use each June under the existing statutes. Later in the year, as part of preparing its operating plan, AWBA may make a request for some amount of the Water Storage tax levied for the current tax year for the purpose of purchasing long-term storage credits. Once a purchase is finalized, the CAWCD Board will amend its resolution to transfer the funds to the AWBA to make payment on the LTSC purchase. See the process diagram on the following page.

## AWBA LONG-TERM STORAGE CREDIT (LTSC) PURCHASE PROCESS



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

## ***Property Tax Equivalency***

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

## ***Proposition 117***

CAWCD ad valorem taxes are secondary property taxes that historically have been assessed based on the Full Cash Value (FCV) of property. Proposition 117 took effect in 2015, and the lower Limited Property Value (LPV) replaced the FCV and is constrained to rise no more than 5% per year, although newly-built property will be recorded at its actual FCV for the initial year

## ***Major Assumptions***

- The general ad valorem tax rate will remain at \$0.10 per \$100 of NAV throughout the budget period. \$0.04 will be dedicated to the Extraordinary Cost reserve.
- The water storage tax rate will remain at \$0.04 per \$100 of NAV throughout the budget period.
- In 2016 and 2017, \$4.0 million and \$0.1 million is planned to be transferred to the AWBA for LTSC credit purchases, respectively. The remaining will be retained to defray CAP annual OM&R costs and repayment.

Tax Years (collected October- September)	General Ad Valorem Tax	Water Storage Ad Valorem Tax
1974-83	\$ 0.03	N/A
1983-84	0.05	N/A
1984-88	0.07	N/A
1988-95	0.10	N/A
1995-00	0.10	0.04
2000-03	0.09	0.04
2003-07	0.08	0.04
2007-13	0.06	0.04
2013-17	0.10	0.04

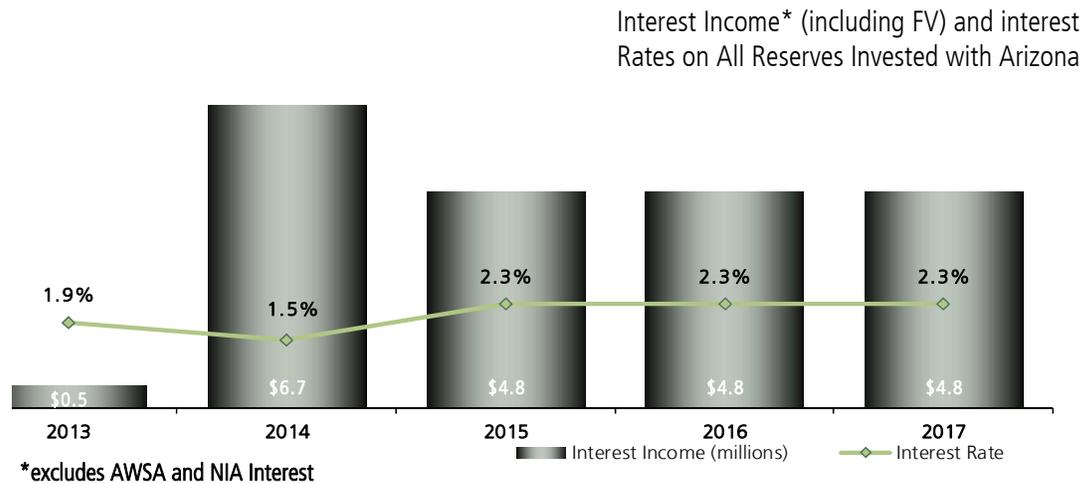
Calendar Year	General Ad Valorem Tax (Millions)	Water Storage Ad Valorem Tax (Millions)	Total (Millions)
2013	\$ 34.1	\$ 18.3	\$ 52.4
2014	41.8	19.2	61.0
2015	44.9	11.9	56.8
2016	45.8	14.4	60.2
2017	48.5	19.1	67.6

## INTEREST INCOME

CAWCD is required by its enabling legislation to invest funds not currently needed for operations or dedicated to the repayment of revenue bonds with the Arizona State Treasurer. Funds invested earn interest and this interest is recorded in the appropriate accounts. The Captive funds are held at the Bank of Hawaii. CAWCD also receives interest on funds that are held in the Basin fund, which varies between \$700,000-\$900,000 per year, depending on the timing of a variety of factors.

The District receives interest on any late or back capital charges such as the NIA reallocation that is projected to happen in 2017. It is expected that the District will have \$15.4 million in interest in 2017 related to the NIA reallocation. There will also be interest over the next few years as part of an optional 5-year payment plan.

The following graph shows the historical Interest and fair value (FV) adjustments as well as the average annual interest rate on investments at the State Treasurer. Negative FV adjustments in 2013 completely offset any interest income in 2013.

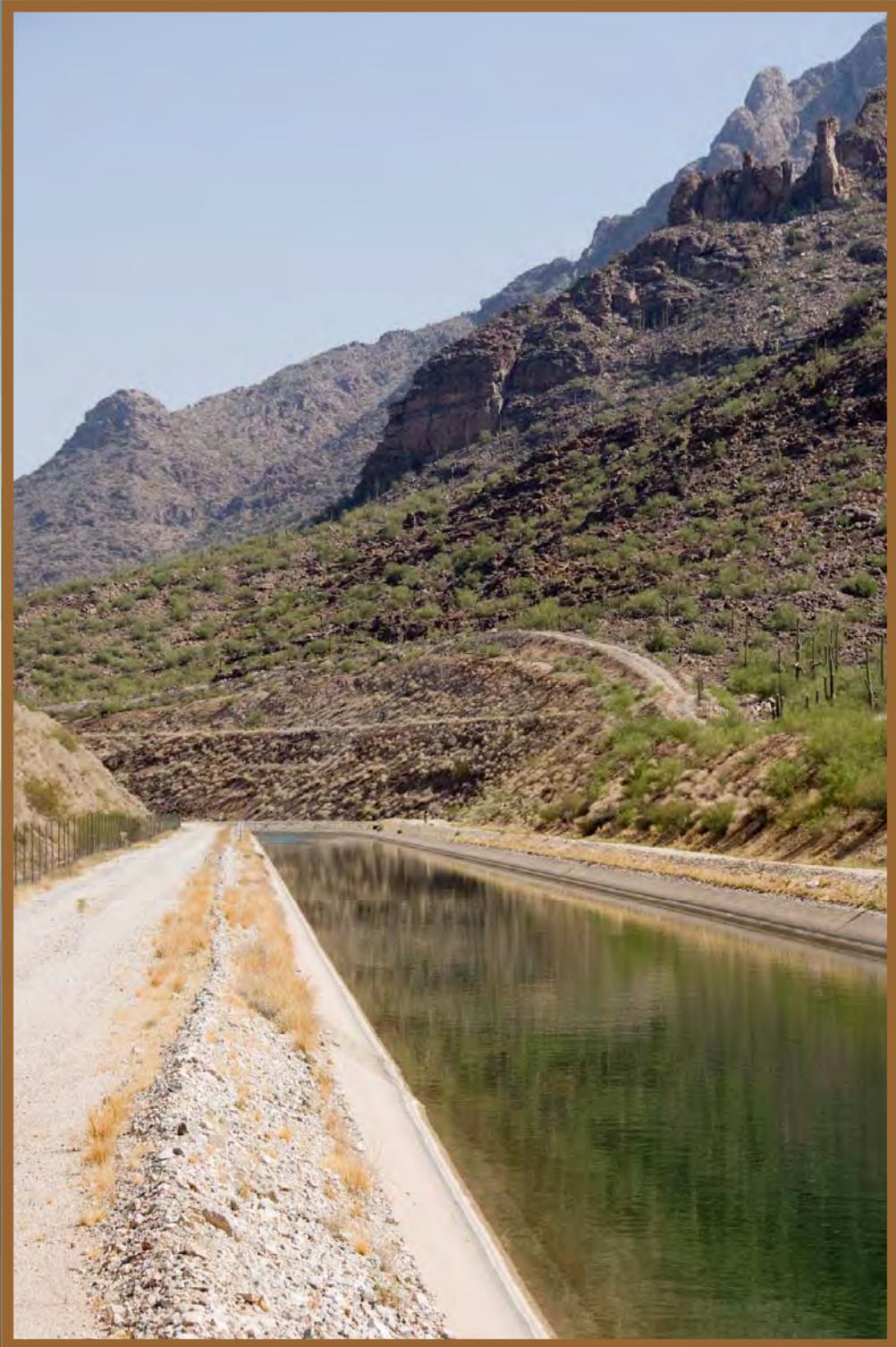


## OTHER INCOME/GAIN-LOSS ON SALE OF CAPITAL ASSETS

Part of the payment CAP will receive for the NIA reallocation, is related to 9(d) debt service for which the District has assumed a liability from the United States Government. The asset is the Agricultural Water Allocation on the Statement of Net Position and the liability is the NIA 9(d) Debt. As the allocations are made, part of the payment is for the 9(d) debt that will be deposited into a separate reserve account. The asset is discounted based on the current value as a result of the payment schedule of the 9(d) debt payments. A corresponding write-down of the asset will be made upon the allocation that amounts to \$17.4 million in 2017.

### *Major Assumptions*

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



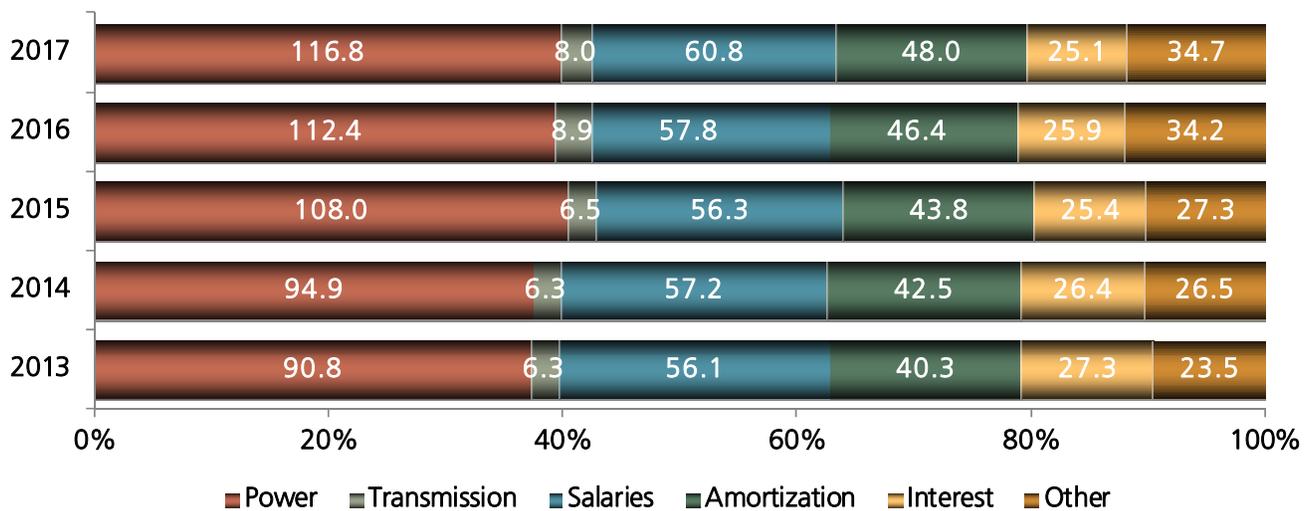
CAP Canal near check structure 34

# DISTRICT EXPENSES

District expenses are categorized as either operating or non-operating expenses. Operating expenses include pumping power, salaries and related costs, amortization and depreciation, and other operating costs. Non-operating expenses are associated with interest expense on the federal repayment obligation. Pumping power is the District's most significant expense, accounting for approximately 40% of the 2016 / 2017 budget. The second largest expense is salaries and related costs, followed by amortization and depreciation, other operating costs, interest expense and transmission expenses.

## Total Expenses

(Millions) - 100% scale



The 2016 expense budget is \$18.3 million higher than the 2015 projected expenses and the 2017 budget increases \$7.8 million over the 2016 budget. The major variances are shown below and will be discussed in the relevant expense sections that follow.

(Millions)	2015 Projection	2016 Budget	2017 Budget	16 vs 15 Incr/(Decr)	17 vs 16 Incr/(Decr)
Pumping Power	\$ 108.0	\$ 112.4	\$ 116.8	\$ 4.4	\$ 4.4
Transmission	6.5	8.9	8.0	2.4	(0.9)
Salaries & Related Costs	56.3	57.8	60.8	1.5	3.0
Amortization & Depreciation	43.8	46.4	48.0	2.6	1.6
Interest Expense	25.4	25.9	25.1	0.5	(0.8)
Other Costs	27.3	34.2	34.7	6.9	0.5
	\$ 267.3	\$ 285.6	\$ 293.4	\$ 18.3	\$ 7.8

## PUMPING POWER

The greatest variable affecting water delivery expenses is the cost of pumping power. While most General Fund operating costs (Fixed OM&R) will not vary with water deliveries, the cost of electricity to pump CAP water will. Pumping energy is consequently a variable cost. CAWCD anticipates using 2,977 gigawatt hours (GWh) of energy in 2016 and 2,978 GWh in 2017 to meet the District's pumping needs.



Picacho Pumping Plant

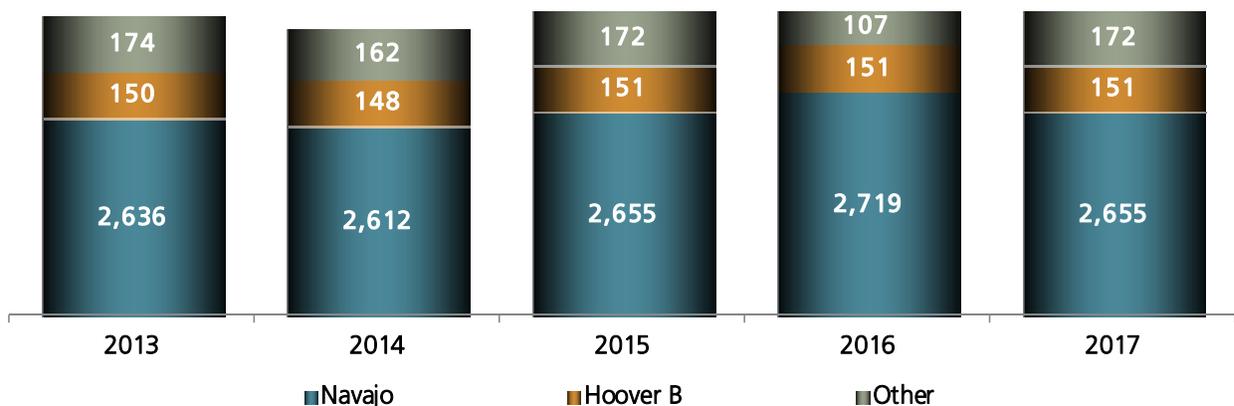
Nearly all of the pumping energy will be purchased from NGS and the Hoover Power Plant. Relatively small amounts of NGS power may be bought and sold on the open market in order to shape the pumping load, schedule maintenance activities or handle other economic conditions.

In 1984, the Hoover Power Plant Act authorized upgrading the Hoover Power Plant providing additional capacity and energy. It provides a small portion of the District's power needs. Hoover C energy is the District's lowest cost power source and is available during a declared surplus on the Colorado River. If the Secretary of the U.S. Department of the Interior declares a surplus on the Colorado River, additional water releases are made from Lake Mead, which makes Hoover C power generation available. No Hoover C is anticipated in this budget period.

The District established an Energy Risk Oversight Committee (EROC) that acts as an advisory committee on a variety of power and transmission-related issues affecting CAP operations.

## Energy Purchases

Gigawatt Hours



The District uses a portfolio approach for managing CAWCD's contract energy resources and transmission contracts. This approach focuses on designing a portfolio of projects that best meet the following guiding principles:

Minimizing volatility in cost paid by CAWCD without sacrificing reliability

Maintaining options for use of transmission

Leveraging use of existing transmission infrastructure

Bringing energy products to market

Willingness to commit capital to secure new transmission

### *Major Assumptions*

- NGS operating costs include fuel, maintenance costs, contractual inflation adjustments, regulatory requirements and a new water supply contract and capital. Starting in 2015 the Mercury and Air Toxic Standards (MATS) are also increasing operating and capital costs. Loss on the sale of reserved energy and National Environmental Protection Act (NEPA) costs in anticipation of the future lease extensions negatively impact the Navajo rate.
- Included in pumping power costs is an adjustment for the change in CAP water storage at Lake Pleasant. CAWCD can increase or lower the water stored in the lake to meet CAP operational needs. When water is pumped into the lake increasing the storage, CAWCD increases water for inventory and reduces pumping power costs. Conversely, when water is released from the lake, water for inventory is decreased and pumping power costs are increased. Minimal Lake Pleasant adjustment is expected in 2016 / 2017.
- The Lake Roosevelt inventory cost adjustment is estimated to be \$0.3 million in 2015 and 2016 as CAP utilizes water inventory in the lake for the forbearance MOU.
- There will not be any shaping or recovery revenues in the budget period.

## TRANSMISSION

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

### *Major Assumptions*

- CAP will secure firm transmission to insure reliability due to recent issues that have emerged.
- CAP will maintain its contractual agreement with Western Area Power Authority (WAPA) for transmission line maintenance.

## SALARIES AND RELATED COSTS

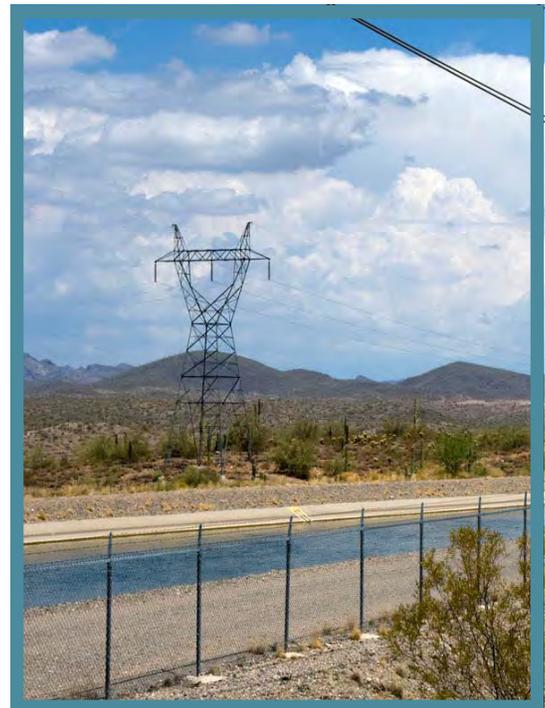
Salaries and related costs are the District's second largest expense category. CAWCD's workforce is projected to be comprised of 477 full-time equivalent (FTE) positions. Of these, about one-third are assigned to the pumping plants and other locations along the aqueduct and the balance are assigned to Headquarters in Phoenix. Approximately 90% of CAWCD's workforce is dedicated to the core water delivery business, including water delivery activities, capital projects, extraordinary maintenance projects and O&M of underground storage facilities.

There are no FTE additions in the 2016 / 2017 budget and FTEs have been held at approximately the same authorized budget level since 2013. Salaries and related costs are projected to increase slightly due to filling current vacant positions and an average budgeted 3% salary increase that has been estimated for each year based on current market surveys. CAP is seeing a significant number of retirements and prior to replacement, each position is reviewed to determine the most effective and efficient manner to fill the needs of that position and is evaluated on supporting the strategic objectives of CAP.

Although the departmental budgeted positions total more than this average, open positions and the lag time in filling those positions have created a vacancy savings equivalency of approximately 15 FTEs in recent years. Section 7, Organizational Summary, includes details on the District's organizational structure and FTE detail.

### *Major Assumptions*

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



CAP canal outside Phoenix

## AMORTIZATION AND DEPRECIATION



Maintenance employee in CAP tunnel

**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 Assumption***

- Record an amortization expense related to the PSR, which is approximately \$23.0 million/year for 2016 and 2017.
- Include depreciation of \$23.4 million for 2016 and \$24.9 million for 2017.

## INTEREST EXPENSE

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

CAWCD anticipates issuing \$30 million of debt in December 2015. Interest on this debt begins in 2016. Also, CAGR D anticipates bonding for \$10 million in December 2016 with payments beginning in January 2017.

### ***Major Assumption***

- Federal debt interest expense is \$24.4 million for 2016 and \$23.3 million for 2017.
- CAWCD bond interest expense is \$1.5 for 2016 and \$1.3 million for 2017.
- CAGR D bond interest expense \$0.4 million for 2017.

## OTHER EXPENSES

This category represents the remainder of the District's operating expenses. Operating expenses include outside services, materials and supplies, CAGR D water purchases and other business-related expenses (e.g., travel, training, medical, property and casualty insurance, rentals, overhead, etc.). Departments were instructed to keep recurring discretionary non-labor expenses flat from the 2015 budget and this goal was accomplished. The only increases to Other Expenses include the non-recurring key initiatives as shown below. Internal transactions from internal sales and expenses such as water that CAGR D purchases and self-insurance expenses that the General Fund reimburses to the Captive Insurance Fund are eliminated at the consolidated level.

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

<i>(Thousands)</i>	2016	2017
Pilot System Conservation Program	\$ 1,000	\$ -
Intentionally Created Mexican Apportionment Program	833	-
Colorado River Conservation & Binational programs	-	2,050
Board elections	910	-
Recharge site permitting renewals	200	150
EM-Steel Discharge Lines and manifold Recoat MWA (non-labor)	3,181	3,098
MSCP	3,400	3,400

## *Major Assumptions*

- Recurring discretionary non-labor expenses will be flat from the 2015 budget.
- Include key initiatives and items as indicated.
- The General Fund's budget will include amounts to fund activities that support the Integrated Strategic Plan.
- The General Fund's budget will include amounts for proper maintenance of facilities and equipment.
- The CAGR fund will include appropriate amounts to meet its replenishment obligation and support its water acquisition program.
- The Captive Insurance Fund will include expenses that are determined through actuarial calculations.



CAP Canal near Mile Post 13

# CAPITAL EXPENDITURES

Along with the District’s right to use the aqueduct system, CAWCD is responsible for the maintenance, repair and replacement of its equipment and infrastructure. This responsibility entails a CIP that may add to the existing asset base, improve or extend the life of existing assets or replace assets as they wear out. In addition, there are ongoing capital expenditures for vehicles and other equipment. CAWCD has a capitalization policy that is used to determine whether major maintenance efforts should be capitalized as additions or improvements, or expensed as repairs. Depreciation on capital assets is included in the General Fund.

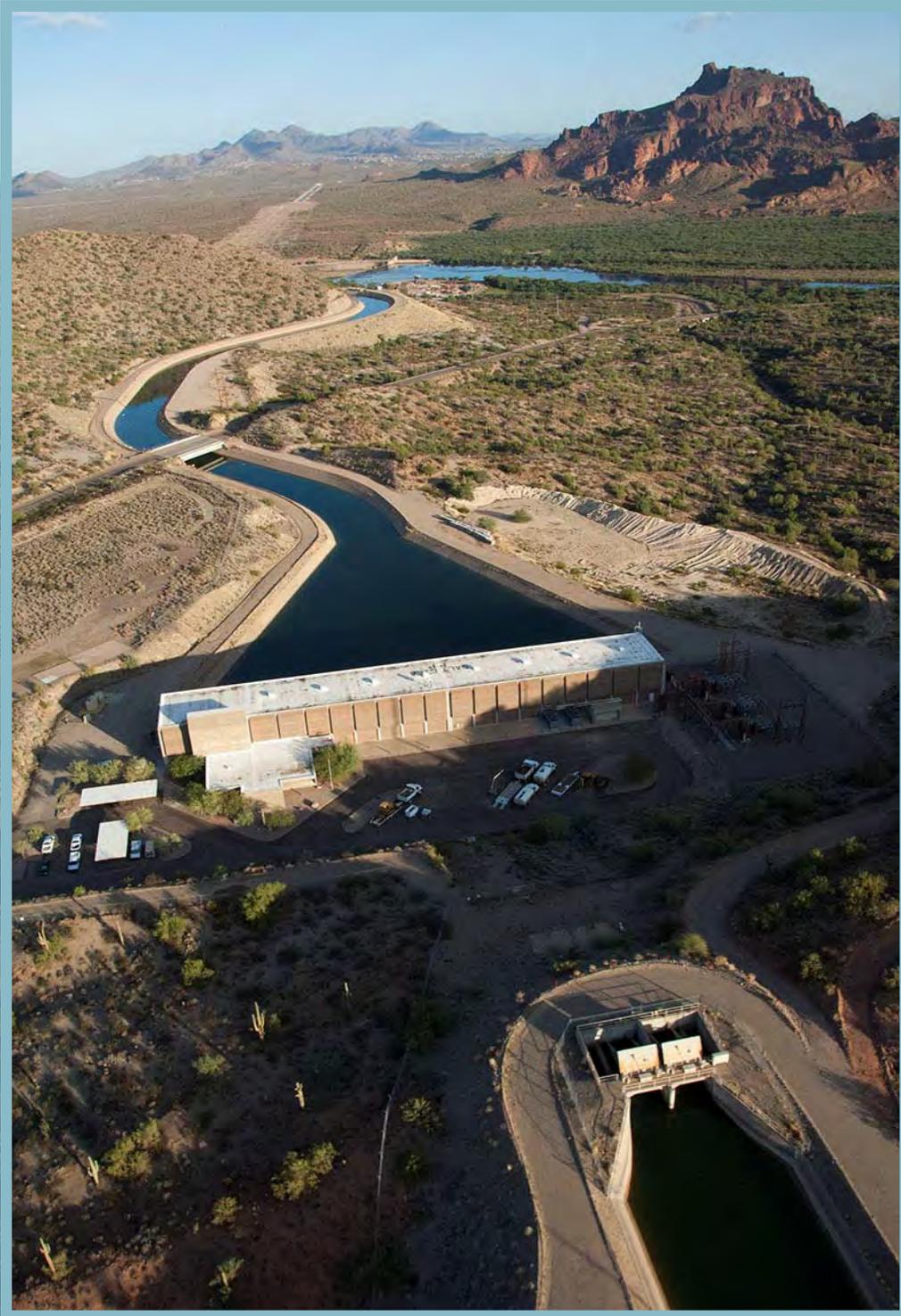
CAWCD is experiencing increased costs and capital expenditures to repair, replace and add to the existing infrastructure and equipment. Expenditures for capital equipment have increased as major pieces of 25 or 30 year-old equipment are in need of replacement. Expenditures related to the CIP are increasing as shown in the following table:

<i>(Millions)</i>	Equipment	Capital Projects	Total
2013	\$2.6	\$23.8	\$26.4
2014	8.6	26.2	34.8
2015	3.1	48.4	51.5
2016	5.8	39.4	45.2
2017	3.1	43.5	46.6

There are multiple CIP projects scheduled for the 2016 / 2017 budget. Major ongoing projects include: APS Transmission Line and Hassayampa Tap Connection, ED2-Saguaro Transmission Line Rebuild, Condition-Based Monitoring, Discharge Valve Replacements, and the Mark Wilmer Trash Rake installation. More recent projects scheduled during 2016 / 2017 include: Mark Wilmer Circuit Breaker Replacement and Compressed Air System Replacement, Superstition Mountains Recharge Project Drainage Improvements, and the Backup Supply Replacements at the Turnouts. Major projects that are scheduled to be completed in 2016 / 2017 include: As-Builts Pumping Plants Phase 2, Annunciator Replacement at the Pumping Plants, Bridge at Pima Mine Road and Elevator Replacements. Detail on Capital Projects begins on page 6-11.

## ***Major Assumptions***

- The capital budget has been historically funded on a pay-as-you-go basis and will continue to primarily rely on this funding mechanism.
- CAWCD is seeking bond financing on the three transmission projects.
- To be included in the 2016 / 2017 budget, the Project Steering Committee (PSC) must approve the project and support CAP’s strategic plan.
- Capital equipment over \$100,000 requires a financial/business case analysis to support inclusion in the budget.
- Fleet vehicles require a financial analysis to ensure the vehicles are being utilized as intended by CAWCD’s fleet vehicle policy.



Salt Gila Pumping Plant

# SELECTED FINANCIAL DATA

## STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

All Funds

(Millions)

	2013	2014	2015	2016	2017
	Actual	Actual	Projection	Budget	Budget
Operating Revenues	\$ 211.8	\$ 238.8	\$ 241.8	\$ 260.4	\$ 312.5
Operating Expenses	(217.0)	(227.4)	(241.9)	(259.7)	(268.3)
<b>Operating Income/(loss)</b>	<b>(5.2)</b>	<b>11.4</b>	<b>(0.1)</b>	<b>0.7</b>	<b>44.2</b>
Non-Operating Revenues	52.4	67.7	62.6	66.9	74.1
Non-Operating Expenses	(27.3)	(26.4)	(25.4)	(25.9)	(25.1)
<b>Total Non-operating Revenues/(Losses)</b>	<b>25.1</b>	<b>41.3</b>	<b>37.2</b>	<b>41.0</b>	<b>49.0</b>
Change in Net Position	19.9	52.7	37.1	41.7	93.2
Net Position at Beginning of Period	573.0	592.9	645.6	682.7	724.4
<b>Net Position at End of Period</b>	<b>\$ 592.9</b>	<b>\$ 645.6</b>	<b>\$ 682.7</b>	<b>\$ 724.4</b>	<b>\$ 817.6</b>

# NET POSITION

## All Funds

(Millions)

By an order of magnitude, the largest amounts of Net Position are the federal repayment liability and the corresponding permanent service right asset. Other significant assets include CAWCD's restricted and unrestricted reserves and investments; other significant liabilities include agricultural debt and accrued interest payable.

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

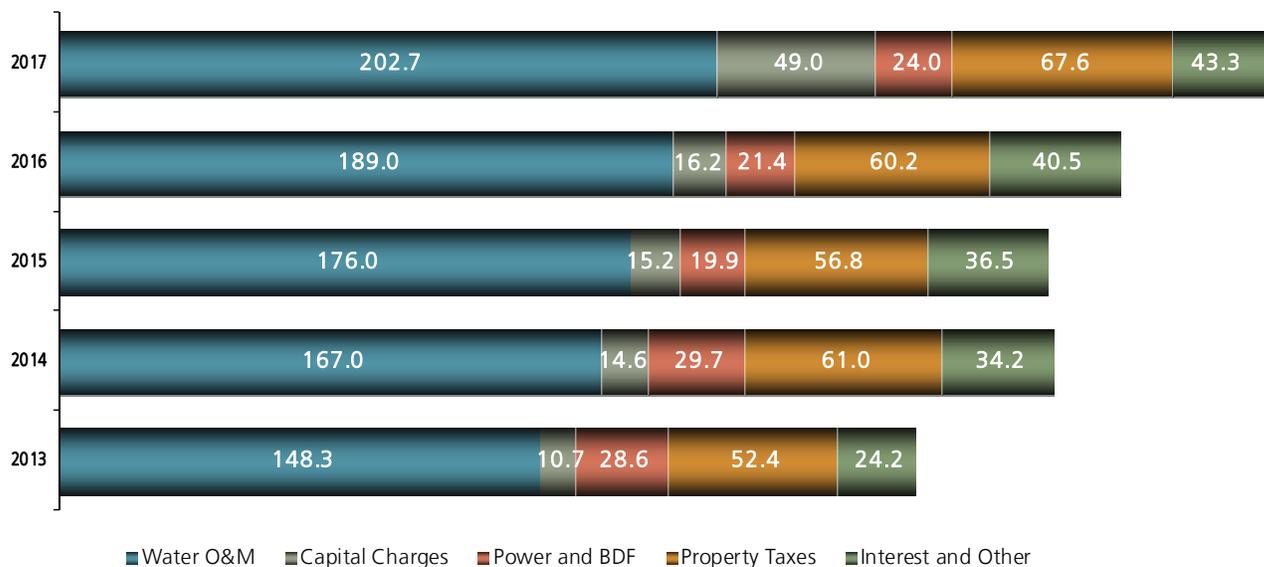
	2013	2014	2015	2016	2017
	Actual	Actual	Projection	Budget	Budget
<b>Assets</b>					
Cash and investments	\$ 295.8	\$ 335.6	\$ 358.4	\$ 370.7	\$ 409.6
Receivables	112.6	57.4	131.6	52.8	114.9
Water inventory	-	61.4	-	81.0	92.2
Capital assets					
Operating assets, Net	199.5	218.7	249.3	271.8	294.2
Permanent service right, net	1,204.4	1,181.4	1,158.3	1,135.3	1,112.3
Agricultural water allocation	88.7	88.7	88.7	88.7	45.8
Inventory and other	122.6	124.9	134.3	140.2	140.2
<b>Total Assets</b>	<b>\$ 2,023.6</b>	<b>\$ 2,068.1</b>	<b>\$ 2,120.6</b>	<b>\$ 2,140.5</b>	<b>\$ 2,209.2</b>
<b>Liabilities</b>					
Repayment obligation	\$ 1,230.1	\$ 1,203.8	\$ 1,172.4	\$ 1,141.1	\$ 1,109.7
Non-Indian agriculture 9(d) debt	1,203.8	1,172.4	1,141.1	1,109.7	1,076.8
Other liabilities	(1,015.0)	(968.1)	(898.9)	(860.9)	(824.1)
<b>Total Liabilities</b>	<b>1,418.9</b>	<b>1,408.1</b>	<b>1,414.6</b>	<b>1,389.9</b>	<b>1,362.4</b>
<b>Deferred Inflow</b>					
Customer deposits	11.8	14.4	23.3	26.2	29.2
<b>Total Deferred Inflow</b>	<b>11.8</b>	<b>14.4</b>	<b>23.3</b>	<b>26.2</b>	<b>29.2</b>
<b>Net Position</b>					
Investment in Capital Assets, less related debt	173.7	196.2	205.1	236.6	268.3
Restricted	88.7	86.6	98.0	103.1	105.0
Unrestricted	330.5	362.8	379.6	384.7	444.3
<b>Total Net Position</b>	<b>592.9</b>	<b>645.6</b>	<b>682.7</b>	<b>724.4</b>	<b>817.6</b>
<b>Total Liabilities, Def Inflows &amp; Net Position</b>	<b>\$ 2,023.6</b>	<b>\$ 2,068.1</b>	<b>\$ 2,120.6</b>	<b>\$ 2,140.5</b>	<b>\$ 2,209.2</b>

# TOTAL REVENUES

(Millions)

	2013	2014	2015	2016	2017
	Actual	Actual	Projection	Budget	Budget
<b>General Fund Operating</b>					
Water O&M charges	\$ 153.8	\$ 173.0	\$ 182.2	\$ 194.5	\$ 208.2
Water service capital charges	11.4	15.5	16.1	16.6	49.2
Power & BDF revenues	28.6	29.7	19.9	21.4	24.0
Other revenue	1.7	1.8	1.8	1.5	1.4
<b>Total General Fund Operating</b>	<b>195.5</b>	<b>220.0</b>	<b>220.0</b>	<b>234.0</b>	<b>282.8</b>
<b>General Fund Non-operating</b>					
Property taxes	52.4	61.0	56.8	60.2	67.6
Interest and other	(0.1)	6.5	5.6	6.4	6.1
<b>Total General Fund Non-operating</b>	<b>52.3</b>	<b>67.5</b>	<b>62.4</b>	<b>66.6</b>	<b>73.7</b>
<b>General Fund Total</b>	<b>247.8</b>	<b>287.5</b>	<b>282.4</b>	<b>300.6</b>	<b>356.5</b>
<b>Other Funds and Accounts</b>					
CAGR	23.3	26.5	29.6	33.6	36.5
Supplemental Water	0.1	0.1	0.1	0.1	0.2
Captive Insurance	7.5	7.9	8.1	8.5	8.8
Eliminations	(14.5)	(15.5)	(15.8)	(15.5)	(15.4)
<b>Total Revenue</b>	<b>\$ 264.2</b>	<b>\$ 306.5</b>	<b>\$ 304.4</b>	<b>\$ 327.3</b>	<b>\$ 386.6</b>

All Funds by Revenue Type (net of elims)

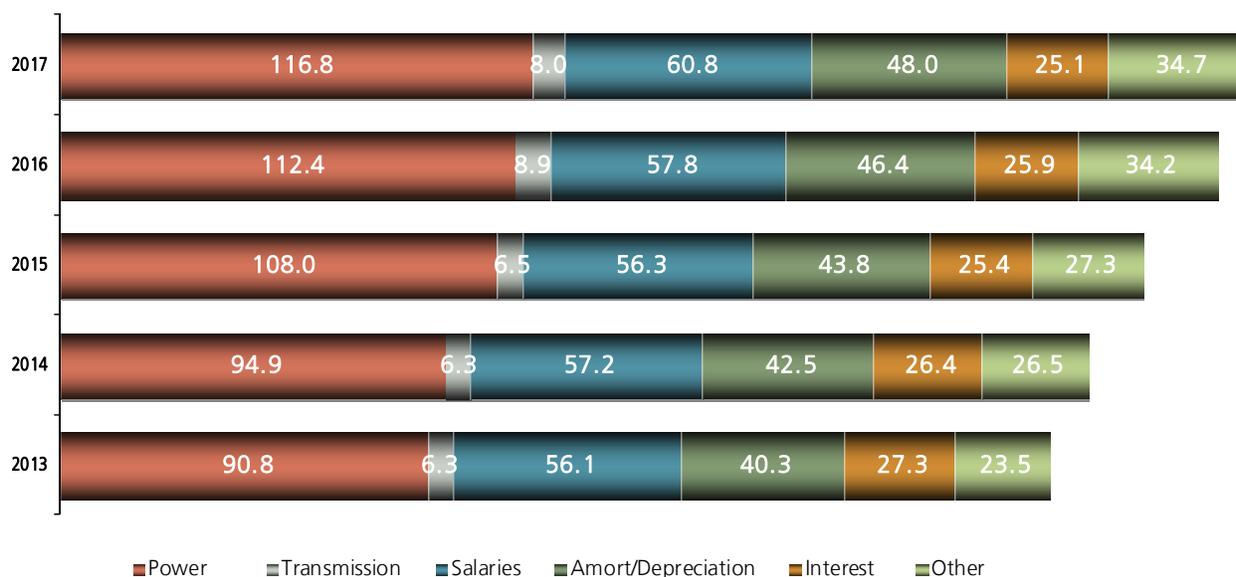


# TOTAL EXPENSES

(Millions)

	2013	2014	2015	2016	2017
	Actual	Actual	Projection	Budget	Budget
<b>General Fund Operating</b>					
Pumping power	\$ 90.8	\$ 94.9	\$ 108.0	\$ 112.4	\$ 116.8
Transmission	6.3	6.3	6.5	8.9	8.0
Salaries and related costs	55.2	56.3	55.4	57.2	60.1
Amortization and depreciation	40.3	42.5	43.8	46.4	48.0
Other expenses	24.1	24.6	25.1	30.9	30.7
<b>Total General Fund Operating</b>	<b>216.7</b>	<b>224.6</b>	<b>238.8</b>	<b>255.8</b>	<b>263.6</b>
<b>General Fund Non-operating</b>					
Interest and other	27.3	26.4	25.4	25.9	24.6
<b>Total General Fund Non-operating</b>	<b>27.3</b>	<b>26.4</b>	<b>25.4</b>	<b>25.9</b>	<b>24.6</b>
<b>General Fund Total</b>	<b>244.0</b>	<b>251.0</b>	<b>264.2</b>	<b>281.7</b>	<b>288.2</b>
<b>Other Funds and Accounts</b>					
CAGR	8.2	9.4	11.0	11.0	11.9
Supplemental Water	-	-	-	-	-
Captive Insurance	6.6	8.9	7.9	8.4	8.7
Eliminations	(14.5)	(15.5)	(15.8)	(15.5)	(15.4)
<b>Total Expenses</b>	<b>\$ 244.3</b>	<b>\$ 253.8</b>	<b>\$ 267.3</b>	<b>\$ 285.6</b>	<b>\$ 293.4</b>

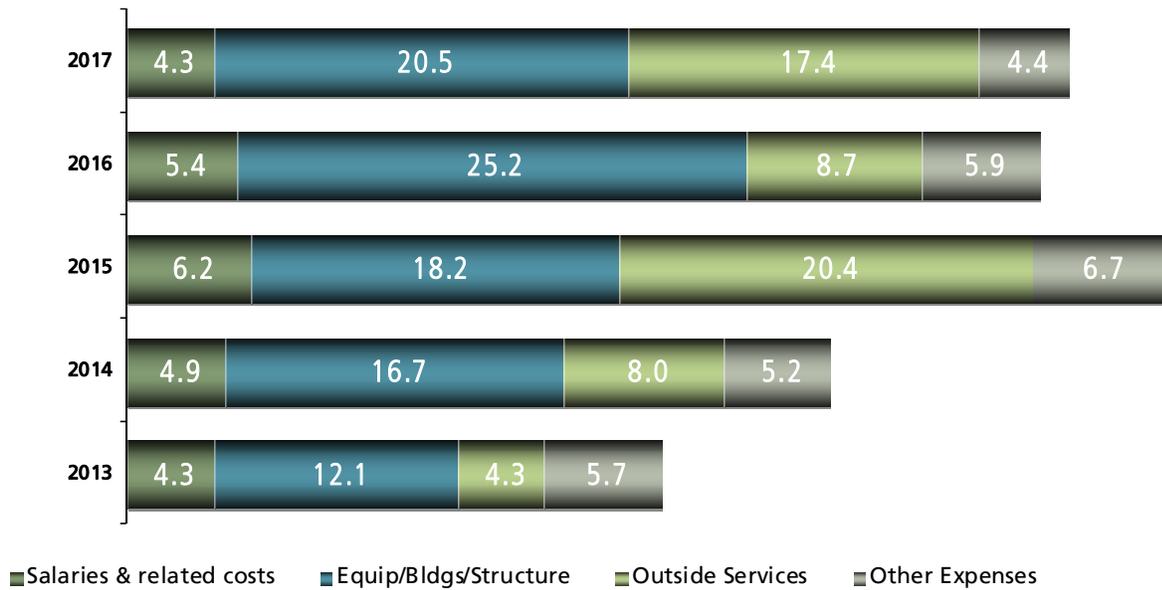
## All Funds by Expense Type (net of elims)



# CAPITAL EXPENDITURES

(Millions)

	2013	2014	2015	2016	2017
	Actual	Actual	Projection	Budget	Budget
Salaries and related costs	\$ 4.3	\$ 4.9	\$ 6.2	\$ 5.4	\$ 4.3
Equipment, buildings, and structures	12.1	16.7	18.2	25.2	20.5
Outside services	4.3	8.0	20.4	8.7	17.4
Other expenses	5.7	5.2	6.7	5.9	4.4
<b>Total Capital</b>	<b>\$ 26.4</b>	<b>\$ 34.8</b>	<b>\$ 51.5</b>	<b>\$ 45.2</b>	<b>\$ 46.6</b>



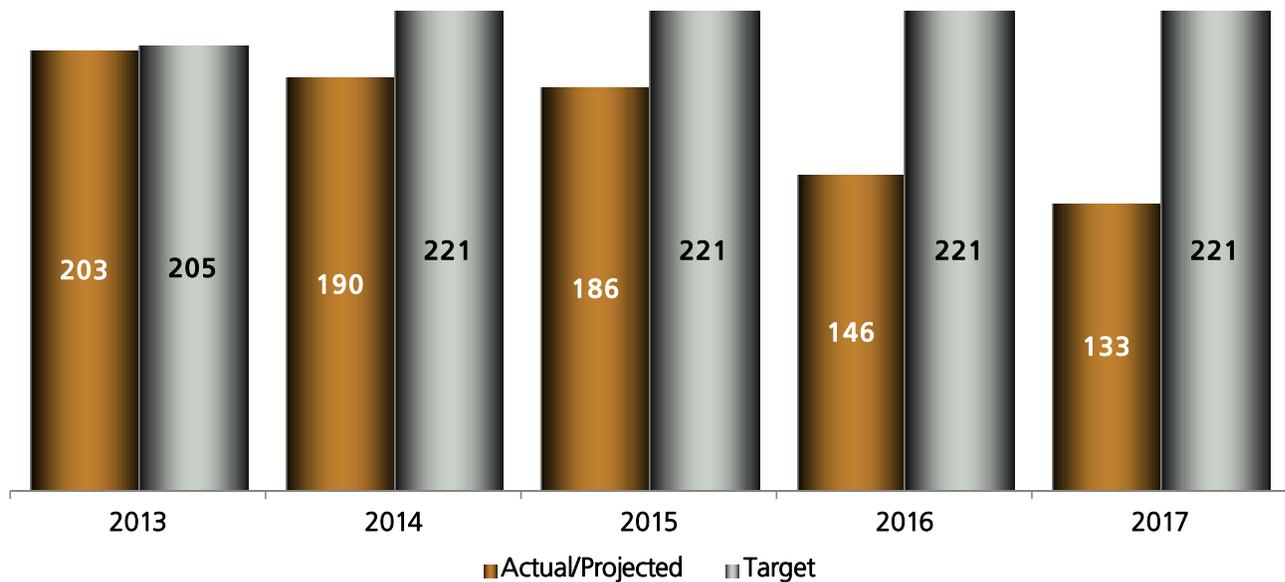
## STRATEGIC RESERVES

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

In 2014 as part of its biennial review of strategic targets, the Board revised its strategic reserve targets to \$221.0 million (based on end-of-year balances) from the previous target of \$205-\$210 million. Strategic reserves are projected to be below target at \$146 million for 2016 and \$133 million in 2017. The main drivers of this temporary decrease are significant capital projects through 2017, the cost of the agricultural consideration and incentive programs, and the poor electricity market that is impacting the value of surplus power sales. Reserves are anticipated to begin to recover in 2018 as payments are received for NIA reallocation (\$10 million annually), potentially issuing a second bonding, and taxes are freed up due to the decrease of the Ag settlement pool in 2017.

### Strategic Reserves

Millions



## CAWCD STRATEGIC DEVELOPMENT TIMELINE

1993-USBR Declares CAP Completed

1993

1996-Published 1st Strategic Plan

1997

1997-Upgraded Strategic Plan

1999

1999-Designed 1st Balanced Scorecard (BSC)

2001

2002-Defined Strategic Framework Map

2003

2004-Adopted a 2-Year Planning Cycle

2005

2006-Adopted 2006 Strategic Plan

2007

2010-Adopted 2010 Board Strategic Plan

2009

2011-Developed 2011 CAP Integrated Strategic Plan

2011

2012-Introduced "Big 5" Organization-Wide Goals

2013-Identified Guiding Principles

2013

2015-Strategic Plan Updated

2015

# INTRODUCTION & HISTORY

For 20 years, the Central Arizona Water Conservation District (CAWCD or District) Board of Directors (Board) has emphasized the importance of strategic planning. The first Strategic Plan was published in May 1996, identifying key strategies and specific programs to accomplish objectives. One year later, CAP published its first Business Plan, which reported accomplishments against the Strategic Plan and identified additional objectives for the upcoming year. The Strategic Plan was also updated in 1997 and by 1999, CAP had designed its first Balanced Scorecard, which provided a means to measure the degree to which the strategic objectives were being accomplished. Several designs were explored as strategies, programs, action plans and measures were organized, reorganized, combined and differentiated.

By the turn of the decade, CAP's business planning, reporting and measurement were becoming more sophisticated. In 2000, CAP's Budget and Business Plan were integrated into a single document which led individual departments to begin incorporating performance goals, objectives and measures into their planning processes. In 2001 the Balanced Scorecard began to coalesce around various "Key Result Areas" (KRAs). The KRAs were organized into a Strategic Framework Map, incorporating individual strategies beneath each KRA.

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

This Strategic Framework Map and the associated Balanced Scorecard, with certain improvements and revisions, remained in place through 2006, but the Board and management had already started to feel a need to build a new Strategic Plan from the ground up.



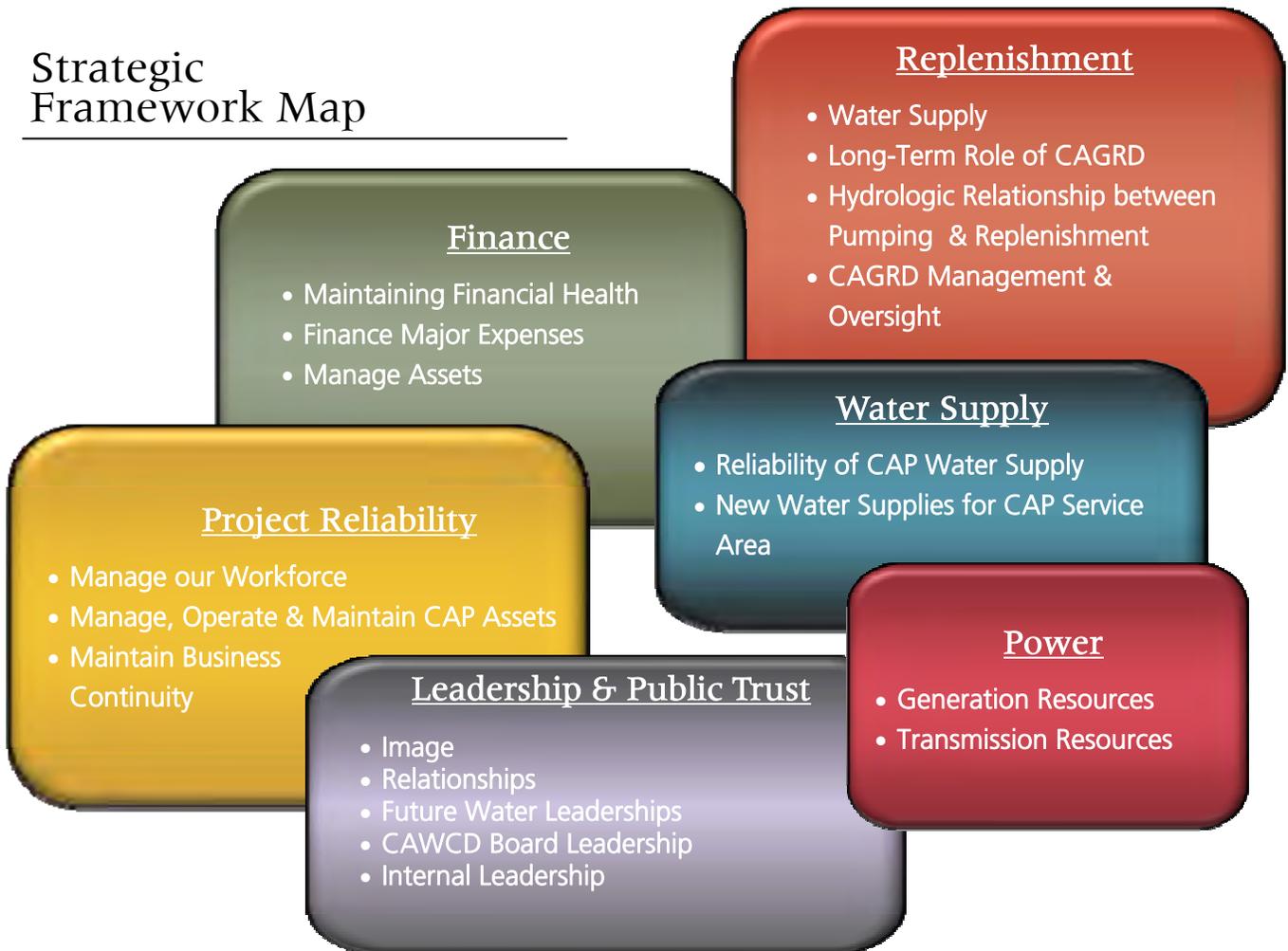
# STRATEGIC FRAMEWORK

The 2011 CAP Integrated Strategic Plan represents the fourth generation of the Strategic Plan. As with prior versions of the Strategic Plan, the 2011 CAP Integrated Strategic Plan is organized around several KRAs. Under each KRA, important strategic issues have been identified, along with strategic objectives associated with each strategic issue and the action plans necessary to achieve each result. This hierarchy of issues, objectives and action plans is referred to as the CAP Strategic Framework and it serves as the context for many other planning activities at CAP, not the least of which are the Biennial Budget and the “Big 5” Organization-Wide Objectives.

The 2011 CAP Integrated Strategic Plan includes the following KRAs:

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

## Strategic Framework Map



### *Leadership & Public Trust*

The 2011 CAP Integrated Strategic Plan emphasizes increasing knowledge and visibility of CAP, collaboration with other governmental entities and stakeholders, as well as programs to educate and develop the future leaders of both CAP and the greater water community. The 2011 Integrated Strategic Plan includes a number of action plans that support these strategic issues such as improving relationships with Native American Tribes, municipal and agricultural stakeholders as well as federal and state leaders.

### *Finance*

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

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

### *Project Reliability*

Project Reliability encompasses not only the maintenance of the physical CAP system, but also processes and people. Consequently, the 2011 Integrated Strategic Plan devotes a considerable amount of attention to managing our workforce, including objectives and action plans in the areas of maintaining a healthy, safe and secure work environment, and maintaining high levels of skills and job proficiency.

As a result of the efforts to expand the 2011 CAP Integrated Strategic Plan internally, the areas of recruitment and succession planning, institutional knowledge capture and training of both new and existing employees have received additional emphasis.

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

Process improvements include the continued refinement of the Maintenance Excellence program, first adopted in 2003, into a comprehensive Enterprise Asset Management program, increased utilization of technology, enhanced project management techniques and multi-disciplinary partnerships.

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

## *Water Supply*

CAP has junior priority with respect to water rights on the lower Colorado River. This means that in times of shortage CAP will be one of the first to have its supply reduced. Therefore, protecting and optimizing our water supply is critical. The 2011 Integrated Strategic Plan includes a number of action plans in this area, from continuing to coordinate with other basin states, the United States and Mexico on areas of common interest, to exploring alternatives to protect and enhance the existing Colorado River supply and mitigate regulatory and environmental threats to the supply.

A prolonged drought in the Colorado River basin persists, and the most recent forecasts by the BOR indicate that a shortage may be declared as early as 2017. Arizona has joined with other lower basin states and water users in the upper basin in an effort to forestall a shortage declaration through voluntary efforts to conserve water for the benefit of the entire river system.

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

## *Power*

CAP is the largest consumer of electricity in Arizona. It takes over 2.9 million megawatt hours (MWh) of energy each year to pump CAP's Colorado River apportionment into its service area. Most of this energy comes from the Navajo Generating Station (NGS), a coal-fired power plant on the Navajo Nation, of which the BOR is allotted approximately 24% of the capacity for the operation of CAP. NGS power comprises more than 90% of CAP's power portfolio. Most of the remainder comes from Hoover and New Waddell dams.

Managing threats to CAP's power generation and transmission sources has become a significant focal point for CAP. As a coal-burning plant, NGS continues to come under increasing emission control regulation. Meanwhile, CAP also holds Arizona's largest allocation of Hoover hydropower. Concerns had existed that CAP's allocation might be significantly reduced as part of the Hoover reallocation process in 2015. CAP was actively engaged in the reallocation process which resulted in CAP maintaining its allocation at historical levels. Because power is so critical to CAP and because CAP's pumps, which consume the power, are located all along the 336-mile CAP canal, the 2011 Integrated Strategic Plan places considerable emphasis on effectively managing both existing power resources and reliable cost-effective transmission resources while also developing reliable, sustainable and cost-effective replacements.

## *Replenishment*

In accordance with legislation passed in 1993, Central Arizona Groundwater Replenishment District (CAGRDR), which is part of CAWCD, provides replenishment services within the CAP service area to replace groundwater used by its members. CAGRDR members are water users who have proven a 100-year supply of groundwater but need to make their use of groundwater consistent with the state's Assured Water Supply Rules. In 2014 CAGRDR submitted its updated, 2015 Plan of Operation to the Arizona Department of Water Resources for approval. The Plan identifies approximately 37,000 acre-feet annually of current CAGRDR water supplies, slightly more than CAGRDR's current annual obligation. However, some of these water supplies are subject to partial or even total curtailment during Colorado River shortage operations. In addition, CAGRDR membership is expected to continue to grow, with the annual replenishment obligation reaching approximately 87,000 acre-feet by 2034. For these reasons CAGRDR must continue to acquire new water supplies to meet its future replenishment obligation.



# 2011 INTEGRATED STRATEGIC PLAN

The latest version of CAP's Strategic Plan is the 2011 CAP Integrated Strategic Plan, which is regularly reviewed.

The genesis of the 2011 Integrated Strategic Plan was in the 2010 Board's Strategic Plan published in February 2010. This plan was the result of an update of the 2006 Plan by the Board.

After the adoption of the 2010 Board Plan, CAP conducted two studies. The first study, the Enterprise Management Assessment, reviewed management practices and effectiveness in the following areas:

- Organization/Structure
- Mission/Vision Suitability and Sustainability
- Governance
- Planning Effectiveness
- Communications
- Risk Profile
- Culture
- Technology
- Succession Readiness
- Practices, Procedures, Processes and Internal Control Environment

The second study, the Maintenance Organization Assessment, evaluated the results of the Maintenance Excellence program that had been implemented and refined at CAP since 2003, benchmarked CAP's maintenance practices against 42 national and international water utilities and identified areas for improvement.

As these two studies were conducted, the 2010 Board Plan was simultaneously reviewed, evaluated and expanded through a number of management meetings, focus groups and employee workshops.

The work of the two studies and the internal expansion of the 2010 Board Strategic Plan were closely coordinated. Results and recommendations arising out of each effort were cross-validated and refined. Newly identified recommendations were folded into the Strategic Framework of the 2010 Board Strategic Plan as additional strategic objectives and action plans.

The result, the 2011 Integrated Strategic Plan, combines the strategic vision and guidance provided by the Strategic Framework and the Board's externally-focused action plans with the internally-focused action plans identified by the staff as indispensable in carrying out the strategic vision of the Board.

The 2011 Integrated Strategic Plan originally contained over 200 individual action plans, double the number in the 2010 Board Strategic Plan. The consolidation of external and internal action plans into the Strategic Framework has allowed for a more thorough infusion of the Strategic Plan goals and objectives throughout CAP than has been accomplished in the past. Ultimately, every planning effort in CAP, from the budget to individual employee performance plans, has had a clearly-delineated basis in the Strategic Plan.

In 2012 a Strategic Planning Oversight Committee (SPOC) was formed to track and manage the Integrated Strategic Plan. The committee completed an enterprise risk assessment in order to help evaluate and prioritize Strategic Plan initiatives. Action plan status was reviewed and updated several times throughout the year and reported to senior management, employees and the Board. As items were completed, they were removed from the Strategic Plan. Strategic issues without specific action plans, but with ongoing strategic importance that influence CAP activities and initiatives were moved into a special document entitled "Guiding Principles." Target time frames for the expected completion of specific action plans were updated regularly and a number of initiatives have been designated "Ongoing." A small number of initiatives identified in the Strategic Plan that were no longer considered germane have been placed in a "Parking Lot" for re-evaluation when the plan is next updated. The progress statistics for the 2011 Integrated Strategic Plan as of June 2015 are as follows:

Completed Items	20%
Active (Ongoing or In-Progress Initiatives)	40%
Guiding Principles	20%
Parking Lot	2%
Tactical	18%

A tabular presentation of the 2011 Integrated Strategic Plan begins on the following page.

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans	
L E A D E R S H I P & P U B L I C T R U S T	Relationships with Customers and other Stakeholders	Continue to strengthen relationships with customers & other stakeholders	Fully integrate awareness of water quality and its importance to our customers with how CAP operates and maintains the system, and communicates to customers and stakeholders.	
			Improve relationships with Native American Tribes, municipal and agricultural customers (including irrigation districts).	
			Improve working relationships with federal and state leaders with water interests outside the three-county service area.	
		Encourage community involvement	Encourage increased leadership, outreach and public involvement of CAP within the greater community and support CAP employees' volunteer activities.	
				Develop and distribute canal educational curriculum and include education of same in H2O4U educational materials.
	Future Water Leadership	Foster development of future water leaders	Identify and develop opportunities for involvement in leadership organizations.	
	Board Leadership	Provide strategic vision and direction for CAP	Enhance the Board's understanding of the legal, regulatory and historical heritage of CAP/CAWCD (e.g., enabling authorities, relationships with the State of Arizona and the United States, and position of leadership in state and federal water and power policy development).	
	Internal Leadership	Foster a CAP culture that values trust, respect, collaboration and innovation	Increase presence and involvement of senior management throughout the organization.	
			Build relationships among employees and work groups by increasing internal communication, aligning employees with CAP's business initiatives, and focusing on teamwork across departments.	
	F I N A N C E	Financial Health	Maintain coordinated financial strategies (budget, reporting, revenues, expenditures, rates, taxes, reserves)	Strengthen linkages among the various financial planning processes. Illustrate and explain how individual financial decisions are interrelated.
Investigate the feasibility of a data warehouse to pull information from among multiple sources and allow data to be saved in different formats.				
	Major Expenditures	Coordinate projected uses of funds with appropriate sources of financing	Evaluate how costs of major expenditures can be properly allocated to the beneficiaries of those expenditures under appropriate contracts and policies.	

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
<p style="text-align: center;">P R O J E C T  R E L I A B I L I T Y</p>	<p style="text-align: center;">CAP Workforce</p>	<p>Maintain a safe, healthy and secure working environment</p>	<p>Successfully continue CAP as a Voluntary Protection Program (VPP) Star site.</p>
		<p>Promote healthy habits in the workforce. Enhance CAP's wellness program to focus on multiple health-related factors.</p>	
		<p>Maintain high levels of skills and professional proficiencies</p>	<p>Conduct formal periodic reviews of departmental staffing levels for the basis of workload and workflow analyses or other methods to determine if levels are consistent with workloads.</p>
		<p>Consider modifications to the current organizational structure to improve communication and discourage creation of silos (e.g., matrix management).</p>	
		<p>Develop an organization-wide job framework focusing on job levels and descriptions, career paths, requirements for future roles, training and compensation.</p>	
		<p>Improve and manage the pay performance system (e.g., enhance CAP's employee performance appraisal methodology).</p>	
		<p>Investigate incentives that promote employee job improvement and success.</p>	
		<p>Improve awareness and enforcement of CAP's policies, practices and procedures.</p>	
		<p>Increase management and employee self-service within five years, improve recruitment capabilities and improve benefits.</p>	
		<p>Develop an implementation plan to optimize workflow and functional efficiencies throughout CAP.</p>	
		<p>Optimize staffing, recruitment and succession planning</p>	<p>Manage the timing of retirees leaving CAP (e.g., consider developing retirement tools that comply with ASRS rules and CAP policies).</p>
		<p>Explore partnerships with higher education institutions in order to assist in development of future water professionals; develop internship programs with these educational institutions as a source of new employees.</p>	
		<p>Expand the Succession Planning Program beyond the current position-specific focus so as to identify high-potential candidates that might benefit the organization in a number of roles.</p>	
		<p>Implement a program to capture and convey institutional knowledge to incoming workforce; include knowledge-based IT systems (e.g., online Operations &amp; Maintenance (O&amp;M) systems, internal wiki).</p>	

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans	
P R O J E C T  R E L I A B I L I T Y	CAP Workforce	Training	Utilize cross-training to develop a multi-skilled workforce. Tools include job shadowing, mentoring, cross-training between positions that contain overlapping or complementary skills, and cross-training for career development and business continuity purposes.	
			Take advantage of technological advances to expand skills, workforce knowledge and increase productivity.	
			Provide a mechanism for internal transference of information gained from training.	
	Asset Management, Operation and Maintenance	Provide reliable and cost-effective water deliveries		Protect the canal system from encroachment, trespassing, crime, illegal dumping, use of illegal substances, etc. as the Phoenix, Tucson and Casa Grande metropolitan areas grow.
				Run a reliability-centered maintenance program.
		Improve Maintenance Excellence Processes		Assess CAP's maintenance practices against established internal processes, utilizing proactive asset management protocols.
				Implement cradle-to-grave asset management and asset sustainability programs (e.g., expand application of reliability-centered maintenance concepts, enhance effective communications between employees and management on proactive equipment replacement and repair, and improve understanding of the centralized approach to maintenance).
				In order to determine when equipment is in decline, promote predictive maintenance by increasing condition-based monitoring instrumentation at CAP facilities (e.g., temperature, vibration at pumping plants.) Develop methods for tracking, sharing and evaluating resulting information.
				Address issues of aging, obsolete and potential asset failures of CAP equipment by developing an action plan to determine asset replacement alternatives.
		Improve technology management		Develop an IT strategic plan, governance framework and enterprise architecture to align IT strategies with business and operational strategies.

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
<b>P R O J E C T  R E L I A B I L I T Y</b>	<b>Asset Management, Operation and Maintenance</b>	Improve technology management	Improve data management and processing throughout CAP to maximize collaboration across the organization. Enhance information sharing by eliminating database silos (e.g., link operational and maintenance databases; SCADA data and Livelink/Infor).
			Implement web services to securely share information with the outside world including consultants and other utilities.
			Review Geographic Information System (GIS) program: link 3-D modeling and GIS functions, streamline sharing of GIS data with internal and external customers, clarify relationship between the It GIS program and the Engineering GIS services.
			Automate manual and paperless processes and link enabling systems to increase workflow efficiency (e.g., merge multiple systems to improve efficiency, decrease risk of process breakdowns, allow for easier reconciliation of information; eliminate redundant data entry).
		Expand the mobile asset management system (e.g., preventive maintenance processes through the use of wireless hand-held devices).	
		Promote environmental sustainability	Implement an Environmental Management System (EMS) that considers social, environmental and financial factors, and includes training, auditing and outreach components.
	Enhance CAP's environmental compliance program in all areas of environmental performance to achieve a higher level of compliance and excellence (e.g., incorporate responsibility for compliance with environmental goals and requirements in performance planning, including managers and supervisors).		
	Commit to continued environmental improvement in waste management, reduction and disposal.		
<b>Business Continuity</b>	Assess and manage enterprise risk	Create a decision-making framework that evaluates and mitigates risks of varying levels and types (e.g., business, technology, financial, workforce, property/infrastructure, operations).	

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
P R O J E C T  R E L I A B I L I T Y	Business Continuity	Prepare for business disasters and threats	Update and improve Business Disaster Recovery Plan, focusing on Continuity of Operations Planning and using the new Business Impact Analysis (BIA) guidelines.
			Prepare for potential pandemics or other events severely limiting workforce availability.
			Protect and secure CAP's Information Technology assets and information. Protect sensitive business information, vital records and preserve historical information.
			Prepare and plan for potential threats to CAP water operations.
W A T E R  S U P P L Y	Supply Reliability	Participate in the management of the Colorado River to optimize CAP water availability	Support studies and programs to advance the long-term operation of the Yuma Desalting Plant (YDP) or other suitable alternatives.
			Develop and implement strategies for maximizing CAP's use of surplus Colorado River water and unused Arizona entitlement.
		Protect CAP's Colorado River entitlement	Support new and updated augmentation studies and pilot programs (e.g., Basin States Augmentation Program, ocean desalination, weather modification, watershed management, phreatophyte removal).
		Identify and manage risks posed by shortage, drought and climate change	Identify potential impacts of climate change on CAP supplies and develop adaptation strategies.

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
W A T E R  S U P P L Y	<b>Supply Reliability</b>	Coordinate internal efforts to ensure supply and delivery reliability	Develop, implement and maintain an integrated resource plan (IRP) to include water resources, policies, regulation, etc. Coordinate with the power IRP.
			Integrate recharge and recovery activities more fully into management and operation of the CAP system.
			Develop a long-term strategic plan for recharge activities to maximize delivery of water supplies to customers.
		Prepare for recovery of water stored by the AWBA	Develop cooperative agreements to implement recovery where appropriate.
	Permit and construct facilities needed to implement recovery. Recognize the changing role CAP will play in terms of recovery planning such as the need to manage, operate and maintain well fields and associated infrastructure.		
	<b>New Water Supplies</b>	Respond to changing reliability needs of our customer	Complete and implement appropriate wheeling agreements.
		Coordinate and implement CAP's ability to wheel non-project water	Enhance cross-departmental involvement and coordination in water supply acquisition activities and ensure coordination of appropriate departments (e.g., Engineering) during the new water supply planning and acquisition phase.
			Explore demand management as a component of water supply planning.
		Explore possibilities for public/private partnerships.	
		Engage in the reallocation of CAP Non-Indian Agriculture (NIA) priority water, including future Indian settlements	Work with Arizona Department of Water Resources (ADWR) and stakeholders to develop an appropriate strategy for reallocation of CAP NIA water.

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
P O W E R	Generation Resources	Maintain existing generation resources until appropriate alternatives are available	Actively manage and respond to legislative, legal and regulatory issues impacting NGS.
			Engage Indian tribes and other stakeholders in discussions regarding potential economic impacts resulting from Environmental Impact Statement (EIS), National Environmental Protection Act (NEPA) process NGS rulemaking and potential federal legislation.
			Actively influence Arizona Power Authority (APA) reallocation process regarding Hoover Power.
		Plan for new, reliable, sustainable, cost-effective generation resources	Develop a long-term energy strategy and integrated resource plan that includes a diversified and sustainable supply portfolio. Coordinate with the water IRP.
	Prepare for eventual replacement of NGS.		
	Explore possible partnerships with municipalities, utilities, merchants and public or private parties to develop new generation resources.		
	Transmission Resources	Effectively manage costs	Pursue transmission interconnection agreements that will reduce net CAP energy costs.
Enhance transmission reliability		Create CAP transmission redundancy where feasible and appropriate.	
		Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative generation resources.	

# STRATEGIC PLAN - ACTIVE INITIATIVES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
<b>R E P L E N I S H M E N T</b>	<b>Water Supply</b>	Acquire and maintain an appropriate mix of long-term and short-term water supplies to meet future obligations	Aggressively acquire water supplies as outlined in Plan of Operation.
		Develop and implement revenue generation mechanisms (i.e., bonding, rates, fees) that are sufficient to carry out water supply acquisition plan.	
	<b>Long-term Role of the CAGRD</b>	Identify and implement appropriate conditions of membership	Evaluate requirement that prospective CAGRD members commit effluent to reduce CAGRD's replenishment obligation.
			Investigate establishing maximum replenishment obligation for a member at time of enrollment.
	<b>Relationship between Groundwater Pumping and Replenishment</b>	Identify CAGRD roles, responsibilities and capabilities	Encourage ADWR's efforts to investigate potential areas of excessive groundwater declines.
	<b>CAGRD Management and Oversight</b>	Maintain CAGRD's financial health	Manage implementation of CAGRD revenue bonding authority and implement appropriate rates and fees necessary to finance CAGRD operations, major expenditures and manage CAGRD's assets.
Improve coordination between Arizona Department of Water Resources (ADWR) and CAGRD		Establish communication protocols regarding application review and issuance of designations of assured water supply (including modifications) that rely on CAGRD replenishment.	

# STRATEGIC PLAN - GUIDING PRINCIPLES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
L E A D E R S H I P  &  P U B L I C  T R U S T	<b>Knowledge and Visibility of CAP</b>	Improve public understanding about the function and importance of CAP	Collaborate with government entities and stakeholders.
	<b>Relationships: Customers and other Stakeholders</b>	Continue to strengthen relationships with customers & other stakeholders	Cooperatively identify goals and logistics for public processes involving Board, staff, customers and stakeholders.
			Continue to educate, inform, participate, engage and respect broad range of stakeholders and CAP employees.
			Continue to enhance transparency and efficiency of CAP business processes (e.g., procurement of goods and services, internal audit program, CAP land use permits.)
	<b>Future Water Leadership</b>	Position CAP as a recognized leader in water and energy management	Actively engage at national, state and regional levels to promote the interests of CAP and its constituents.
	<b>CAWCD Board Leadership</b>	Provide strategic vision and direction for CAP	Enhance the understanding of CAP's mission and vision to address questions related to CAP's role in service area, statewide and regional water and power issues.
<b>Internal Leadership</b>	Foster a CAP culture that values trust, respect, collaboration and innovation	Prioritize and link business group activities to the Internal Strategic Plan, including level of effort and budget requirements. Incorporate business plans into the biennial budget.	

# STRATEGIC PLAN - GUIDING PRINCIPLES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
<b>F I N A N C E</b>	<b>Maintaining CAP's Financial Health</b>	Effectively communicate financial issues to Board and stakeholders	Continuously evaluate and resolve financial threats. <hr/> Utilize the quarterly financial review process to routinely identify changes in business conditions and the appropriate responses necessary to maintain expected financial outcomes (e.g., budget performance and rates), and demonstrate prudent management of CAP resources.
		Maintain coordinated financial strategies (budget, reporting, revenues, expenditures, rates, taxes, reserves)	Develop and maintain an appropriate reserve strategy.
	<b>Financing Major Expenditures</b>	Establish a flexible financing strategy	Coordinate financing and reserve strategies.
		Coordinate projected uses of funds with appropriate sources of financing	Identify resources required and financing sources prior to approval of major initiatives; develop business plans with appropriate exit strategies.
	<b>Managing Assets</b>	Maintain financial plans to meet the management requirements of CAP assets	Maintain a long-term capital improvement plan (CIP) consistent with ensuring system reliability, including major equipment replacement and rehabilitation.

# STRATEGIC PLAN - GUIDING PRINCIPLES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans	
P R O J E C T  R E L I A B I L I T Y	Managing CAP Workforce	Establish CAP as the regional "Employer of Choice"	Maintain a competitive pay and benefits package.	
			Manage employee turnover.	
			Implement programs that promote diversity in the workplace including building a workforce that reflects the communities that CAP serves.	
		Maintain high levels of skills and professional proficiencies	Provide training on operations and maintenance of new equipment.	
	Asset Management, Operation and Maintenance	Provide reliable and cost-effective water		Consistently deliver CAP's full annual Colorado River apportionment.
				Maintain Enterprise Resource Planning (ERP) systems including Infor, Oracle, Livelihood, and GIS systems, keeping up to date with current upgrades and patches.
		Improve Maintenance Excellence Processes		Increase two-way communication among managers, supervisors, maintenance engineers and crews to provide meaningful information to staff (e.g., key reports, necessity of work assignments, need for asset modifications).
		Enhance effective project management		Coordinate closely with maintenance regarding project development, completion and transfer of information (e.g., technical manuals, Standard Operating Procedures) for maintenance purposes.
		Improve technology management		Remain abreast of technological developments to meet emerging needs of existing and incoming workforce (e.g., through training; internship programs with educational institutions; networking with private industry).
				Systematically review existing technologies in terms of available improvements in functionality and alternative implementations that may result in synergies among programs.
				Balance perceived advantages of technology with appropriate assumption of risk (e.g., user access needs vs security requirements).
		Promote environmental sustainability		Recognize the increasing biological issues impacting the CAP canal system (e.g., Caddisflies, Quagga Mussels, weeds, fish).

# STRATEGIC PLAN - GUIDING PRINCIPLES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
W A T E R  S U P P L Y	Reliability of the CAP Water Supply	Participate in the management of the Colorado River to optimize CAP water availability	Actively work with other Basin states in order to influence Colorado River management decisions.
		Protect CAP's Colorado River water entitlement	Actively participate in decision-making regarding bi-national programs (e.g., Mexico shortage-sharing, ICMA). Maintain cooperative relationships with Mexico regarding Colorado River supplies and water quality issues.
		Coordinate efforts to sustain CAP's ability to deliver all available Colorado River water	Continue to look for opportunities to mitigate CAP's junior priority through congressional action and/or agreements with other Basin states.
			Aggressively oppose and resolve threats to Arizona's Colorado River entitlement.
			Support full funding of the Multi-Species Conservation Program (MSCP).
			Maximize utility of the CAP system, including delivery capacity, cost-effectiveness, operational flexibility, etc.
	Evaluate options to manage the Mark Wilmer/Bill Williams River interface, silt removal within the canal and pumping plant forebays, algae removal, etc., to maintain operational capacity and reduce water quality problems.		

# STRATEGIC PLAN - GUIDING PRINCIPLES

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
P O W E R	Generation Resources	Effectively manage costs	Continue to participate in NGS O&M Committee, including audits.
			Continue use of Energy Risk Oversight Committee to make decisions on energy purchases, sales and hedging strategies.
			Anticipate and respond to regulatory requirements of CAP's expanding involvement in power, purchasing and marketing (e.g., internal compliance with NERC/WERC standards).
		Maintain existing generation resources until appropriate alternatives are available	Effectively administer the current power portfolio while planning for the future.
	Transmission Resources	Effectively manage costs	Anticipate and respond to regulatory requirements of CAP's expanding involvement in transmission management (e.g., Federal Energy Regulatory Commission (FERC) / Western Area Power Administration (WAPA) regulations).
			Enhance transmission reliability
		<p>Continue to participate in regional transmission planning and influence line siting to benefit CAP.</p> <p>Provide effective maintenance and replacement planning of transmission infrastructure to ensure continued system reliability.</p>	
R E P L E N I S H M E N T	CAGR Management and Oversight	Regularly review CAGR status as compared to projections in the Plan of Operation	Perform and document a formal review of CAGR at least every 5 years.
			Prepare annual report showing membership and corresponding projections of obligations and include it as part of annual report filed with ADWR.



# STRATEGIC PLAN - COMPLETED ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
LEADERSHIP & PUBLIC TRUST	Image: Education/ Knowledge and Visibility of CAP	Educate about CAP and improve understanding of water and power issues and canal safety	Develop and distribute canal safety educational curriculum for K-12 and include segment on same in H2O4U student education materials.
		Increase Board members' understanding of the electric power environment, operations and policies	Continue to provide training for Board members and customers in electric power economics.
			Continue to provide power primer as a reference for orientation for new Board members.
	CAWCD Board Leadership	Define how Board members effectively represent CAP and its positions	Publish organizational chart on CAP website.
			Adopt Board operations manual.
	Internal Leadership	Build a strong CAP work community	Create an open channel or mechanism for all staff to propose ideas for consideration by senior management and to expand on opportunities for staff to report outstanding achievements.
FINANCE	Maintaining CAP's Financial Health	Maintain coordinated financial strategies (budget, reporting, revenues, expenditures, rates, taxes, reserves)	Establish a mid-term rate update mechanism (odd years).
			Develop an asset management cost structure to easily measure and control activity-based costs, including tracking costs relative to individual assets or activities.
		Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	Develop a strategy to maintain stable and predictable rates, including establishment of appropriate reserves, a rate-setting methodology and rate stabilization mechanism to be used during a shortage.
			Evaluate appropriate pass-through mechanisms for unpredictable costs, including rate reconciliation and rate stabilization.

# STRATEGIC PLAN - COMPLETED ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
FINANCE	Managing Assets	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	Develop and implement post-2011 strategies for use of power generation and transmission assets.
			Implement the Enterprise Financial Planning (EFP) system within two years.
			Identify the next Enterprise Resource Planning (ERP) system within two years.
PROJECT RELIABILITY	Managing our Workforce	Maintain a safe, healthy and secure working environment	Successfully complete all requirements necessary for CAP to continue as a VPP Star site.
		Maintain high levels of skills and job proficiency among employees	Conduct salary surveys that compare CAP to similar organizations and that reflect the breadth and range of skill sets within CAP positions. Incorporate the need to maintain internal equity when evaluating survey results.
			Consider multi-skilled positions where appropriate. Ensure that multi-skilled workers possess the highest levels of skills when handling multiple functions, particularly with respect to safety measures.
		Training	Develop a robust supervisory/management training program that includes communication, leadership, personnel management, etc.
			Provide more interface and cross-training between engineering inspectors and maintenance engineers to enhance communication, consistency, quality control and safety.
			Develop a training program for staff who routinely interact with the public.
	Develop system to ensure maintenance of and access to training records, including safety training.		
	Effectively Manage, Operate and Maintain CAP Assets	Provide reliable and cost-effective water deliveries	Replace aging Supervisory Control and Data Acquisition (SCADA) system with a new system, integrating with other systems to enhance the flow of information.
			Complete implementation of an automated data collection system to retrieve information from the Programmable Logic Controllers (PLCs). Split between information Technology and Maintenance.

# STRATEGIC PLAN - COMPLETED ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
P R O J E C T  R E L I A B I L I T Y	Effectively Manage, Operate and Maintain CAP Assets	Expand Maintenance Excellence to Enterprise Asset Management	Investigate and participate in external benchmarking with similar utilities.
			Investigate external reviews and assessments of CAP maintenance practices.
			Reinstate key predictive maintenance techniques to enhance major assets condition evaluation on critical assets.
			Develop an exercise program for equipment not often utilized due to water demand conditions.
		Enhance effective project management	Improve project development and management by involving all necessary departments upfront (e.g., Engineering Services, Purchasing, Maintenance, Finance) to define project needs, requirements, costs, procurement plan and timeline.
	Maintain Business Continuity	Prepare for business disasters and threats	Establish mutual aid partnerships with other regional utilities.
Evaluate need for additional resources to protect existing and new water and power supply assets, such as new transmission lines, on a 24/7 basis.			
W A T E R  S U P P L Y	Reliability of the CAP Water Supply	Coordinate efforts to sustain CAP's ability to deliver all available Colorado River water	Achieve closure on the issue of Tucson reliability.
		Complete and implement recovery plan	Develop and adopt policy regarding portion of M&I subcontract entitlements to be protected during shortage.  Enhance internal coordination in development of the recovery plan and implementation schedules (e.g., Engineering and Planning).
	New water supplies for the CAP service area	Identify and acquire new water supplies without harming existing CAP contractors	Ensure coordination of appropriate departments (e.g., Engineering) during the new water supply planning and acquisition phase.

# STRATEGIC PLAN - COMPLETED ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
P O W E R	Generation Resources	Effectively manage costs	Migrate to the post-2011 power regime. Modify procedures as necessary to shape the use of NGS energy reserved for project pumping and displace the point of delivery to reduce CAP energy costs.
		Maintain existing generation resources until appropriate alternatives are available	Work with stakeholders to pursue passage of post-2017 Hoover power legislation.
		Develop new, reliable, sustainable, cost-effective generation resources	Identify and evaluate short-term/back-up generation resources.
	Evaluate alternative generation resources including renewables.		
	Transmission Resources	Effectively manage costs	Pursue partnership arrangements for maintaining CAP transmission assets to reduce CAP water delivery costs.
			Continue to evaluate securing control over non-integrated CAP transmission assets.
R E P L E N I S H M E N T	Long-Term role of the CAGR	Create a new vision for CAGR	Create a new plan of operation for approval by 2015.
			Define need for any new legislation.

# STRATEGIC PLAN - TACTICAL ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
L E A D E R S H I P  &  P U B L I C   T R U S T	<b>Knowledge &amp; Visibility of CAP</b>	Improve public understanding about the function and importance of CAP	Increase Board and stakeholder interaction by further developing and identifying public speaking opportunities and public presentations.
			Further develop amount and type of content presented electronically to internal and external entities.
			Find opportunities for CAP to host or sponsor conferences where our messages are the primary ones.
	<b>Relationship with Customers &amp; other Stakeholders</b>	Continue to strengthen relationships with customers & other stakeholders	Provide more detailed information on website regarding activities of the District, issues of interest, priorities and responsibilities of the Board, including specific contact information, in a manner that is informative to the public.
			Encourage community involvement
	<b>Future Water Leadership</b>	Foster development of future water leaders	Be recognized as an industry leader by participating in professional and business organizations, including membership, participation on technical committees and presentation and publication of papers.
			Promote CAP's involvement in statewide trail development and management; work with outside entities to provide access to CAP trail.
	<b>Board Leadership</b>	Provide strategic vision and direction for CAP	Coordinate workshops on federal and state legislative processes and activities regarding water quality, power generation and similar areas of interest to CAP and stakeholders.
	<b>Board Leadership</b>	Provide strategic vision and direction for CAP	Produce issue/action sheets on significant issues addressed by Board.
	<b>Internal Leadership</b>	Foster a CAP culture that values trust, respect, collaboration and innovation	Communicate the intent and purpose of strategic initiatives, policies and business decisions so that they are understood and supported throughout the organization.
Develop and communicate common, organization-wide performance goals for management and employees annually (e.g., safety goal, financial goal).			

# STRATEGIC PLAN - TACTICAL ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
F I N A N C E	Financial Health	Maintain coordinated financial strategies (budget, reporting, revenues, expenditures, rates, taxes, reserves)	Improve communication between the cost centers and the finance group during budget development, quarterly financial review, financial re-forecasting and budgetary decision-making.
	Major Expenditures	Implement and maintain a flexible financing strategy	Evaluate financing mechanisms appropriate for CAP to meet future funding needs, including pay-as-you-go (rates and taxes), reserves and bonding.
	Asset Management	Maintain financial plans to meet the management requirements of CAP assets	Review CAP assets and identify opportunities for income generation, increased utilization, disposal and/or reduction of liability.
P R O J E C T  R E L I A B I L I T Y		Maintain a safe, healthy and secure working environment	Develop accountability system for activities and responsibilities to be applied to all levels of the organization within the VPP. Hold employees accountable for meeting all safety requirements.
			Reduce/eliminate work place injuries from an organizational and cultural perspective, in addition to metrics. Emphasize all aspects of safety (emotional, cognitive and physical).
	CAP Workforce	Establish CAP as a regional employer of choice	Develop career ladders to allow the growth and development of CAP employees and to protect the organization from loss of expertise as the workforce retires.
		Maintain high levels of skills and professional proficiencies	Develop a professional development program for administrative professionals similar to the apprenticeship program.
			Maintain an effective Apprenticeship program that keeps pace with technology and balances available work hours, use of apprentices and skilled external hires. Include program evaluation by participants.
Optimize staffing, recruitment and succession planning	Replace employees retiring with qualified personnel that have the experience commensurate with the uniqueness of the CAP organization and operation.		

# STRATEGIC PLAN - TACTICAL ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
<p style="text-align: center;">P R O J E C T  R E L I A B I L I T Y</p>	<p style="text-align: center;"><b>Asset Management, Operation and Maintenance</b></p>	<p>Provide reliable and cost-effective water deliveries</p>	<p>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. Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages.</p>
		<p>Improve Maintenance Excellence Processes</p>	<p>Ensure the integrity of the canal system through analysis and mitigation of subsidence and surface drainage issues.</p> <p>Review internal processes to ensure they adequately address equipment and procurement lead times.</p> <p>Maintain a feedback loop for changes in preventive maintenance procedures (work order process). Ensure the preventive maintenance work order process evaluates each facility and ensures performance of appropriate preventive and predictive procedures.</p> <p>Increase standardization of equipment, methods and documentation internally and with outside parties, that takes into account differences between sites.</p> <p>Provide timely processes across the organization to enable cost-effective equipment replacement and repair (e.g., engineering, purchasing, input from water quality, operations, etc.)</p> <p>Re-evaluate materials handling processes including kitting and stock levels in order to identify potential gaps.</p>
		<p>Enhance effective project management</p>	<p>Hold partnering session with CAP staff, consultants and/or contractors at the beginning of each internal and external project and develop partnering agreement that sets ground rules, defines communication, etc., to enhance teamwork and reduce costs.</p> <p>Maintain rigorous oversight of outside contractors' work products and robust program to ensure adherence to CAP policies and procedures.</p>
		<p>Improve technology management</p>	<p>Proactively manage use of social media and other developing communication tools with respect to access, use content, records management, security of information, legality and general oversight.</p> <p>Improve effectiveness and functionality of INFOR EAM for planning of maintenance activities.</p>

# STRATEGIC PLAN - TACTICAL ITEMS

Key Result Area	Strategic Issue	Strategic Objective	Action Plans
WATER SUPPLY	Supply Reliability	Identify and manage risks posed by shortage, drought and climate change	Position CAP as a leader on climate change adaptation by working with organizations such as Water Utility Climate Alliance (WUCA) and other water utilities at the forefront of managing climate change impacts.
		Prepare for recovery of water stored by the AWBA	Complete recovery plan in a timely fashion in cooperation with stakeholders to improve connection between AWBA storage and CAP recovery. Partner with the AWBA and others to develop recovery strategies that take into account areas of groundwater overdraft.
POWER	Generation Resources	Maintain existing generation resources until appropriate alternatives are available	Support renewal of agreements necessary to maintain continued operation of NGS.
		Plan for new, reliable, sustainable, cost-effective generation resources	Investigate feasibility of distributed generation.
REPLENISHMENT	Water Supply	Acquire and maintain an appropriate mix of long-term and short-term water supplies to meet future obligations	Re-evaluate water supply acquisition program in Plan of Operation (e.g., timing, types of supply and projected costs).
			Continue to work with State Land Department on the transfer of 2,906 AF of its M&I subcontract water to CAGRDR.
			Continue to collaborate with stakeholders to evaluate conservation measures that could reduce CAGRDR's replenishment obligation.

# PERFORMANCE MEASURES

## “BIG 5”

### ORGANIZATION-WIDE GOALS

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

However, as the Strategic Plan itself began to be used to track and manage strategic initiatives under the governance of the Strategic Plan Oversight Committee (SPOC), and detailed performance measures were being effectively managed at the department/unit level, CAP senior management sought to identify a short list of unifying essential metrics, fundamental to the achievement of CAP's mission, for which the entire organization shares responsibility and can take ownership for their accomplishment.

The result of this work was the "Big 5 Organization-Wide Goals." Each of the five goals represents a different portion of the KRA's. As much as possible, objectives have been chosen that can endure from year to year. In addition, for the first time, CAP was able to introduce 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 and discussed in person by the General Manager (GM) at employee communications events dubbed "Beyond the Buzz."

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.

For 2014, all five of the "Big 5" goals were met. Some lessons were learned and the 2015 goals were modified slightly to reflect refined targets due to prior performance.



The 2015 edition of the “Big 5” Organization-Wide Goals is shown below, and the midyear 2015 “Big 5” progress report is shown on the following pages.

DELIVER	CONTROL	MAINTAIN	INCREASE	PROMOTE
<p><b>CAP'S WATER TO SATISFY CAP CUSTOMER ORDERS WHILE MANAGING THE COLORADO RIVER TO PROTECT LONG-TERM RELIABILITY OF CAP'S WATER</b></p>	<p><b>COSTS AND PROMOTE RATE STABILITY.</b></p>	<p><b>AND IMPROVE CAP INFRASTRUCTURE THROUGH RELIABILITY-CENTERED MAINTENANCE.</b></p>	<p><b>SAFETY AWARENESS, MANAGE SAFETY PERFORMANCE AND PROMOTE SAFE, RESPONSIBLE BEHAVIOR.</b></p>	<p><b>TEAMWORK, COLLABORATION AND COMMUNICATION AMONG EMPLOYEES TO CREATE A SENSE OF COMMUNITY AND ENHANCE THE MISSION OF CAP</b></p>
<p>This quantity will be measured by diversions from the Colorado River in acre-feet.</p> <p><b>For 2015 our Customer Delivery target is 1,497,000 acre-feet, with a Protection Volume target of 162,000 acre-feet.</b></p>	<p>In order to achieve this goal, both operating and capital expenditures must be no more than <b>2% OVER</b> or less than <b>5% UNDER</b> the Board-approved budget.</p>	<p>Achieving this goal will require a Forced Outages (FOX) ratio of <b>2.0% or less</b> and Total Maintenance Overtime hours at <b>no more than 8.0%</b> of straight time hours.</p>	<p>To achieve this goal, CAP's annual performance will have to be at or below the average of the prior three years for the following metrics:</p> <ul style="list-style-type: none"> <li>• <b>LOST TIME (DART RATIO)</b> – CURRENT AVERAGE: <b>0.9</b></li> <li>• <b>PREVENTABLE VEHICLE &amp; EQUIPMENT ACCIDENTS (PVA)</b> – CURRENT AVERAGE: <b>8</b></li> </ul>	<p>CAP's goal is to achieve <b>90% participation</b> (3 or more activities per participant) in the health, safety, wellness, ECO and diversity activities during CAP Safety Week.</p> <p>In addition, this goal will promote environmental stewardship and sustainability through <b>90% compliance</b> in the CAP Recycling Program.</p>



# 2015 DIVERSIONS

## DELIVER

CAP'S WATER TO SATISFY CAP CUSTOMER ORDERS WHILE MANAGING THE COLORADO RIVER TO PROTECT LONG-TERM RELIABILITY OF CAP'S WATER

This quantity will be measured by diversions from the Colorado River in acre-feet.

For 2015 our Customer Delivery target is 1,497,000 acre-feet, with a Protection Volume target of 162,000 acre-feet.

## Monthly



MONTH	ACTUAL	PLANNED	VAR %
Jan	58,728	71,459	82.2%
Feb	77,475	81,731	94.8%
Mar	134,316	131,196	102.4%
Apr	183,305	168,251	108.9%
May	146,795	196,908	74.6%
Jun	166,051	188,308	88.2%
Jul		184,258	
Aug		155,894	
Sep		112,431	
Oct		92,016	
Nov		54,482	
Dec		60,066	
<b>Total</b>	<b>766,670</b>	<b>1,497,000</b>	



## Q2 Cumulative

ACTUAL	766,670
PLANNED	837,853
VAR %	91.5%

(see graph below)

## Protection Volume

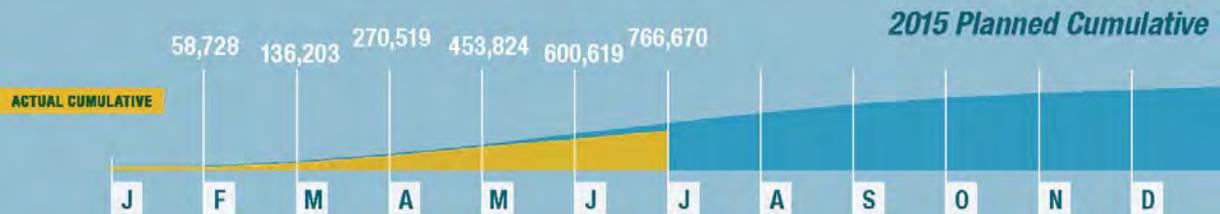
QTR	ACTUAL	PLANNED	VAR %
1st	-	11,000	100%
2nd	69,000	52,000	33%
3rd		74,000	
4th		25,000	
<b>Total</b>	<b>69,000</b>	<b>162,000</b>	

## Q2 Protection Volume Cumulative

ACTUAL	69,000
PLANNED	63,000

VAR %

10%





# 2015 COST CONTROL

## CONTROL

**COSTS AND PROMOTE RATE STABILITY.**

In order to achieve this goal, both operating and capital expenditures must be no more than **2% OVER** or less than **5% UNDER** the Board-approved budget.

## Quarterly



QTR	ACTUAL	BUDGET	VAR %
1st	\$34,509	\$40,665	15%
2nd	\$35,388	\$40,299	12%
3rd		\$41,339	
4th		\$40,579	
<b>Total</b>	<b>\$69,897</b>	<b>\$162,882</b>	

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



## Q2 Cumulative

ACTUAL	\$69,897
BUDGET	\$80,964
VAR %	14%

*(see graph below)*





# 2015 INFRASTRUCTURE

## MAINTAIN

AND IMPROVE CAP INFRASTRUCTURE THROUGH RELIABILITY-CENTERED MAINTENANCE.

Achieving this goal will require a Forced Outages (FOX) ratio of **2.0% or less** and Total Maintenance Overtime hours at **no more than 8.0%** of straight time hours.

### Maintenance Overtime Hours

#### Quarterly



QTR	ACTUAL	PLANNED	VAR
1st	4.3%	5.0%	0.7%
2nd	4.2%	7.0%	2.8%
3rd		9.0%	
4th		11.0%	

**Q2 Cumulative**

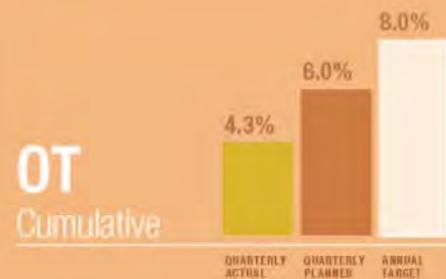
ACTUAL 4.3%

PLANNED 6.0%

VAR 1.7%

**1.7%**

BELOW PLANNED CUMULATIVE



### Forced Outages (FOX) Ratio

#### Quarterly



QTR	ACTUAL	PLANNED	VAR
1st	0.9%	2.0%	1.1%
2nd	0.7%	2.0%	1.3%
3rd		2.0%	
4th		2.0%	

**Q2 Cumulative**

ACTUAL 0.8%

PLANNED 2.0%

VAR 1.2%

**1.2%**

BETTER THAN PLANNED CUMULATIVE





# 2015 SAFETY PERFORMANCE

## INCREASE

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

To achieve this goal, CAP's annual performance will have to be at or below the average of the prior three years for the following metrics:

- **LOST TIME (DART RATIO)**  
– CURRENT AVERAGE: **0.9**
- **PREVENTABLE VEHICLE & EQUIPMENT ACCIDENTS (PVA)**  
– CURRENT AVERAGE: **8.0**

### Lost Time & Restricted Days (DART Ratio)

#### Quarterly

– Current Average Ratio is 0.9%

QTR	ACTUAL	3-YR AVG	VAR
1st	0.9	0.9	0%
2nd	0.0	0.9	100%
3rd		0.9	
4th		0.9	

#### Q2 Cumulative

ACTUAL	0.5	VAR
3-YR AVG	0.9	44%

(see graph above)



### Preventable Vehicle & Equipment Accidents (PVA)

#### Quarterly

– Current Average Annual Total is 11

QTR	ACTUAL	3-YR AVG	VAR
1st	1.0	2.0	50%
2nd	3.0	2.0	-50%
3rd		2.0	
4th		2.0	

#### Q2 Cumulative

ACTUAL	4.0	VAR
3-YR AVG	4.0	0%

(see graph above)





# 2015 COMPANY CULTURE

## PROMOTE

**TEAMWORK, COLLABORATION AND COMMUNICATION AMONG EMPLOYEES TO CREATE A SENSE OF COMMUNITY AND ENHANCE THE MISSION OF CAP**

CAP's goal is to achieve **90% participation** (3 or more activities per participant) in the health, safety, wellness, ECO and diversity activities during CAP Safety Week.

In addition, this goal will promote environmental stewardship and sustainability through **90% compliance** in the CAP Recycling Program.

### Percentage of Participation

ACTIVE EMPLOYEES:

**471**

TOTAL EMPLOYEES PARTICIPATING IN TWO OR MORE ACTIVITIES:

**432**



= QUARTER 2 =

**92%**

EMPLOYEE PARTICIPATION



### Recycling Compliance

Percentages by Quarter per Inspections



#### Quarterly

QTR	ACTUAL	PLANNED
1st	93%	90%
2nd	90%	90%
3rd		90%
4th		90%
<b>Total</b>	<b>92%</b>	<b>90%</b>



# FINANCIAL PLANNING PROCESS

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

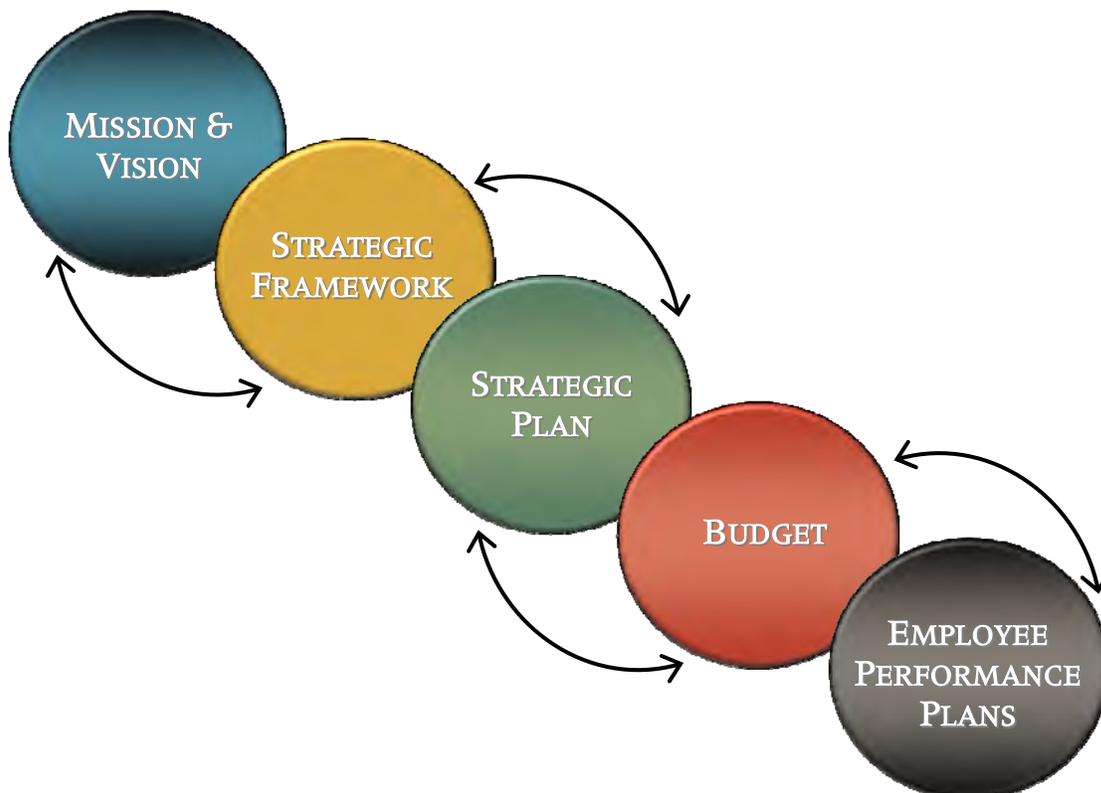
## PROCESS, PROCEDURES AND CONTROLS

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

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

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

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



## BIENNIAL FINANCIAL PLANNING PROCESS

CAP utilizes a Biennial Financial Planning Process that includes the strategic plan, the budget and business plan, long-range financial plan (LRFP), rate-setting and reserve planning. Budget and business planning occur in odd years for the subsequent two years and are more tactical in nature. In even years, the focus is on more strategic activities, such as long-range financial planning, rates, and reserves. The biennial process provides the ability for staff to focus on budget one year and the next year to focus on the more strategic areas requiring more in-depth analysis of issues affecting CAP. As the focus shifts back and forth between shorter-term and longer-term planning horizons, the work done in each year of the biennium complements and enhances the work in the alternate year, and each year in the process serves as the basis for the work in the following year to allow staff to work more efficiently and effectively. Quarterly reviews provide the means to measure performance against the established goals (see page 4-7 for more information). The financial planning process is illustrated on the following diagram:



The 2016 / 2017 biennial budget covers two one-year periods. As the first year (2016) draws to a close, the second year (2017) of the budget will be reviewed to determine if the budget should be amended to incorporate any significant impacts. Please see Biennial Budget Amendment Process on page 4-6 for further information.

## BUDGET BASIS & FORMAT

Both the financial statements and the budget are reported on a calendar year using the accrual basis of accounting for all funds and on a combined basis. The basis of budgeting and basis of accounting are discussed in more detail on page 8-28.

All financial statements contained in the budget are presented on a comparative basis, including two years of actual activity (2013 and 2014), 2015 financial projected activity and two years of budget activity (2016 and 2017). The Statement of Net Position summarizes current and long-term obligations (liabilities) and assets available to meet those obligations, as well as deferred inflows and deferred outflows, if any. The Statements of Revenues, Expenses and Changes in Net Position (income statement) summarize operating and non-operating expenses, and the revenues available to cover those expenses resulting in the change in net position.

## BIENNIAL BUDGET PROCESS AND CALENDAR

The 2016 / 2017 budget process began in March 2015 with the distribution of the current status Strategic Plan and the associated action plans to managers and supervisors in order to provide the basis for development of their budgets and business plans.

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

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

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

CAP reviews and, as necessary, updates its Replacement Planning Model (RPM) as a part of the LRFP activity that occurs in even years. The RPM is an econometric model that predicts asset replacement costs based on original asset costs and detailed estimates of replacement and refurbishment periods and cost escalation factors. The output of the RPM is used to validate and refine the project-based capital expenditure forecasts in the LRFP. The original RPM was created in 2001 and was most recently updated in 2015. The LRFP is the starting point for the next budget.

Following approval of the 2016 / 2017 budget, staff will begin work on the next LRFP, incorporating any new strategies, objectives and trends identified during the budget process. Staff will evaluate longer-term issues and determine the impact on CAP operations and finances, including reserves and rates. This work then becomes the launching point for the subsequent budget.

# FINANCIAL PLANNING CALENDAR

<b>2016 / 2017 BUDGET CYCLE</b>	<b>REQUESTED BUDGET</b>	April-May 2015	Departments Develop and Submit Strategic Plans
		June-August 2015	Cost Centers Develop Budget and Submit to Finance for Review & Consolidation
		August 17-September 15, 2015	General Manager Review & Changes CAWCD Board Officers Review
	<b>STAFF PROPOSED BUDGET</b>	September 24, 2015	Consolidate & Mail Budget
		October 8, 2015	Customer Workshop to Review Budget
	<b>COMMITTEE RECOMMENDED BUDGET</b>	October 15, 2015	Finance, Audit & Power Committee Meeting Review Budget & Make Recommendation to Board
	<b>BOARD APPROVED BUDGET</b>	November 5, 2015	Board of Directors Review & Approval of Budget
<b>LONG-RANGE PLANNING CYCLE</b>	<b>LONG-RANGE FINANCIAL PLAN (LRFP) RATE-SETTING RESERVE PLANNING</b>	December 2015	Identify Strategic Issues
		January-March 2016	Analyze Strategic Issues, Develop LRFP, Reserve Plan & Preliminary 2017 / 2018 Rate Schedule
		April 14, 2016	Customer Workshop to Review Preliminary 2017 / 2018 Rates
		April 21, 2016	Finance, Audit & Power Committee Review of Preliminary 2017 / 2018 Rates & Reserve Strategy
		May 5, 2016	Board of Directors Adopt Preliminary 2017 / 2018 Rates & Reserve Strategy
		June 2, 2016	Board of Directors Approve Final 2017 / 2018 Rates & Reserve Strategy
<b>2017 BUDGET AMENDMENT</b>	August 2016	Finance Develops 2017 Budget Review and Amendment (as necessary)	
	October 2016	Finance, Audit & Power Committee Review 2017 Budget Amendment and Recommend update (as necessary)	
	November 2016	Board of Directors Review & Approval of 2017 Budget Amendment	
	November 2016	Distribution of 2017 Budget Amendment	

## BUDGET GUIDELINES

Organization-wide assumptions are shown in the Biennial Budget Overview on page 2-1. The following budget guidelines and assumptions were communicated to cost centers to develop the 2016 / 2017 budget:

- Human resources (staffing)
  - New positions required to address strategic issues identified in the CAP Strategic Plan will be included in the budget after review and approval by the General Manager (GM).
  - The staffing model will be used to evaluate alternatives when replacing and requesting new positions.
  - Human resource requirements needed to support CAP's succession planning program will be identified.
- Budgets will be developed using the CAP Strategic Plan and associated action plans.
- Budgets will 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 will be included in the budget.
- Supporting detail must be provided for training, outside services, and capital equipment.

## BUDGETARY CONTROLS

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

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

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

*Capital Budget* – Execute the budget and approve budget variances for total capital spending up

to 102% of the annual budget. Board approval is required for any contracts over \$250,000. During the budget period, the following controls are in place to manage the budget:

- Cost center managers and supervisors are required to prepare 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 Senior Management Team (SMT) 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 staff to increase the GM's 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 SMT 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 (e.g., budget year 2017), 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.

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

# OTHER PLANNING PROCESSES

## FINANCIAL PLANNING & MANAGEMENT FRAMEWORK

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



### LONG-RANGE FINANCIAL PLAN

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

The LRFP is updated every two years in even years, incorporating the latest information available from the recently completed budget, annual financial results, RPM and economic indices. Major assumptions that are reviewed and revised include water availability and delivery volumes, electricity requirements and pricing, staffing and capital programs. The LRFP update process is designed to intersect the rate-setting process.

## RATE-SETTING PROCESS

Similar to the biennial budget process, CAP has implemented a biennial rate-setting process. A preliminary biennial water rate schedule and analysis is prepared and presented that identifies firm rates for one year (e.g., 2015), provisional rates for the next year (e.g., 2016) and advisory rates for the subsequent four years (e.g., 2017-2020). CAP communicates preliminary firm, provisional and advisory rates through customer workshops, public board meetings and written briefs. The preliminary rates are adopted or revised to be final rates at the June Board meeting. In the second year of the biennial rate-setting process, the provisional rates become firm unless the Board elects to update them. Like the budget update process, the rate update process is only used if needed. The provisional 2016 rates were reviewed but not revised in 2015.

<b>RATE-SETTING GOALS</b>	<b>COST RECOVERY</b>	Water rates are set to recover costs on a long-term basis, net of other revenue sources
	<b>ENCOURAGE USE</b>	Water rates are set to facilitate the use of CAP water by those who need and are entitled to CAP water, and to further the policy of the State of Arizona to encourage use of renewable water supplies
	<b>FINANCIAL STABILITY</b>	Water rates are set to maintain a strong financial position and long-term balanced cash flows
	<b>PRICE STABILITY &amp; PREDICTABILITY</b>	Water rates are set to maintain relatively stable and predictable rates
	<b>OPERATIONAL EFFICIENCY</b>	CAP commits to a goal of operating its facilities at the lowest possible cost consistent with maintaining a highly reliable service capability
	<b>ACCOUNTABILITY</b>	Water delivery policies and rates should be established in a highly public process only after due consideration and analysis of economic and financial impacts
	<b>MAXIMIZE ECONOMIC BENEFIT</b>	CAP seeks to maximize the economic benefit from the use of water it supplies by making excess water available for delivery to direct uses and storage activities within its service area
	<b>LEGAL COMPLIANCE</b>	Any rate-making processes and policies must be accomplished in accordance with statutory and contractual requirements

## WATER DELIVERY RATES

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

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

Some of CAP's water delivery rates, specifically those applicable to long-term subcontract, federal and interstate water banking customers, are reconciled annually. These contracts constitute approximate 2/3 of the current deliveries. This reconciliation process is described on page 4-10 as part of the annual OM&R reconciliation discussion.

CAP includes a "Big R" component for capital replacement and capital improvement projects in the 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 OM&R and to distinguish it from the capital charge explained below. The firm rate for 2016 is set at \$24 an acre-foot and the advisory rate for 2017 is \$24 an acre-foot.

Starting in 2012, CAP began including a rate stabilization component in the OM&R rate. This rate will allow the accumulation of approximately \$30 million in a rate stabilization reserve by the end of 2018. As indicated above, OM&R rates are calculated based on delivery volume and in the event of a shortage, rates would increase significantly. This amount would allow the rate impacts of a shortage to be phased in over a period of time (e.g., three years) rather than all at once. The rate stabilization fund can also serve as a method to reconcile rates annually.

The objective of the rate-setting process is to estimate rates that will be as close as possible to actual costs. The LRFPP helps accomplish this objective. Since water delivery rates are set in advance, fluctuations in actual water deliveries may result in ongoing OM&R reconciliation adjustments to CAP's subcontract and federal customers.

## CAPITAL CHARGES

Long-term municipal and industrial (M&I) subcontractors are assessed a capital charge on their allocations as specified by their subcontracts. Excess water customers including non-subcontract customers, CAGR and the Arizona Water Bank Authority (AWBA) are assessed a "facility use fee" which is equivalent to a capital charge on a delivered per acre-foot basis. The capital charge and facility use rate is set to assist in repaying CAP's share of the reimbursable costs for construction of CAP. This is combined with other revenue sources, as described in Repayment Obligation on page 4-14, to make up the annual amount due to the federal government.

# EVALUATION

## AUTHORIZATION PROCESS

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

For example, the contracts and purchasing policy, which establishes management approval authorization limits and competitive bidding processes, currently provides that all items over \$250,000 require Board approval. The PSC was established to be responsible for evaluating, recommending and approving specific capital and extraordinary maintenance projects within the Board-approved capital budget.

## 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 SMT and Board. In addition to evaluating year-to-date operating and capital budget performance, a full-year forecast is developed for revenues, expenses, capital budget expenditures, statement of net position and General Fund strategic reserves. This review enables management to identify potential weaknesses or activities that may have an adverse impact on CAP and determine an appropriate course of action.

## ANNUAL OM&R RECONCILIATION

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

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

To mitigate the financial impact to customers for these reconciled OM&R costs, CAP has established a rate stabilization fund that was originally funded through the sale of sulfur dioxide (SO<sub>2</sub>) credits generated by the Navajo Generating Station (NGS). The reconciled amount can be reconciled through the rate stabilization fund to reduce variability on customers. As this account is nearing depletion, a new rate stabilization fund has been created and is discussed in Fixed OM&R Rate Component on pages 2-7 and 2-8 that may be used to reconcile the annual OM&R costs.

## RESERVE PLANNING

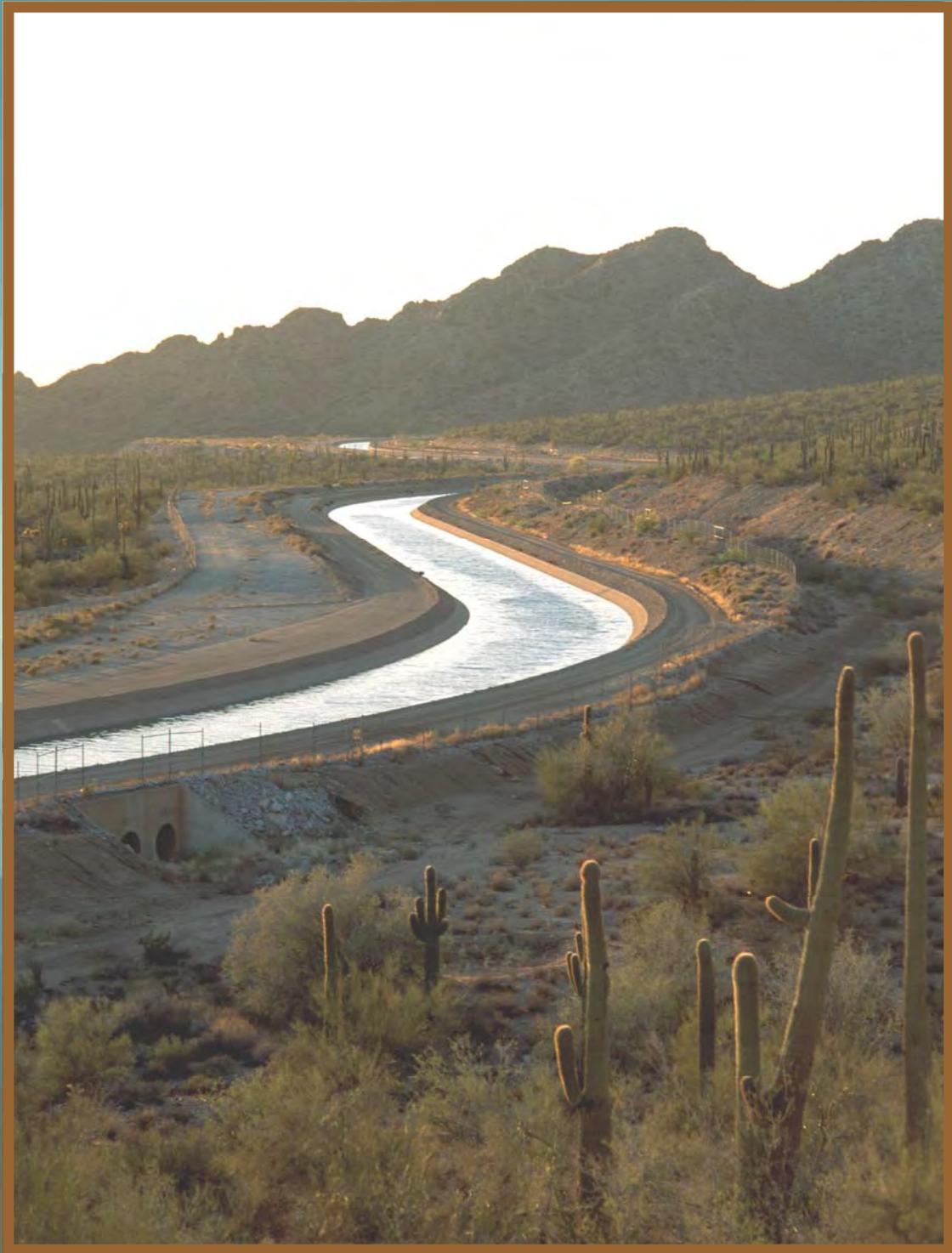
As part of the two-year financial planning cycle, one of the activities for even years is a review of the Strategic Reserve Strategy and targets.

Strategic Reserves are cash reserves for unusual or unplanned events, such as equipment failures, business interruption or unplanned costs. These reserves may be drawn upon if unusual or unplanned events occur, or they may never be used at all. The Working Capital reserve is an exception to this rule, as it is a self-replenishing reserve used to smooth out timing differences in revenues and spending within each year. Known or planned expenditures or events are included in the budget and funded on a "pay as you go" basis through water rates and taxes. Other reserves have been established for specific purposes, such as the water storage reserve or rate stabilization (SO<sub>2</sub> credit) reserve, and are not included in the Strategic Reserve planning. See Fund Reserves beginning on page 4-15 for a more detailed description.

The Board reviewed and updated the Reserve Strategy in April 2014.



Lake Mead



CAP Canal near Picacho Peak

# DEBT AUTHORITIES & OBLIGATIONS

## BONDING AUTHORITY

Provisions of Arizona Revised Statutes (ARS) authorize CAP, its legal name being Central Arizona Water Conservation District, 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 the costs of water rights acquisitions for replenishment purposes, such bonds are only repayable from revenues generated or collected from members of the CAGR. D.
- 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 is anticipating issuing \$30 million in bonds in December 2015 to finance its share of the Palo Verde to Morgan Transmission Line (APS), Hassayampa Tap Connection and Transmission Line Rebuild ED2 to Saguaro projects. A portion of the Fixed OM&R rate is pledged toward repayment of these bonds.
- CAWCD does not have any other outstanding bonds under this statute.

## 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 2015.

## 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 2015.

## REPAYMENT OBLIGATION

As specified in the CAWCD's enabling act (ARS § 48-3701 et seq.), in 1972, CAWCD entered into a Master Repayment Contract with the U.S. Department of the Interior, Bureau of Reclamation, 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 notified on September 30, 1996, that the second stage (regulatory storage facilities) was substantially complete.

Based on the terms of the Master Repayment Contract and the subsequent repayment settlement stipulation, CAWCD is obligated to repay \$1.646 billion to the federal government. The balance of the obligation is projected to be \$1.141 billion at the end of 2016 and \$1.109 billion at the end of 2017.

Revenues available to the CAWCD to make the annual repayment obligation (debt service) come from funds held by the federal government in the Basin Development Fund (BDF) and reserves. Funds available in the BDF include power revenues received from the sale of surplus power from the NGS, the surcharge on energy sold in Arizona from the Hoover Power Plant and the Parker-Davis Project, and other revenues. Other revenues include net NGS O&M revenues and expenses, the sale of SO<sub>2</sub> credits and land surplus for project needs and other miscellaneous revenues. If funds in the BDF are not sufficient to make the annual repayment obligation, the District will make up the difference from General Fund reserves that were collected through capital charges, property taxes and interest earnings.

## NON-INDIAN AGRICULTURAL 9(D) DEBT

During 2007, and as the result of the Arizona Water Settlement Act, long-term entitlements to CAP non-Indian Agricultural (NIA) water were relinquished by CAP NIA subcontractors. These rights are currently recorded as an asset of CAWCD. In exchange for the relinquishment, CAP incurred the 9(d) debt liability from the water rights. Those rights will be reallocated to M&I users, which the first reallocation is anticipated to occur in 2016. Upon reallocation, the District will collect charges from those M&I users an amount sufficient to repay the District's costs in facilitating the relinquishment of the 9(d) debt.

# 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 was 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.

*CAGR D 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.

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

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

### COMMITTED RESERVES

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

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

*Water Storage Reserves* – This fund was established in 2003 for the purpose of funding water delivery expenses incurred for underground storage. Monies deposited into this fund are collected from an ad valorem tax assessed at the rate of \$0.04 per \$100 of assessed valuation from Maricopa, Pinal, and Pima counties. Prior to the 2003 / 2004 tax year, monies collected were deposited into the Arizona Water Banking Fund held by the State of Arizona for the benefit of the AWBA.

*Rate Stabilization/Sulfur Dioxide (SO<sub>2</sub>) Credit Reserves* – Established in 2005, the SO<sub>2</sub> Credit Reserve is used to stabilize the total OM&R rate. This fund was supplemented by a new rate stabilization fund in 2012 that is funded from rates, not SO<sub>2</sub> credits. The SO<sub>2</sub> Credit Reserve Fund will be used prior to use of the new fund. The Rate Stabilization Reserve was created to provide funds to mitigate rate shock due to potential Colorado River shortages and allow them to be “softened” or phased out over a longer period of time.

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

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

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

*9(d) Debt Reserve* – This reserve is comprised of funds from revenues associated with the allocation of NIA water and provides the basis for a sinking fund, which will be for 9(d) debt service starting in 2026.

## ASSIGNED RESERVES

The Board established several funds to provide reserves for potential future needs. These reserves are described below:

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

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

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

## UNASSIGNED RESERVES

Monies held by this fund are considered General Funds of CAP and are available for use as such. This is also referred to as a Working Capital Fund.

## STRATEGIC RESERVES

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

In April 2014, the Board revised its strategic reserve targets to \$221 million from a previous target of \$205 to \$210 million. Strategic reserves are projected to be below target temporarily for 2016 and 2017 (see page 2-30 for additional information).

### *General Fund Reserves Targets (Millions)*

#### Restricted Reserves:

Repayment Reserve	<b>\$ 40.0</b>
Emergency OM&R Reserve (\$4.0 million plus accrued interest)	<b>\$ 6.0</b>

#### Assigned Reserves:

Capital Reserve	<b>\$ 70.0</b>
Operating Reserve	<b>\$ 60.0</b>
Contingency Reserve	<b>\$ 10.0</b>

#### Unassigned Reserves:

Working Capital Reserve	<b>\$ 35.0</b>
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<b>TOTAL</b>	<b>\$221.0</b>
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# FUND RESERVES

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

Supplemental Water Reserve	Extraordinary Cost Reserve
CAGRD Replenishment Reserves	Water Storage Reserve
CAGRD I&WR Reserves	Rate Stabilization / SO <sub>2</sub> Reserves
Captive Insurance Reserves	Navajo Decommissioning Reserve
	CAGRD Reserves
	9(d) Debt Reserves

= Strategic Reserves  
 = Other Reserves

UNASSIGNED RESERVES	ASSIGNED RESERVES	RESTRICTED RESERVES	COMMITTED RESERVES
Funds at the State Treasurer and Bank of America which are for daily operating purposes.	The Board established these reserves to provide for potential future needs.	These funds are established through contracts or legislation that limit the use for specific purposes.	These funds are established through Board action typically by resolution that identifies reserves to be used for specific purposes. <u>None of these reserves are part of strategic reserves.</u>

# COMBINED FINANCIAL STATEMENTS

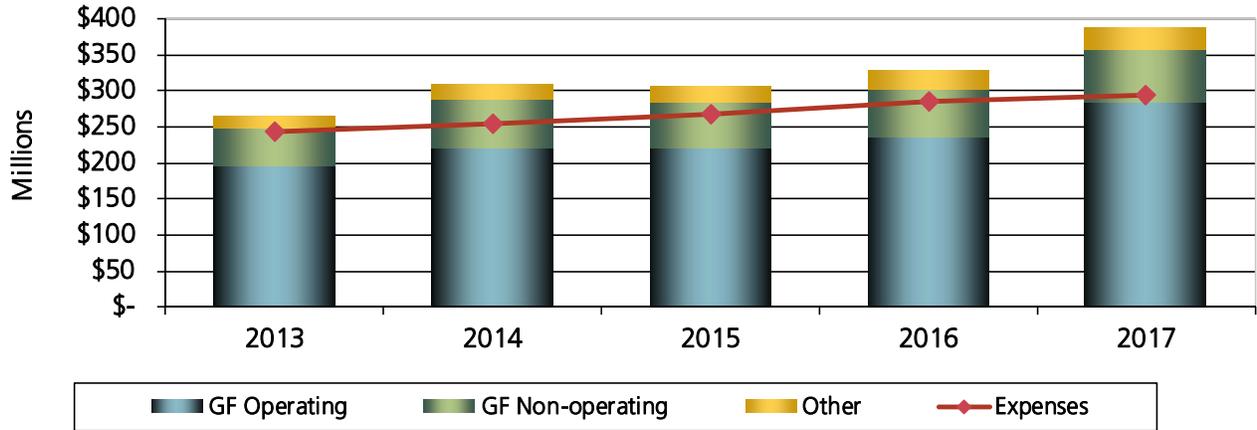
Central Arizona Water Conservation District (CAWCD or District) accounts for its financial activities in conformance with Generally Accepted Accounting Principles (GAAP) as applicable to a government “enterprise fund.” Activity is accounted for using the accrual method and incorporates the requirements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

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

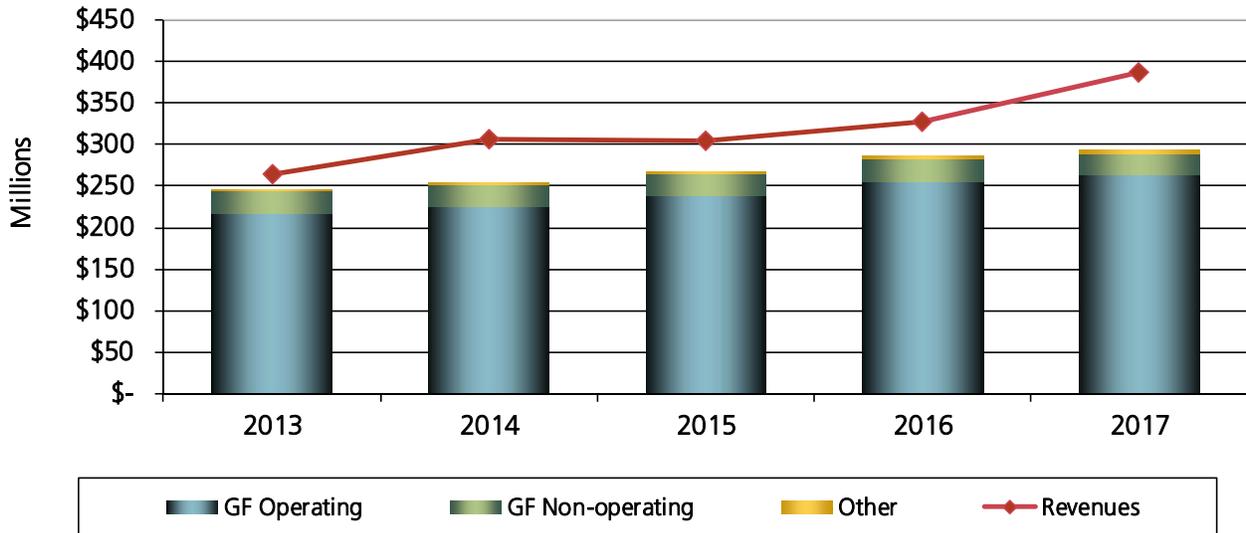
FUND	DESCRIPTION
General Fund	Represents CAWCD’s core business, the delivery of Colorado River water to central Arizona through the Central Arizona Project (CAP) and repayment of reimbursable construction costs and is, by an order of magnitude, the largest fund within the District.
Central Arizona Groundwater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

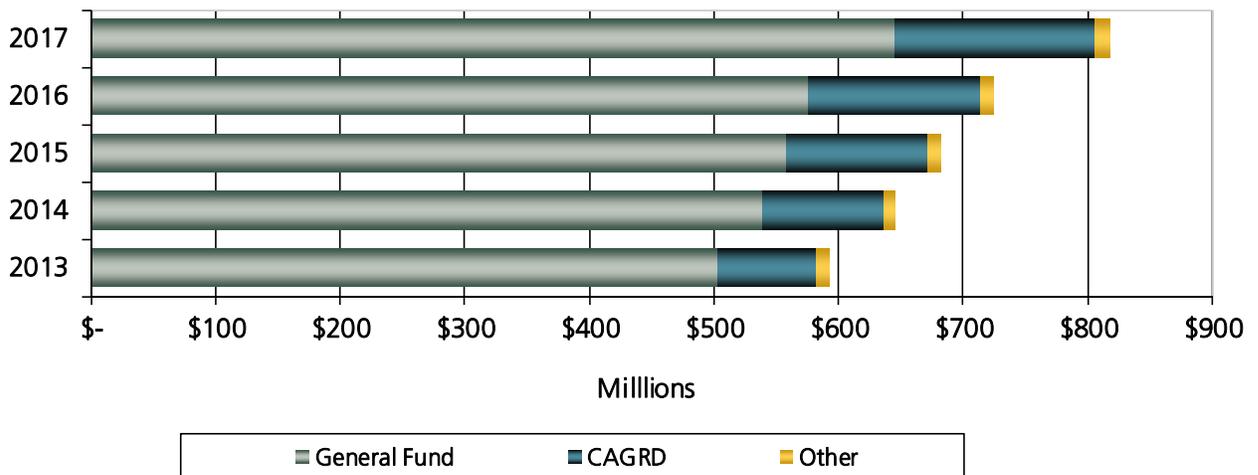
Revenues Compared to Expenses



Expenses Compared to Revenues



Net Position



STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION

ALL FUNDS

(Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Operating Revenues</b>					
Water operations & maintenance charges	\$ 148,300	\$ 167,036	\$ 176,067	\$ 188,940	\$ 202,737
Water service capital charges	10,689	14,566	15,174	16,244	48,975
Power and Basin Development Fund revenues	28,555	29,665	19,887	21,430	24,027
Reimbursements and other operating revenues	24,170	27,518	30,643	33,770	36,802
<b>Total Operating Revenues</b>	<b>211,714</b>	<b>238,785</b>	<b>241,771</b>	<b>260,384</b>	<b>312,541</b>
<b>Operating Expenses</b>					
Salaries and related costs	(56,147)	(57,183)	(56,349)	(57,805)	(60,763)
Pumping Power and Capacity Charges	(90,790)	(94,895)	(107,992)	(112,379)	(116,807)
Transmission	(6,289)	(6,262)	(6,532)	(8,889)	(8,001)
Amortization of permanent service right	(23,018)	(23,018)	(23,018)	(23,018)	(23,018)
Depreciation	(17,288)	(19,491)	(20,831)	(23,363)	(24,948)
Other operating expenses					
Outside services	(16,297)	(18,609)	(19,461)	(21,954)	(20,739)
Materials and supplies	(6,703)	(7,048)	(7,143)	(7,788)	(7,163)
Water for recharge	1,148	1,564	453	(1,430)	(2,601)
Other expenses	(1,597)	(2,474)	(1,051)	(3,109)	(4,292)
Subtotal	(23,449)	(26,567)	(27,202)	(34,281)	(34,795)
<b>Total Operating Expenses</b>	<b>(216,981)</b>	<b>(227,416)</b>	<b>(241,924)</b>	<b>(259,735)</b>	<b>(268,332)</b>
<b>Operating Income/(Loss)</b>	<b>(5,267)</b>	<b>11,369</b>	<b>(153)</b>	<b>649</b>	<b>44,209</b>
<b>Non-operating Revenues/(Expenses)</b>					
Property taxes	52,438	60,994	56,776	60,190	67,603
Interest income & other non-operating revenues	22	6,727	5,874	6,682	6,494
Interest expense & other non-operating expenses	(27,261)	(26,407)	(25,385)	(25,865)	(25,089)
<b>Non-operating Income/(Loss)</b>	<b>25,199</b>	<b>41,314</b>	<b>37,265</b>	<b>41,007</b>	<b>49,008</b>
<b>Change in Net Position</b>	<b>19,932</b>	<b>52,683</b>	<b>37,112</b>	<b>41,656</b>	<b>93,217</b>
Net Position at beginning of year	573,050	592,982	645,665	682,777	724,433
Net Position at end of year	\$ 592,982	\$ 645,665	\$ 682,777	\$ 724,433	\$ 817,650

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

(Thousands)

	2016 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
<b>Operating Revenues</b>						
Water operations & maintenance charges	\$ 188,940	\$ (5,572)	\$ 194,512	\$ -	\$ -	\$ -
Water service capital charges	16,244	(373)	16,617	-	-	-
Power & basin development fund revenues	21,430	-	21,430	-	-	-
Reimbursements & other revenues	33,770	(9,605)	1,417	-	33,419	8,539
<b>Total Revenues</b>	<b>260,384</b>	<b>(15,550)</b>	<b>233,976</b>	<b>-</b>	<b>33,419</b>	<b>8,539</b>
<b>Operating Expenses</b>						
Salaries and related costs	(57,805)	390	(57,216)	-	(979)	-
Pumping power and Capacity charges	(112,379)	-	(112,379)	-	-	-
Transmission	(8,889)	-	(8,889)	-	-	-
Amortization of permanent service right	(23,018)	-	(23,018)	-	-	-
Depreciation	(23,363)	-	(23,363)	-	-	-
Other operating expenses	-	-	-	-	-	-
Outside services	(21,954)	-	(20,463)	-	(1,328)	(163)
Materials and supplies	(7,788)	-	(7,788)	-	-	-
Overhead	5,554	-	6,631	-	(1,077)	-
Water for recharge	(1,430)	6,183	-	-	(7,613)	-
Other expenses	(8,663)	8,977	(9,367)	-	(33)	(8,240)
Subtotal	(34,281)	15,160	(30,987)	-	(10,051)	(8,403)
<b>Total Operating Expenses</b>	<b>(259,735)</b>	<b>15,550</b>	<b>(255,852)</b>	<b>-</b>	<b>(11,030)</b>	<b>(8,403)</b>
<b>Operating Income/(Loss)</b>	<b>649</b>	<b>-</b>	<b>(21,876)</b>	<b>-</b>	<b>22,389</b>	<b>136</b>
<b>Non-operating Revenues/(Expenses)</b>						
Property taxes	60,190	-	60,190	-	-	-
Interest income & other non-operating revenues	6,682	-	6,392	146	137	7
Interest expense & other non-operating expenses	(25,865)	-	(25,865)	-	-	-
<b>Non-operating Income/(Loss)</b>	<b>41,007</b>	<b>-</b>	<b>40,717</b>	<b>146</b>	<b>137</b>	<b>7</b>
<b>Change in Net Position</b>	<b>41,656</b>	<b>-</b>	<b>18,841</b>	<b>146</b>	<b>22,526</b>	<b>143</b>
Net Position at beginning of year	682,777	(2,350)	557,707	8,169	114,716	4,535
<b>Net Position at end of year</b>	<b>\$ 724,433</b>	<b>\$ (2,350)</b>	<b>\$ 576,548</b>	<b>\$ 8,315</b>	<b>\$ 137,242</b>	<b>\$ 4,678</b>

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

(Thousands)

	2017 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
<b>Operating Revenues</b>						
Water operations & maintenance charges	\$ 202,737	\$(5,417)	\$ 208,154	\$ -	\$ -	\$ -
Water service capital charges	48,975	(201)	49,176	-	-	-
Power & basin development fund revenues	24,027	-	24,027	-	-	-
Reimbursements & other revenues	36,802	(9,770)	1,439	-	36,309	8,824
<b>Total Revenues</b>	<b>312,541</b>	<b>(15,388)</b>	<b>282,796</b>	<b>-</b>	<b>36,309</b>	<b>8,824</b>
<b>Operating Expenses</b>						
Salaries and related costs	(60,763)	390	(60,144)	-	(1,009)	-
Pumping power and Capacity charges	(116,807)	-	(116,807)	-	-	-
Transmission	(8,001)	-	(8,001)	-	-	-
Amortization of permanent service right	(23,018)	-	(23,018)	-	-	-
Depreciation	(24,948)	-	(24,948)	-	-	-
Other operating expenses	-	-	-	-	-	-
Outside services	(20,739)	-	(19,596)	-	(980)	(163)
Materials and supplies	(7,163)	-	(7,163)	-	-	-
Overhead	4,371	-	5,481	-	(1,110)	-
Water for recharge	(2,601)	5,711	-	-	(8,312)	-
Other expenses	(8,663)	9,287	(9,345)	-	(33)	(8,572)
Subtotal	(34,795)	14,998	(30,623)	-	(10,435)	(8,735)
<b>Total Operating Expenses</b>	<b>(268,332)</b>	<b>15,388</b>	<b>(263,541)</b>	<b>-</b>	<b>(11,444)</b>	<b>(8,735)</b>
<b>Operating Income/(Loss)</b>	<b>44,209</b>	<b>-</b>	<b>19,255</b>	<b>-</b>	<b>24,865</b>	<b>89</b>
<b>Non-operating Revenues/(Expenses)</b>						
Property taxes	67,603	-	67,603	-	-	-
Interest income & other non-operating revenues	6,494	-	6,149	165	173	7
Interest expense & other non-operating expenses	(25,089)	-	(24,646)	-	(443)	-
<b>Non-operating Income/(Loss)</b>	<b>49,008</b>	<b>-</b>	<b>49,106</b>	<b>165</b>	<b>(270)</b>	<b>7</b>
<b>Change in Net Position</b>	<b>93,217</b>	<b>-</b>	<b>68,361</b>	<b>165</b>	<b>24,595</b>	<b>96</b>
Net Position at beginning of year	724,433	(2,350)	576,548	8,315	137,242	4,678
<b>Net Position at end of year</b>	<b>\$ 817,650</b>	<b>\$(2,350)</b>	<b>\$ 644,909</b>	<b>\$ 8,480</b>	<b>\$ 161,837</b>	<b>\$ 4,774</b>

## STATEMENTS OF NET POSITION - COMBINED

(Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>ASSETS</b>					
<b>Current Assets</b>					
Cash and cash equivalents	\$ 101,233	\$ 119,008	112,146	\$ 132,097	\$ 148,440
Receivables	22,009	19,371	29,466	30,569	89,994
Water inventory	53,087	61,384	78,071	80,984	92,195
Other	6,625	12,097	10,974	12,718	11,860
<b>Total Current Assets</b>	<b>182,954</b>	<b>211,860</b>	<b>230,657</b>	<b>256,368</b>	<b>342,489</b>
<b>Non-current Assets</b>					
Funds held by the federal government	37,491	37,987	24,015	22,220	24,867
Investments	194,608	216,543	246,225	238,563	261,192
Restricted assets	115,988	113,022	123,364	127,503	128,379
Capital assets					
Operating assets, less acc depr	199,488	218,661	249,276	271,843	294,199
Permanent service right, less acc amort	1,204,374	1,181,356	1,158,338	1,135,320	1,112,302
Agriculture water allocation	88,719	88,719	88,719	88,719	45,759
<b>Total Non-current Assets</b>	<b>1,840,668</b>	<b>1,856,288</b>	<b>1,889,937</b>	<b>1,884,168</b>	<b>1,866,698</b>
<b>Total Assets</b>	<b>\$ 2,023,622</b>	<b>\$ 2,068,148</b>	<b>2,120,594</b>	<b>\$ 2,140,536</b>	<b>\$ 2,209,187</b>
<b>LIABILITIES</b>					
<b>Current Liabilities</b>					
Accounts payable	\$ 14,179	\$ 26,779	29,076	\$ 25,725	\$ 28,345
Accrued payroll, payroll taxes & other accrued exp.	8,331	8,344	8,801	7,156	7,373
Unearned revenue	34,707	37,369	38,624	40,004	41,900
Accrued interest payable	27,260	26,407	25,386	25,038	24,221
Repayment obligation, due within one year	26,343	31,362	31,361	31,361	32,929
Contract revenue bonds, due within one year	-	-	1,140	1,393	1,415
<b>Total Current Liabilities</b>	<b>110,820</b>	<b>130,261</b>	<b>134,388</b>	<b>130,677</b>	<b>136,183</b>
<b>Non-current Liabilities</b>					
Repayment obligation, due after one year	1,203,793	1,172,431	1,141,071	1,109,710	1,076,781
Contract revenue bonds, due after one year	-	-	32,083	41,373	39,926
Non-Indian agriculture 9(d) debt	88,719	88,719	88,719	88,719	88,719
Other non-current liabilities	15,493	16,645	18,248	19,452	20,720
<b>Total Non-current Liabilities</b>	<b>1,308,005</b>	<b>1,277,795</b>	<b>1,280,121</b>	<b>1,259,254</b>	<b>1,226,146</b>
<b>Total Liabilities</b>	<b>1,418,825</b>	<b>1,408,056</b>	<b>1,414,509</b>	<b>1,389,931</b>	<b>1,362,329</b>
<b>DEFERRED INFLOWS</b>					
Customer deposits	11,815	14,427	23,308	26,172	29,208
<b>Total Deferred Inflows</b>	<b>11,815</b>	<b>14,427</b>	<b>23,308</b>	<b>26,172</b>	<b>29,208</b>
<b>NET POSITION</b>					
Net investment in capital assets.	173,726	196,225	205,182	236,558	268,314
Restricted	88,728	86,615	97,978	103,139	105,036
Unrestricted	330,528	362,825	379,617	384,736	444,300
<b>Total Net Position</b>	<b>592,982</b>	<b>645,665</b>	<b>682,777</b>	<b>724,433</b>	<b>817,650</b>
<b>Total Liabilities, Def Inflows &amp; Net Position</b>	<b>\$ 2,023,622</b>	<b>\$ 2,068,148</b>	<b>2,120,594</b>	<b>\$ 2,140,536</b>	<b>\$ 2,209,187</b>

# COMBINING SCHEDULE OF NET POSITION - BY FUND & ACCOUNT

(Thousands)

	2016 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
<b>ASSETS</b>						
<b>Current Assets</b>						
Cash and cash equivalents	\$ 132,097	\$ -	\$ 84,225	\$ -	\$ 42,554	\$ 5,318
Receivables	30,569	(130)	19,987	-	10,712	-
Water inventory	80,984	-	28,475	-	52,509	-
Other	12,718	-	12,674	-	-	44
<b>Total Current Assets</b>	<b>256,368</b>	<b>(130)</b>	<b>145,361</b>	<b>-</b>	<b>105,775</b>	<b>5,362</b>
<b>Non-current Assets</b>						
Funds held by the federal government	22,220	-	22,220	-	-	-
Investments	238,563	(2,350)	240,518	-	-	395
Other assets	127,503	-	78,922	8,315	38,016	2,250
Capital assets						
Operating assets, less acc depr	271,843	-	263,239	-	8,604	-
Permanent service right, less acc amort	1,135,320	-	1,135,320	-	-	-
Agriculture water allocation	88,719	-	88,719	-	-	-
<b>Total Non-current Assets</b>	<b>1,884,168</b>	<b>(2,350)</b>	<b>1,828,938</b>	<b>8,315</b>	<b>46,620</b>	<b>2,645</b>
<b>Total Assets</b>	<b>\$ 2,140,536</b>	<b>(2,480)</b>	<b>1,974,299</b>	<b>8,315</b>	<b>152,395</b>	<b>8,007</b>
<b>LIABILITIES</b>						
<b>Current Liabilities</b>						
Accounts payable	\$ 25,725	\$ (130)	\$ 18,075	\$ -	\$ 4,451	\$ 3,329
Accrued payroll, payroll taxes & other	7,156	-	7,156	-	-	-
Unearned revenue	40,004	-	40,004	-	-	-
Accrued interest payable	25,038	-	25,038	-	-	-
Repayment obligation, due within one yr	31,361	-	31,361	-	-	-
Contract revenue bonds, due within one yr	1,393	-	1,045	-	348	-
<b>Total Current Liabilities</b>	<b>130,677</b>	<b>(130)</b>	<b>122,679</b>	<b>-</b>	<b>4,799</b>	<b>3,329</b>
<b>Non-current Liabilities</b>						
Repayment obligation, due after one year	1,109,710	-	1,109,710	-	-	-
Contact revenue bonds, due after one year	41,373	-	31,019	-	10,354	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Other liabilities	19,452	-	19,452	-	-	-
<b>Total Non-current Liabilities</b>	<b>1,259,254</b>	<b>-</b>	<b>1,248,900</b>	<b>-</b>	<b>10,354</b>	<b>-</b>
<b>Total Liabilities</b>	<b>1,389,931</b>	<b>(130)</b>	<b>1,371,579</b>	<b>-</b>	<b>15,153</b>	<b>3,329</b>
<b>DEFERRED INFLOWS:</b>						
Customer deposits	26,172	-	26,172	-	-	-
<b>Total Deferred Inflows</b>	<b>26,172</b>	<b>-</b>	<b>26,172</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>NET POSITION</b>						
Net Investment in capital assets,	236,558	-	227,954	-	8,604	-
Restricted	103,139	-	54,558	8,315	38,016	2,250
Unrestricted	384,736	(2,350)	294,036	-	90,622	2,428
<b>Total Net Position</b>	<b>724,433</b>	<b>(2,350)</b>	<b>576,548</b>	<b>8,315</b>	<b>137,242</b>	<b>4,678</b>
<b>Total Liabilities, Def Inflows &amp; Net Position</b>	<b>\$ 2,140,536</b>	<b>(2,480)</b>	<b>1,974,299</b>	<b>8,315</b>	<b>152,395</b>	<b>8,007</b>

# COMBINING SCHEDULE OF NET POSITION - BY FUND & ACCOUNT

(Thousands)

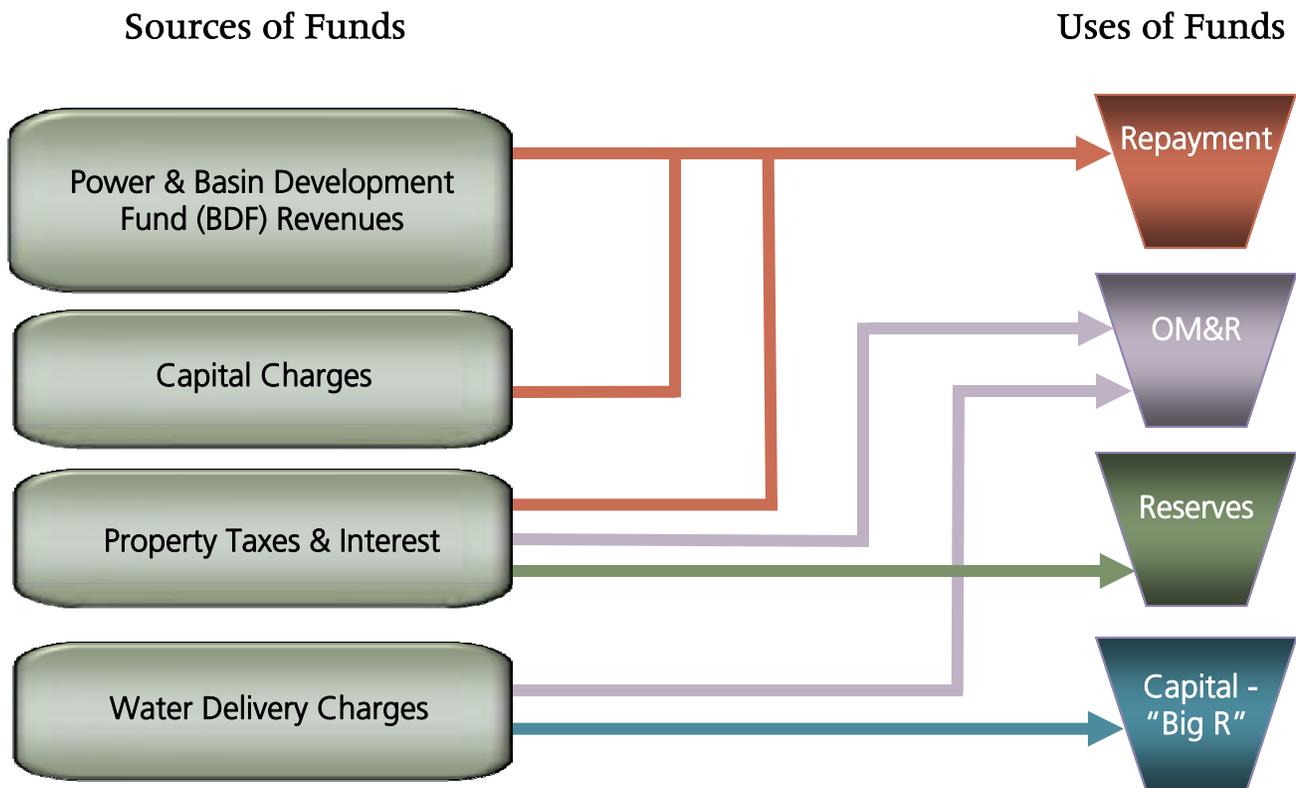
	2017 Budget	Elim	General Fund	Supp Water Account	CAGR Account	Captive Insurance Fund
<b>ASSETS:</b>						
<b>Current Assets:</b>						
Cash and cash equivalents	\$ 148,440	\$ -	\$ 94,923	\$ -	\$ 48,171	\$ 5,346
Receivables	89,994	(130)	78,489	-	11,635	-
Water inventory	92,195	-	26,757	-	65,438	-
Other	11,860	-	11,816	-	-	44
<b>Total Current Assets</b>	<b>342,489</b>	<b>(130)</b>	<b>211,985</b>	<b>-</b>	<b>125,244</b>	<b>5,390</b>
<b>Non-current Assets:</b>						
Funds held by the federal government	24,867	-	24,867	-	-	-
Investments	261,192	(2,350)	263,147	-	-	395
Other assets	128,379	-	71,586	8,480	46,063	2,250
Capital assets						
Operating assets, less acc depr	294,199	-	285,340	-	8,859	-
Permanent service right, less acc amort	1,112,302	-	1,112,302	-	-	-
Agriculture water allocation	45,759	-	45,759	-	-	-
<b>Total Non-current Assets</b>	<b>1,866,698</b>	<b>(2,350)</b>	<b>1,803,001</b>	<b>8,480</b>	<b>54,922</b>	<b>2,645</b>
<b>Total Assets</b>	<b>\$ 2,209,187</b>	<b>(2,480)</b>	<b>2,014,986</b>	<b>8,480</b>	<b>180,166</b>	<b>8,035</b>
<b>LIABILITIES:</b>						
<b>Current Liabilities:</b>						
Accounts payable	\$ 28,345	\$ (130)	\$ 17,456	\$ -	\$ 7,758	\$ 3,261
Accrued payroll, payroll taxes & other	7,373	-	7,373	-	-	-
Unearned revenue	41,900	-	41,900	-	-	-
Accrued interest payable	24,221	-	24,005	-	216	-
Repayment obligation, due within one yr	32,929	-	32,929	-	-	-
Contract revenue bonds, due within one yr	1,415	-	1,075	-	340	-
<b>Total Current Liabilities</b>	<b>136,183</b>	<b>(130)</b>	<b>124,738</b>	<b>-</b>	<b>8,314</b>	<b>3,261</b>
<b>Non-current Liabilities:</b>						
Repayment obligation, due after one year	1,076,781	-	1,076,781	-	-	-
Contact revenue bonds, due after one year	39,926	-	29,911	-	10,015	-
Non-Indian agriculture 9(d) debt	88,719	-	88,719	-	-	-
Other liabilities	20,720	-	20,720	-	-	-
<b>Total Non-current Liabilities</b>	<b>1,226,146</b>	<b>-</b>	<b>1,216,131</b>	<b>-</b>	<b>10,015</b>	<b>-</b>
<b>Total Liabilities</b>	<b>1,362,329</b>	<b>(130)</b>	<b>1,340,869</b>	<b>-</b>	<b>18,329</b>	<b>3,261</b>
<b>DEFERRED INFLOWS:</b>						
Customer deposits	29,208	-	29,208	-	-	-
<b>Total Deferred Inflows</b>	<b>29,208</b>	<b>-</b>	<b>29,208</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>NET POSITION:</b>						
Net Investment in capital assets,	268,314	-	259,455	-	8,859	-
Restricted	105,036	-	48,243	8,480	46,063	2,250
Unrestricted	444,300	(2,350)	337,211	-	106,915	2,524
<b>Total Net Position</b>	<b>817,650</b>	<b>(2,350)</b>	<b>644,909</b>	<b>8,480</b>	<b>161,837</b>	<b>4,774</b>
<b>Total Liabilities, Def Inflows &amp; Net Position</b>	<b>\$ 2,209,187</b>	<b>(2,480)</b>	<b>2,014,986</b>	<b>8,480</b>	<b>180,166</b>	<b>8,035</b>

# GENERAL FUND

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

The District has several sources of revenue used to fund expenses for certain activities. As shown on the following diagram, Power and Basin Development Fund (BDF) revenues and capital charges, along with property taxes and interest income, provide the funds to meet the District’s annual federal debt service. Water delivery charges, reimbursements, other revenues and, to the extent needed, property taxes and interest income, pay for costs associated with delivering water (Fixed Operations, Maintenance and Replacement (OM&R) and pumping power), recharge O&M and capital expenditures.

## GENERAL FUND SOURCES AND USES OF FUNDS



*Excludes recharge O&M and excludes miscellaneous revenues/expenses*

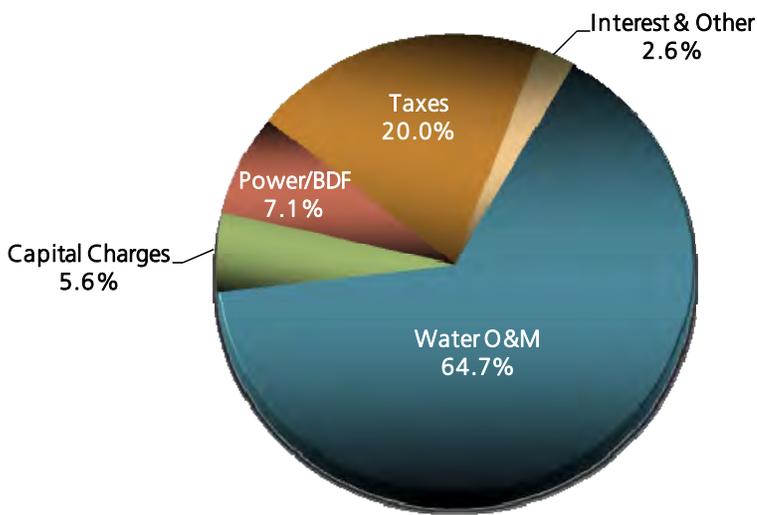
# REVENUES

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

Water O&M charges are the General Fund's most significant revenue source, accounting for total revenue of 64.7% for 2016 and 58.4% for 2017. Property taxes (which includes both the general ad valorem tax and the water storage tax) represent the second largest category, followed by BDF revenues, capital charges, interest income and other revenue.

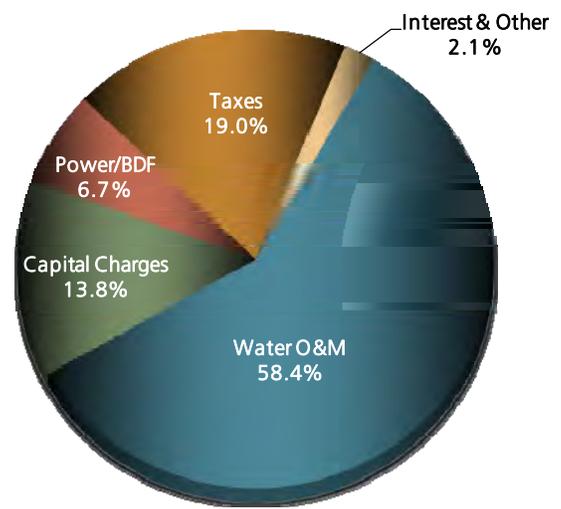
**General Fund -2016 Revenues**

(\$300.6 Million)



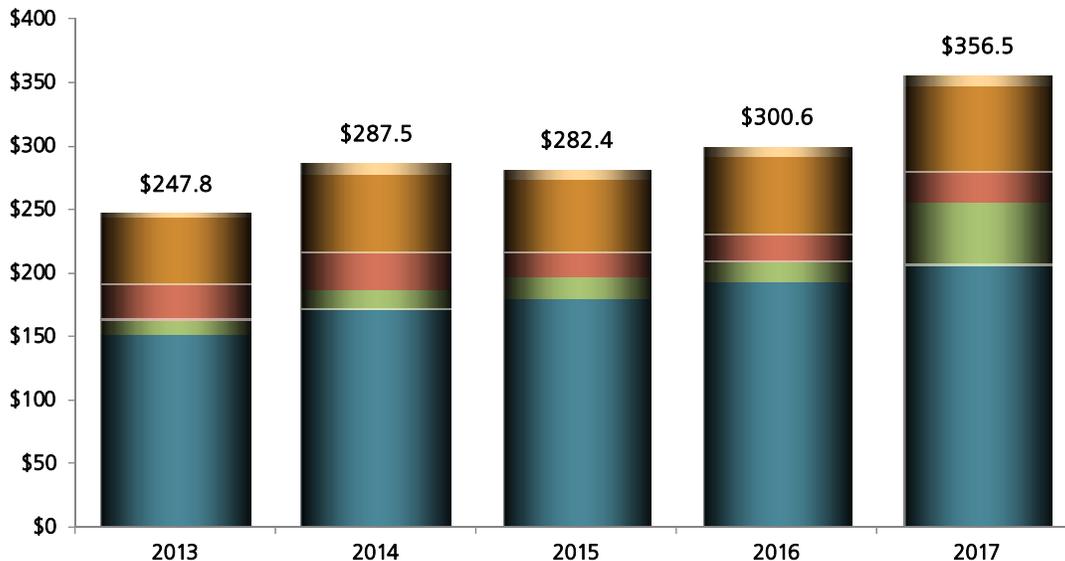
**General Fund -2017 Revenues**

(\$356.5 Million)



**General Fund Revenues**

Millions



- Water operations & maintenance charges
- Power & Basin Development Fund revenues
- Interest Other
- Water service capital charges
- Property Taxes

## EXPLANATION OF CHANGES

Total General Fund revenues are projected to increase \$18.2 million for 2016 and \$55.9 million in 2017 compared to the budget. The following discussion further explains the changes in the 2016 / 2017 revenue budget.

<i>(Millions)</i>	2015 Projection	2016 Budget	2017 Budget	16 vs 15 incr/(decr)	17 vs 16 incr/(decr)
Water O&M charges	\$ 182.2	\$ 194.5	\$ 208.2	\$ 12.3	\$ 13.7
Capital charges	16.1	16.6	49.2	0.5	32.6
Power & BDF revenues	19.9	21.4	24.0	1.5	2.6
Property taxes	56.8	60.2	67.6	3.4	7.4
Interest income	5.6	6.4	6.1	0.8	(0.3)
Other revenue	1.8	1.5	1.4	(0.3)	(0.1)
<b>Total</b>	<b>\$ 282.4</b>	<b>\$ 300.6</b>	<b>\$ 356.5</b>	<b>\$ 18.2</b>	<b>\$ 55.9</b>

### *Water O&M Charges*

As discussed in the Water Delivery Volumes and Water Delivery Charges on pages 2-4 through 2-9, water O&M revenue is directly linked to the amount of water that is delivered and the rates that are charged (see page 8-3). It is anticipated that both 2016 and 2017 will be normal delivery years with water deliveries (with credits) of 1.52 million acre-feet and 1.54 million acre-feet, respectively. Water deliveries for 2015 are projected to be 1.49 million acre-feet. CAGR purchases long term storage credits that CAWCD holds and are included in the calculation of rates.

Water O&M revenue is also impacted by the amount of water storage tax that the Arizona Water Banking Authority (AWBA) uses to pay for its water (revenue is recorded upon receipt of the water storage tax and consequently is not recorded if the tax is used to pay for water deliveries). AWBA will use \$5.1 million in 2016 and \$8.9 million in 2017 for water purchases as compared to \$3.9 million in 2015.

### *Capital Charges*

The capital charge revenue is based on \$23 per acre-foot for 2016 and \$24 per acre-foot in 2017 as compared to \$22 per acre-foot in 2015.

It is anticipated that 46,629 acre-feet of non-Indian Agriculture (NIA) water will be allocated by the end of 2017. Part of this reallocation includes back capital charges which is approximately \$31.1 million. While the revenue will be recorded upon reallocation, it is expected most customers will choose the five-year payment plan that will be available.

## Power & BDF Revenues

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

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

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

For 2016 and 2017, BDF revenues are expected to be increased slightly from 2015. BDF revenue is shown on the following table:

<i>(Millions)</i>	2015	2016	2017	16 vs 15	17 vs 16
	Projection	Budget	Budget	incr/(decr)	incr/(decr)
Power sales:					
SRP consideration fee	\$ 26.9	\$ 27.8	\$ 28.6	\$ 0.9	\$ 0.8
Net surplus power/ net NGS operations	(14.1)	(15.5)	(13.1)	(1.4)	2.4
Hoover 4.5 mil revenue	3.0	3.0	3.0	-	-
Parker-Davis 4.5 mil revenue	2.7	2.7	2.7	-	-
Net CAP transmission revenues	(1.1)	-	0.8	1.1	0.8
Land related revenue	1.0	1.9	0.4	0.9	(1.5)
Misc NGS Revenues	1.5	1.5	1.6	-	0.1
Total	<u>\$ 19.9</u>	<u>\$ 21.4</u>	<u>\$ 24.0</u>	<u>\$ 1.5</u>	<u>\$ 2.6</u>

## Property Taxes

CAWCD is authorized to assess two property taxes in Maricopa, Pinal and Pima Counties—a general ad valorem tax and a water storage tax. Beginning in 2015, CAP's property taxes are based on property's Primary (Limited) Assessed Value (LPV). In June 2015, the Board set the general ad valorem tax rate at \$0.10 per \$100 of LPV for the tax year 2015 / 2016 and the water storage tax at \$0.04 per \$100 of LPV. The Board also directed that \$.04 of the general ad valorem tax to be held in a separate account including accrued interest for extraordinary cost expenditures due to the uncertainty in the power market, NGS concerns and the impacts of Proposition 117. The rates and direction has been maintained in the 2016 / 2017 budget.

Proposition 117 limits the annual growth in the Primary Limited Property Values (LPV) of all locally assessed property to 5%. In addition, while the Secondary Full Cash Value (FCV) will continue to be established by the assessor departments, all property is now taxed based on the LPV. The result of this change is that increases in property values will potentially have a much lower impact on property tax revenue year-over-year.

The Board establishes the tax rates each June for the following tax year and may change the rates as it deems appropriate. The general ad valorem tax, while available for most District needs, has in recent years been used primarily to pay for the agricultural Fixed OM&R costs and agricultural incentive program.

In exchange for agricultural customers giving up water rights, there was an agreement to put in place the agricultural settlement pool and payment for the associated Fixed OM&R costs. This pool is currently 400,000 acre-feet. It decreases to 300,000 in 2017, to 225,000 in 2024 and to 0 in 2031. The agricultural incentive program was designed to assist agricultural customers with energy costs and is evaluated as part of each rate cycle.

The water storage tax is planned in the budget to be held at \$0.04 and be retained by CAWCD for repayment or operating costs, with the exception of \$6.1 million being transferred to the AWBA in 2015, \$4.0 million in 2016 and \$0.2 million in 2017, based on the AWBA's Plan of Operation.

*(Millions)*

Calendar Year	General Ad Valorem Tax	Water Storage Ad Valorem Tax	Total Revenue	Year-over-Year Increase
2013	\$34.1	\$18.3	\$52.4	\$3.4
2014	41.8	19.2	61.0	8.6
2015	44.9	11.9	56.8	(4.2)
2016	45.8	14.4	60.2	3.4
2017	48.5	19.1	67.6	7.4

### *Interest Income*

Interest income is projected to be at an average of 2.3% per interest rates for funds invested with the Arizona State Treasurer based on approximately 15% short-term investments (under 1 year) and 85% longer term investments (2-5 years). There was a significant negative fair value adjustment in 2013 that had offset prior years' increases.

Part of the NIA water rights reallocation is the payment of back capital charges (explained on page 5-11) and interest on these charges. It is expected that the District will have \$15.4 million in interest in 2017 related to the NIA reallocation. There will also be interest the next few years as part of the 5-year payment plan.

### *Other Revenue*

Other revenue is usually 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 2016 through 2017.

Part of the NIA payment is related to 9(d) debt service for which the District has assumed a liability from the United States Government. The asset is the Agricultural Water Allocation on the Statement of Net Position and the liability is the NIA 9(d) debt. As the allocations are made, part of the payment is for the 9(d) debt that will be deposited into a separate reserve account. The asset is discounted based on the current value as a result of the payment schedule of the 9(d) debt payments. A corresponding write-down of the asset will be made upon the allocation that amounts to \$17.4 million in 2017.



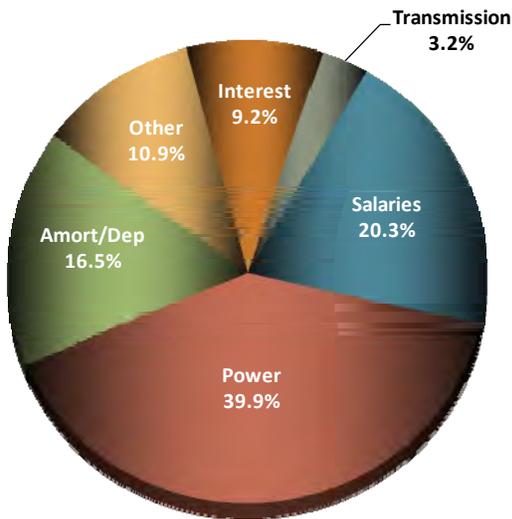
# EXPENSES

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

Pumping power is the District's most significant expense, accounting for 39.9% of the 2016 expenses and 40.5% of the 2017 expenses. Salaries and related costs represent the second largest category, followed by amortization and depreciation, interest expense, transmission costs and other costs.

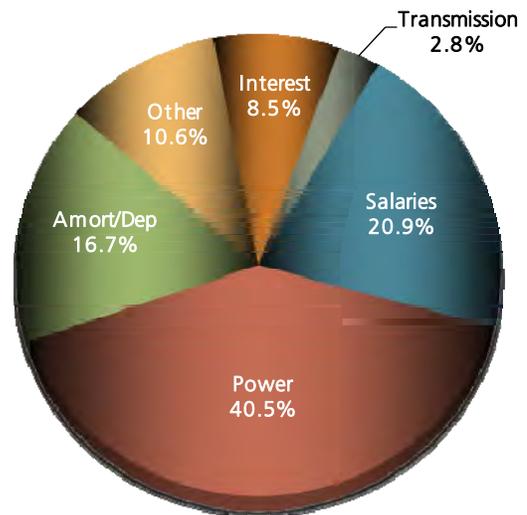
**General Fund - 2016 Expenses**

(\$281.7 Million)



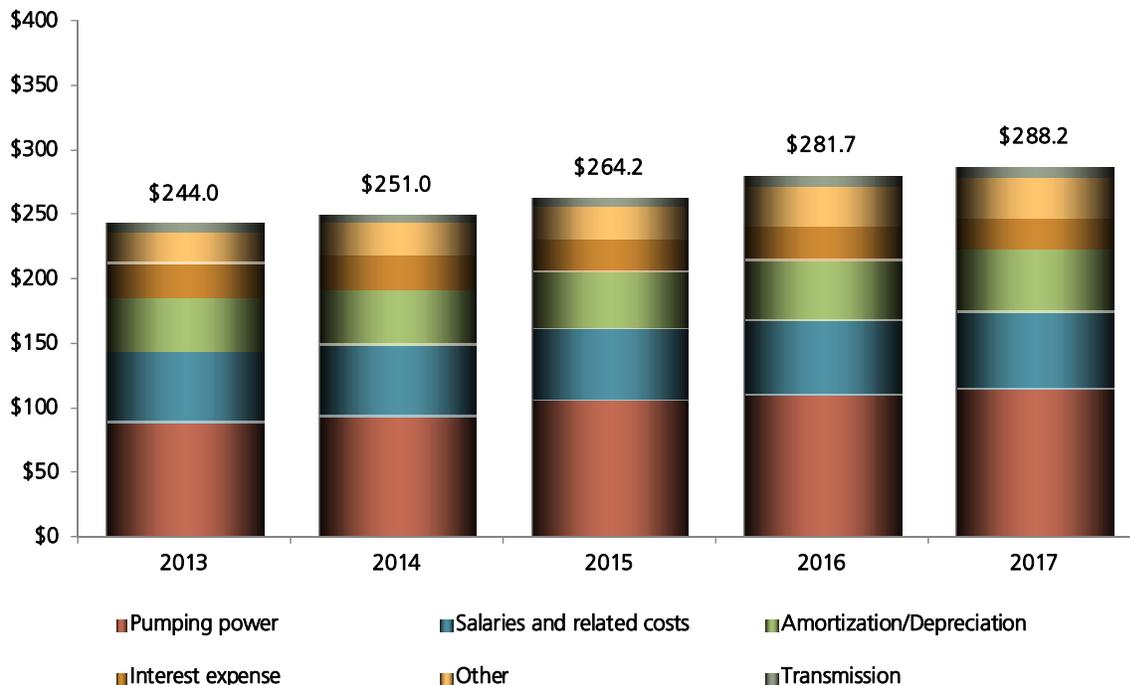
**General Fund - 2017 Expenses**

(\$288.2 Million)



**General Fund Expenses**

(Millions)



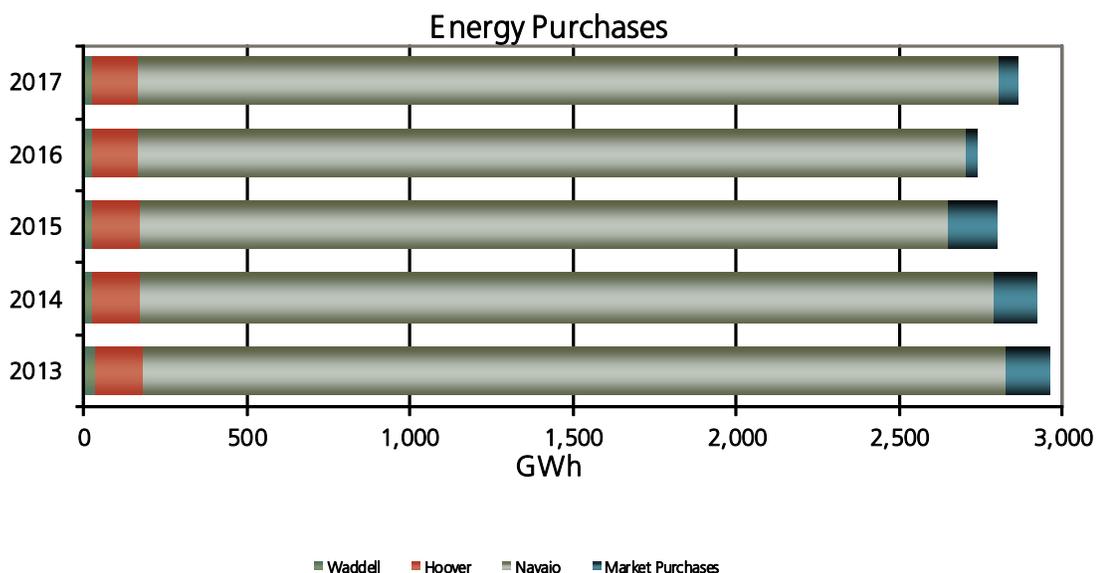
## EXPLANATION OF CHANGES

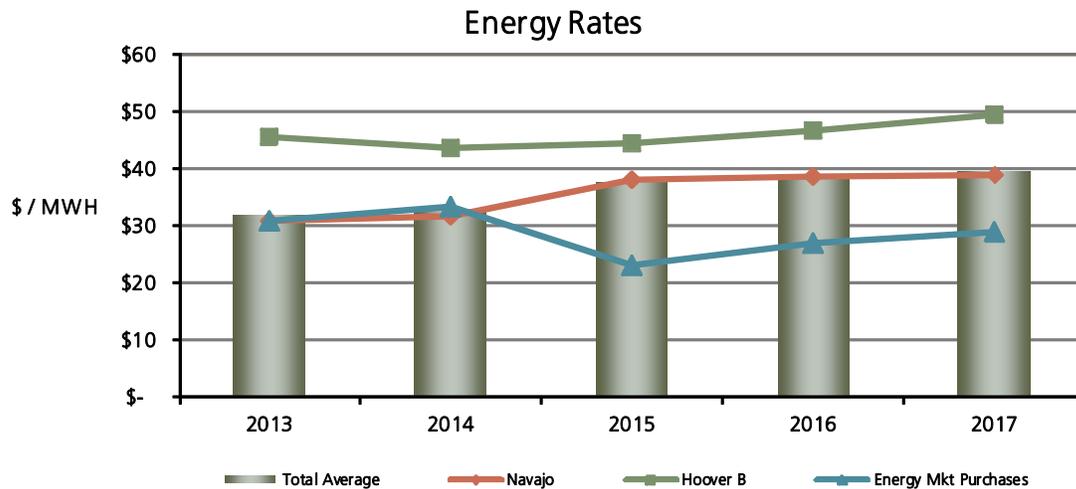
There are three major factors that affect expenses: (1) an aging infrastructure is resulting in higher maintenance costs and increased depreciation due to greater capital spending; (2) power costs are forecasted to increase due to increased operating and capital costs of NGS; and (3) there are significant Colorado River issues that require expenditures in an attempt to mitigate the impact on the District and our customers. The following discussion further explains the 2016 / 2017 expense budget.

(Millions)	2015 Projection	2016 Budget	2017 Budget	15 vs 16 incr/(decr)	16 vs 17 incr/(decr)
Salaries and related costs	\$ 55.4	\$ 57.2	\$ 60.1	\$ 1.8	\$ 2.9
Pumping power & capacity char	108.0	112.4	116.8	4.4	4.4
Transmission	6.5	8.9	8.0	2.4	(0.9)
Amortization/Depreciation	43.8	46.4	48.0	2.6	1.6
Interest expense	25.4	25.9	24.6	0.5	(1.3)
Other Expenses	25.1	30.9	30.7	5.8	(0.2)
Total expenses	\$ 264.2	\$ 281.7	\$ 288.2	\$ 17.5	\$ 6.5

### *Pumping Power*

Five factors influence pumping power costs: (1) the amount of power needed to divert water from the Colorado River; (2) the number of pumping stations through which the water must travel to get to its delivery point; (3) the increase or decrease in water inventory in both Lake Pleasant and water credits; (4) the unit cost of purchased energy; and (5) the energy trading markets. The following graphs show the gigawatt hours (GWh) of energy needed from 2013 to 2017 and the average cost of energy in total and by category. Energy market purchases are costs for buying and selling power for operational needs, when NGS power is not available.





Energy costs increase from 2013 through 2017 as a result of NGS operating costs, mostly related to fuel, inflation adjustments and regulatory requirements. Starting in 2015 the Mercury and Air Toxic Standards (MATS) are increasing operating and capital costs also. Loss on the sale of reserved energy and National Environmental Protection Act (NEPA) costs in anticipation of the future lease extensions also negatively impact the Navajo rate.

Storage in Lake Pleasant is accounted for as water inventory on the statement of net position. If water is released from the lake to meet demands, pumping power costs increase and water inventory decreases. However, if more water is stored in the lake, water inventory will increase on the statement of net position and pumping power costs will decrease. Other energy costs include energy scheduling and balancing services that are required under the power arrangements and Hoover Capacity charges.

<i>Energy Costs (Millions)</i>	2013	2014	2015	2016	2017
Navajo	\$ 81.1	\$ 82.6	\$ 94.0	\$ 97.5	\$ 102.7
Hoover B	6.8	6.4	6.3	6.6	6.9
Energy Market Purchases	4.2	4.4	3.5	0.9	1.7
Energy shaping & displacement	-	0.8	0.2	-	-
Energy scheduling services	1.3	1.3	1.3	1.3	1.3
Energy balancing services	1.8	1.6	2.2	2.3	2.4
MWD agreement expense	0.1	0.1	0.1	0.1	0.1
Lake Pleasant adjustment	(5.1)	(2.3)	0.1	3.2	1.7
Lake Roosevelt adjustment	0.6	-	0.3	0.5	-
<b>Net pumping power costs</b>	<b>\$ 90.8</b>	<b>\$ 94.9</b>	<b>\$ 108.0</b>	<b>\$ 112.4</b>	<b>\$ 116.8</b>

### *Transmission*

The increase in transmission costs in 2016 is due in part to a credit that had been applied in 2013-2015. Additionally, there are increased capital costs that will increase CAP's transmission rates.

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

### *Salaries and Related Costs*

Salaries and related costs are anticipated to increase \$1.8 million in 2016 and \$2.9 million in 2017 for the General Fund. CAP is seeing a significant number of retirements and prior to replacement, each position is reviewed to determine the most effective and efficient manner to fill the needs of that position, whether it be through replacement, consolidation or restructuring. There are no additional full time equivalents (FTEs) being requested during the budget period. Due to the high level of retirements and the hiring process including filling positions internally before hiring from outside the District, there are open positions in 2015 that are planned to be filled. As a result of a recent compensation study, salary adjustments are budgeted at 3% for each year. The amount of labor spent on capital projects will also impact the General Fund expenses. If there are more capital projects with internal labor, the labor is capitalized as part of the project rather than being expensed. Conversely, as in 2017, projects are requiring less internal labor and the labor is expensed.

To reflect our recent history, CAWCD has established a vacancy and salary savings equivalent adjustment of fifteen positions in the 2016 and 2017 budget.

### *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 2013 through 2017 based on the preset amortization schedule.

Depreciation expense is anticipated to increase \$2.5 million in 2016 and another \$1.6 million in 2017, due to increased capital expenditures needed to maintain an aging infrastructure and additions to capital equipment, buildings and structures.

### *Interest Expense*

Interest expense is anticipated to be \$25.4 million in 2015, \$25.9 million in 2016 and \$24.6 in 2017. It is made up of interest related to the District's federal repayment and the anticipated bond issue at the end of 2015. Bond interest is anticipated at \$1.5 million in 2016 and \$1.3 million in 2017.

## Other Expenses

This category includes property and casualty insurance, licenses, fees, permits, accretion expense (for the decommissioning of NGS), Multi-Species Conservation Program (MSCP) fees, Hoover capacity charges, outside services, materials and supplies and other costs (travel, overhead allocation, etc.).

Other expenses are anticipated to increase in 2016 by \$5.8 million and decrease in 2017 by \$0.2 million. Although the mix of items change from year to year, overall the recurring costs for operational expenses remains fairly consistent. In fact, departmental recurring discretionary non-labor expenses have been held flat from the 2015 budget. The increases in 2016 and 2017 are related to the non-recurring items listed below:

- an extraordinary maintenance project for the Steel Discharge and Manifold Recoat that is occurring (see page 5-24 for details of the project);
- Colorado River shortage mitigation program costs;
- an increase in MSCP fees per the previously defined schedule; and
- Board elections which occur in even-numbered years.

<i>(Millions)</i>	2015 Projection	2016 Budget	2017 Budget	16 vs 15	17 vs 16
Revenues	\$ 282.4	\$ 300.6	\$ 356.5	\$ 18.2	\$ 55.9
Expenses	(264.2)	(281.7)	(288.2)	(17.5)	(6.5)
Change in net position	18.2	18.9	68.3	0.7	49.4
Net position at beginning of period	539.5	557.7	576.6	18.2	18.9
Net position at end of period	\$ 557.7	\$ 576.6	\$ 644.9	\$ 18.9	\$ 68.3



STATEMENTS OF REVENUES, EXPENSES & CHANGES IN NET POSITION

GENERAL FUND

(Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Water Deliveries (acre-feet in thousands)</b>	1,533.3	1,535.7	1,488.3	1,519.0	1,535.0
<b>Operating Revenues</b>					
Water operations & maintenance charges	\$ 153,846.7	\$ 173,003.6	\$ 182,200.2	\$ 194,511.8	\$ 208,154.1
Water service capital charges	11,430.8	15,494.8	16,113.7	16,616.6	49,175.6
Power & Basin Development Fund revenues	28,554.6	29,664.9	19,887.0	21,430.0	24,027.0
Reimbursements and other revenues	1,655.7	1,844.3	1,829.6	1,417.7	1,438.6
<b>Total Operating Revenues</b>	<b>195,487.8</b>	<b>220,007.6</b>	<b>220,030.5</b>	<b>233,976.1</b>	<b>282,795.3</b>
<b>Operating Expenses</b>					
Salaries and related costs	(55,231.1)	(56,250.8)	(55,404.6)	(57,215.6)	(60,143.7)
Pumping power & Capacity Charges	(90,789.6)	(94,895.4)	(107,992.0)	(112,378.7)	(116,807.0)
Transmission	(6,289.0)	(6,261.9)	(6,532.3)	(8,889.1)	(8,000.9)
Amortization of permanent service right	(23,017.8)	(23,017.8)	(23,017.8)	(23,017.8)	(23,017.8)
Depreciation	(17,288.0)	(19,491.2)	(20,831.0)	(23,363.2)	(24,948.2)
Other operating expenses					
Outside services	(15,311.5)	(16,407.0)	(16,982.2)	(20,462.7)	(19,595.5)
Materials and supplies	(6,702.7)	(7,047.8)	(7,143.1)	(7,788.0)	(7,162.7)
Overhead	5,634.6	5,764.0	7,125.1	6,631.0	5,481.0
Other expenses	(7,781.0)	(6,974.9)	(8,056.9)	(9,367.4)	(9,344.5)
Subtotal	(24,160.6)	(24,665.7)	(25,057.1)	(30,987.1)	(30,621.7)
<b>Total Operating Expenses</b>	<b>(216,776.1)</b>	<b>(224,582.8)</b>	<b>(238,834.8)</b>	<b>(255,851.5)</b>	<b>(263,539.3)</b>
<b>Operating Income/(Loss)</b>	<b>(21,288.3)</b>	<b>(4,575.2)</b>	<b>(18,804.3)</b>	<b>(21,875.4)</b>	<b>19,256.0</b>
<b>Non-operating Revenues</b>					
Property taxes					
General ad valorem tax	34,120.4	41,751.2	44,880.0	45,835.2	48,489.1
Water storage tax	18,317.2	19,242.7	11,896.3	14,354.3	19,113.9
Subtotal	52,437.6	60,993.9	56,776.3	60,189.6	67,603.0
Interest income and other revenues	(101.5)	6,485.9	5,639.8	6,391.6	6,147.7
<b>Total Non-operating Revenues</b>	<b>52,336.1</b>	<b>67,479.8</b>	<b>62,416.1</b>	<b>66,581.2</b>	<b>73,750.7</b>
<b>Non-operating Expenses</b>					
Interest expense and other expenses	(27,260.4)	(26,406.8)	(25,385.4)	(25,864.7)	(24,645.7)
<b>Total Non-operating Expenses</b>	<b>(27,260.4)</b>	<b>(26,406.8)</b>	<b>(25,385.4)</b>	<b>(25,864.7)</b>	<b>(24,645.7)</b>
<b>Total Non-operating Revenues/(Loss)</b>	<b>25,075.7</b>	<b>41,073.0</b>	<b>37,030.7</b>	<b>40,716.5</b>	<b>49,105.0</b>
<b>Change in Net Position</b>	<b>3,787.4</b>	<b>36,497.8</b>	<b>18,226.4</b>	<b>18,841.1</b>	<b>68,361.0</b>
Net Position at beginning of year	499,195.6	502,983.0	539,480.8	557,707.2	576,548.3
<b>Net Position at end of year</b>	<b>\$ 502,983.0</b>	<b>\$ 539,480.8</b>	<b>\$ 557,707.2</b>	<b>\$ 576,548.3</b>	<b>\$ 644,909.3</b>

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

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Water Deliveries (acre-feet in thousands)</b>	129.4	146.0	94.6	<b>94.8</b>	112.9
<b>Revenues</b>					
Reimbursements and other revenues	1,362.9	1,498.7	1,406.3	<b>1,119.5</b>	<b>1,299.6</b>
<b>Total Revenues</b>	<u>1,362.9</u>	<u>1,498.7</u>	<u>1,406.3</u>	<u><b>1,119.5</b></u>	<u><b>1,299.6</b></u>
<b>Expenses</b>					
Salaries and related costs	(149.2)	(173.9)	(279.3)	<b>(315.5)</b>	<b>(312.2)</b>
Other operating expenses					
Outside services	(960.9)	(521.5)	(190.9)	<b>(446.6)</b>	<b>(466.0)</b>
Materials and supplies	(27.4)	(2.4)	(73.3)	<b>(133.0)</b>	<b>(133.1)</b>
Other expenses	(927.4)	(365.4)	(759.8)	<b>(770.9)</b>	<b>(727.3)</b>
Subtotal	<u>(1,915.7)</u>	<u>(889.3)</u>	<u>(1,024.0)</u>	<u><b>(1,350.5)</b></u>	<u><b>(1,326.4)</b></u>
<b>Total Expenses</b>	<u>(2,064.9)</u>	<u>(1,063.2)</u>	<u>(1,303.3)</u>	<u><b>(1,666.0)</b></u>	<u><b>(1,638.6)</b></u>
<b>Change in Net Position</b>	(702.0)	435.5	103.0	<b>(546.5)</b>	<b>(339.0)</b>
Net Position at beginning of year	<u>4,881.7</u>	<u>4,179.7</u>	<u>4,615.2</u>	<u><b>4,718.2</b></u>	<u><b>4,171.7</b></u>
Net Position at end of year	<u><u>4,179.7</u></u>	<u><u>4,615.2</u></u>	<u><u>4,718.2</u></u>	<u><u><b>4,171.7</b></u></u>	<u><u><b>3,832.7</b></u></u>
<b>Expense Summary</b>					
Agua Fria	(42.1)	(263.5)	(150.0)	<b>(262.2)</b>	<b>(206.8)</b>
Hieroglyphic Mountains	(734.8)	(163.2)	(263.6)	<b>(435.3)</b>	<b>(332.5)</b>
Lower Santa Cruz	(223.6)	(231.9)	(210.5)	<b>(434.7)</b>	<b>(331.8)</b>
Pima Mine Road	(74.2)	(104.2)	(194.5)	<b>(137.7)</b>	<b>(410.4)</b>
Superstition Mountain	(886.5)	(253.7)	(373.5)	<b>(313.4)</b>	<b>(276.3)</b>
Tonopah	(103.7)	(46.7)	(111.2)	<b>(82.7)</b>	<b>(80.8)</b>
<b>Total Expenses</b>	<u>(2,064.9)</u>	<u>(1,063.2)</u>	<u>(1,303.3)</u>	<u><b>(1,666.0)</b></u>	<u><b>(1,638.6)</b></u>

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

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Expenses</b>					
Salaries and related costs	(274.6)	(151.4)	(165.4)	(277.7)	(265.4)
Other operating expenses					
Outside services	(2,983.4)	(1,385.2)	(120.0)	(2,555.5)	(2,497.5)
Materials and supplies	(5.5)	(2.9)	-	(2.0)	(2.0)
Other costs	(304.4)	(154.2)	(1.1)	(345.7)	(332.8)
Subtotal	(3,293.3)	(1,542.3)	(121.1)	(2,903.2)	(2,832.3)
<b>Total Expenses</b>	<b>(3,567.9)</b>	<b>(1,693.7)</b>	<b>(286.5)</b>	<b>(3,180.9)</b>	<b>(3,097.7)</b>
<b>Expense Summary</b>					
EM-Steel Discharge Lines and manifold Recoat MWA	-	-	(277.0)	(3,180.9)	(3,097.7)
EM-Centennial Wash Siphon Repairs	(574.0)	(1,672.3)	(8.5)	-	-
EM-P4 Embankment & Road Issues	(2,939.6)	(21.4)	(1.0)	-	-
EM-Bouse MP 27.5 Emergency	(54.3)	-	-	-	-
Total Expenses	(3,567.9)	(1,693.7)	(286.5)	(3,180.9)	(3,097.7)

# STEEL DISCHARGE LINES & MANIFOLD RECOAT

<b>STRATEGY:</b>	Effectively Maintain CAP Assets	<b>START DATE:</b>	1 <sup>nd</sup> Quarter 2015
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>rd</sup> Quarter 2017
<b>PROJECT #:</b>	710034	<b>TOTAL PROJECT COST:</b>	\$6,555,600
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 6,555.6	\$ 277.0	\$ 3,180.9	\$ 3,097.7	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Project will provide a plan for CAP to hire a contractor to perform removal and replacement of existing coating on interior of steel discharge manifolds and lines at Mark Wilmer Pumping Plant. The contractor's work will be to provide all ventilation, safety systems and quality control to complete the work within the 60-day summer outage windows.

**JUSTIFICATION:** This has been an ongoing problem for 15 years. The internal coating continues to deteriorate and areas of pitting are beginning to occur. The lining is an integral component of protection for the pipeline.

**OPERATING IMPACT:** The project will be controlled by the scheduled outage of the plant. Returning the discharge manifold and lines to service at the end of construction cannot be delayed. The overall performance of the contractor will be insured by the quality assurance/quality control consultant hired by CAP to perform specification and plan review, and provide direct quality control/assurance during the construction. No ongoing operating expenses are expected.

**SOCIAL IMPACT:** Should the outage window be exceeded, significant impact to our power usage plan will result and impacts to our deliveries off the river. CAP will emphasize this in the contract and will include liquidated damages that reflect the economic risk to CAP should the outage window be exceeded.

**ENVIRONMENTAL IMPACT:** No change to the environment surrounding the discharge manifolds and lines is expected.

# CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT



In 1993, the Arizona legislature provided CAWCD with replenishment authority designed to help water providers and landowners comply with the State's Assured Water Supply Rules (AWS Rules) and to meet the objectives of the 1980 Groundwater Management Act. The replenishment authority is commonly referred to as the Central Arizona Groundwater Replenishment District or CAGRD. 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. Membership in the CAGRD is voluntary. Any city, town, water company, subdivision or homeowner's association located in Pima, Pinal or Maricopa counties may join the CAGRD. The 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 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 exceed the pumping limitations imposed by the AWS Rules. This category of water is referred to as excess groundwater.

## PLAN OF OPERATION

Starting in 2016, CAGRD will be operating under a new Plan of Operation. The Plan was submitted on January 1, 2015 after extensive collaboration with stakeholders. On August 15, 2015, the Arizona Department of Water Resources (ADWR) Director found the Plan to be consistent with the management goals of 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 new plan is effective through December 31, 2025.

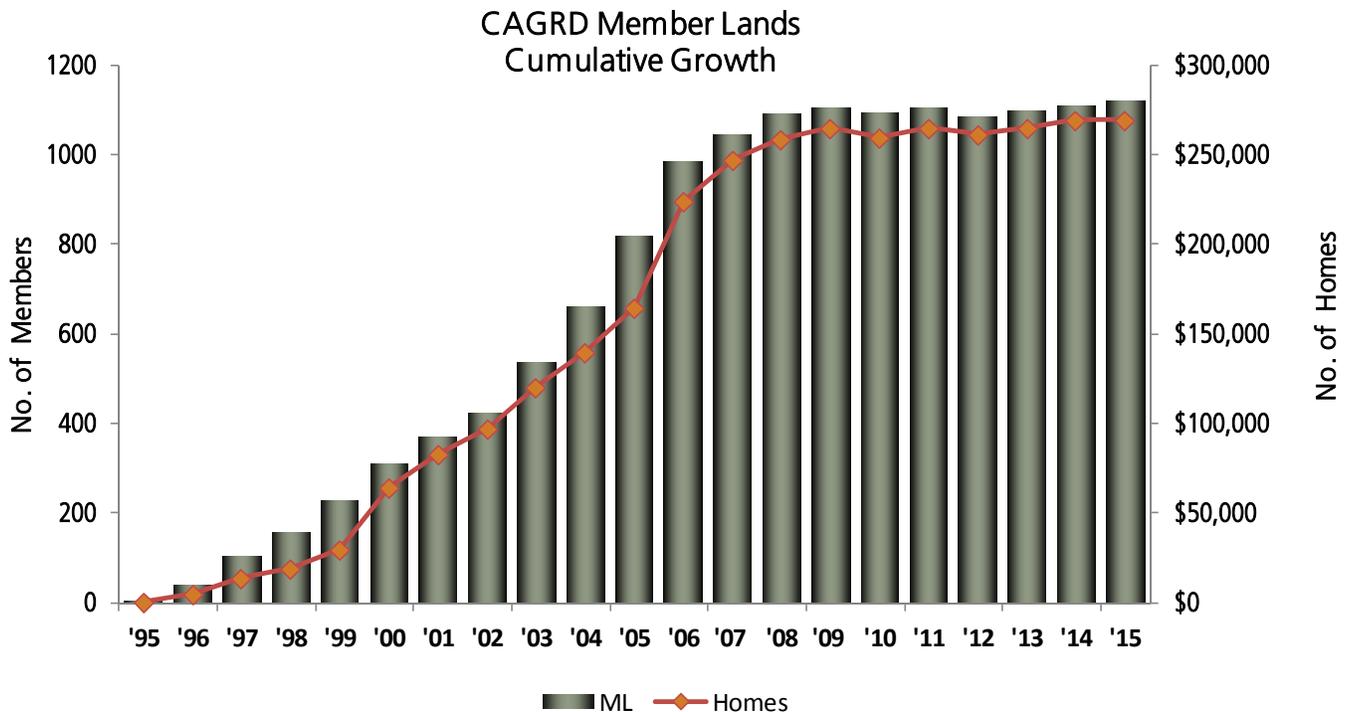


# REPLENISHMENT OBLIGATION

The first members were enrolled in the CAGR D in 1995. As shown on the following graph, the number of enrolled ML subdivisions will have grown to more than 1,120 through 2015 with approximately 270,000 homes falling within the ML boundaries. As indicated in the graph, ML enrollment has slowed considerably since 2008 due to the current economic environment. For purposes of developing the budget, it was assumed there will be a modest increase in the rate of ML enrollments during 2016 and 2017. The number of enrolled MSAs currently stands at 24. As the number of MLs and MSAs grows, CAGR D’s replenishment obligation will also grow.

The CAGR D incurs three different kinds of replenishment obligations:

- Parcel replenishment obligations, which result from excess groundwater deliveries to individual parcels of ML;
- Service area replenishment obligations, which result from excess groundwater deliveries within an MSA; and
- Contract replenishment obligations which will result from contracts executed between CAWCD and the water providers serving MSAs. Under such contracts, CAGR D would perform “Advance Replenishment” for the contracting MSA. Currently, CAGR D has only one active contract replenishment obligation agreement in place (i.e., City of Scottsdale).



# REVENUES

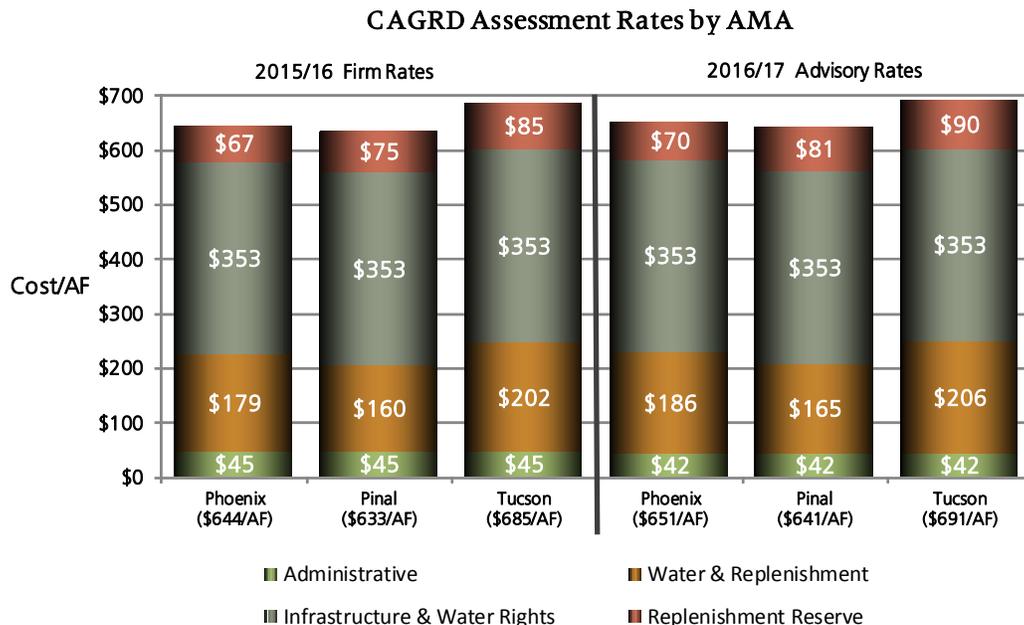
The CAGR D was established with the requirement that all of the costs of the CAGR D be paid by its members. CAGR D has three primary sources of revenues: annual replenishment assessments, up-front fees and membership dues. In addition, CAGR D accrues interest on the reserves established by these sources.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

Annual replenishment assessments are collected from CAGR D 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. CAGR D’s assessment rates are established by individual AMAs 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 costs incurred by CAGR D.

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

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

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 propose to enroll a subdivision as an ML of the CAGR. 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's conservation program.

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

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 behalf of both ML and MSA subdivisions after they are enrolled but before the subdivision homes are actually constructed.

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

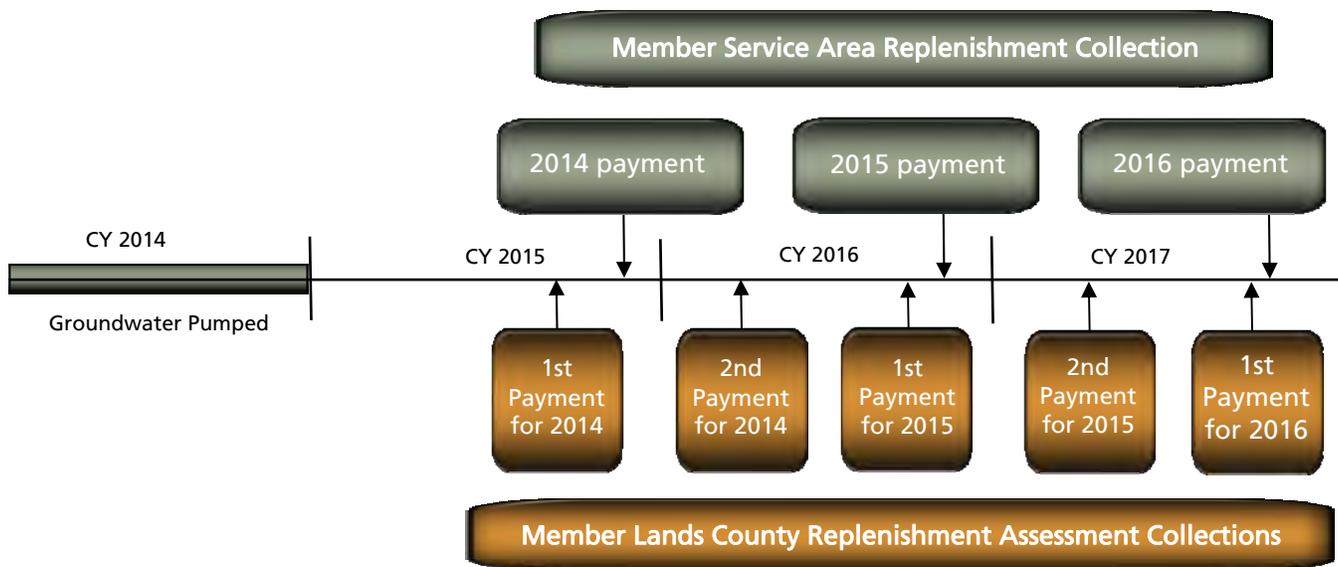
Membership dues apply to all members, even if they are not yet reporting excess groundwater use. Membership dues provide a reliable revenue source that can assist in establishing creditworthiness for potential bonding and funds to secure water supplies and related infrastructure.

A cost of service study was conducted in 2015. The study looked at the administrative services provided to CAGR's different customer classes (e.g., the development community, the homebuilding industry, member service areas, member land water providers, individual homeowners within member lands) and evaluated whether or not the revenue received from each customer class is appropriate to the services provided. The collection and use of some of the revenues that CAGR receives are governed by Board policy, while some CAGR revenues are defined in statute. As a result of this study, some rate components are under discussion for possible adjustment in the future.

## EXPENSES

CAGR has ongoing operating expenses and costs related to administration, planning, membership enrollment, annual reporting and satisfaction of annual replenishment obligations. The largest expenses incurred by CAGR result from purchasing and recharging water to meet existing obligations and acquisition of water rights to insure satisfaction of future replenishment obligations. In addition, consulting services are required to support the long-term water rights acquisition program.

The CAGR replenishment assessment rates are established based on the actual volume of excess groundwater used by CAGR members in the previous year. CAGR has up to three years to actually replenish water, so the actual replenishment may lag as well and may be accomplished earlier or later than when collections are received. This point is illustrated on the following diagram using groundwater pumped in calendar year 2014.



## WATER SUPPLY PROGRAM

CAGR D’s Plan of Operation outlines a program that identifies a water supply portfolio including general time frames and volumes. In accordance with the plan, CAGR D has budgeted funds in 2016 and 2017 for the water supply program that can be used to meet its replenishment obligations in the long-term. CAGR D anticipates a NIA reallocation in 2017 following a recommendation by the AWDR and acceptance by the Bureau of that recommendation, through the Secretary of the Interior’s authority.

## CHANGE IN NET POSITION

Net position is anticipated to increase \$22.5 million in 2016 and \$24.6 million in 2017. This increase is primarily due to the continued generation of revenues and establishment of capital reserve funds to support the long-term water rights acquisition program identified in CAGR D’s Plan of Operation. In addition, CAGR D is collecting revenues and accruing long-term storage credits in the establishment of its replenishment reserve, which also increases CAGR D’s net position. In effect, CAGR D 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)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Operating Revenues</b>					
Reimbursements & other operating revenues	\$ 23,250.1	\$ 26,408.4	\$ 29,478.5	\$ 33,419.4	\$ 36,309.0
<b>Total Operating Revenues</b>	<b>23,250.1</b>	<b>26,408.4</b>	<b>29,478.5</b>	<b>33,419.4</b>	<b>36,309.0</b>
<b>Operating Expenses</b>					
Salaries and related costs	(915.8)	(931.9)	(944.3)	(979.1)	(1,008.5)
Other operating expenses					
Outside services	(813.2)	(2,029.4)	(2,302.9)	(1,328.4)	(980.4)
Overhead	(979.1)	(920.3)	(937.3)	(1,077.2)	(1,109.5)
Water for recharge	(5,358.5)	(5,519.6)	(6,750.9)	(7,613.3)	(8,312.2)
Other expenses	(18.3)	(17.0)	(25.6)	(32.9)	(32.9)
Subtotal	(7,169.1)	(8,486.3)	(10,016.7)	(10,051.8)	(10,435.0)
<b>Total Operating Expenses</b>	<b>(8,084.9)</b>	<b>(9,418.2)</b>	<b>(10,961.0)</b>	<b>(11,030.9)</b>	<b>(11,443.5)</b>
<b>Net Operating Income/(Loss)</b>	<b>15,165.2</b>	<b>16,990.2</b>	<b>18,517.5</b>	<b>22,388.5</b>	<b>24,865.5</b>
<b>Non-operating Revenues/(Expenses)</b>					
Interest income	78.7	68.9	101.8	137.2	172.7
Interest expense	-	-	-	-	(442.9)
<b>Net Non-operating Income/(Loss)</b>	<b>78.7</b>	<b>68.9</b>	<b>101.8</b>	<b>137.2</b>	<b>(270.2)</b>
<b>Change in Net Position</b>	<b>15,243.9</b>	<b>17,059.1</b>	<b>18,619.3</b>	<b>22,525.7</b>	<b>24,595.3</b>
Net Position as beginning of period	63,793.8	79,037.7	96,096.8	114,716.1	137,241.8
<b>Net Position at end of period</b>	<b>\$ 79,037.7</b>	<b>\$ 96,096.8</b>	<b>\$ 114,716.1</b>	<b>\$ 137,241.8</b>	<b>\$ 161,837.1</b>

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

	PUMPING			
	2013	2014	2015	2016
<b>REPLENISHMENT OBLIGATIONS</b>				
<b>(Acre-Feet Pumped by CAGR Members)</b>				
<b>Replenishment Obligation by AMA</b>				
Phoenix AMA	30,967	30,397	34,342	36,791
Pinal AMA	215	551	749	532
Tucson AMA	2,914	2,958	3,323	3,777
Total Replenishment Obligation	34,096	33,906	38,414	41,100

<b>Contract Replenishment Obligation by AMA</b>				
East Phoenix AMA - Scottsdale	509	600	600	600
Tucson AMA - Metro Water	-	-	-	-
Total Contract Replenishment Obligations	509	600	600	600

WATER PURCHASES					
2014	2015	2016	2017	2018	Total

**WATER PURCHASES & CREDIT TRANSFERS TO MEET REPLENISHMENT OBLIGATIONS**  
 (Acre-Feet to Cover Pumping by Members)

**Replenishment Obligation (Notes)**

2013 Pumping	14,698	19,597	-	-	-	34,295
2014 Pumping	-	4,125	29,563	557	-	34,245
2015 Pumping	-	-	-	38,797	-	38,797
2016 Pumping	-	-	-	-	41,511	41,511
	14,698	23,722	29,563	39,354	41,511	148,848

**Contract Replenishment Obligation**

2013 Pumping	509	-	-	-	-	509
2014 Pumping	-	600	-	-	-	600
2015 Pumping	-	-	600	-	-	600
2016 Pumping	-	-	-	600	-	600
	509	600	600	600	-	2,309

**Notes:**

AMA = Active Management Area.

Purchases will exceed acre-feet pumped generally by about 1% due to losses that occur during recharge.

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

	2014	2015	2016	2017	2018	Total
<b>PURCHASED WATER and CREDIT TRANSFERS</b>						
<b>(Acre-Feet To Cover Pumping by Members)</b>						
<b>Replenishment Obligation Purchases by Year by AMA</b>						
<b>Phoenix AMA</b>						
2013 Pumping	13,649	17,465	-	-	-	31,114
2014 Pumping	-	4,125	26,576	-	-	30,701
2015 Pumping	-	-	-	34,685	-	34,685
2016 Pumping	-	-	-	-	37,159	37,159
	<u>13,649</u>	<u>21,590</u>	<u>26,576</u>	<u>34,685</u>	<u>37,159</u>	<u>133,659</u>
<b>Pinal AMA</b>						
2013 Pumping	59	158	-	-	-	217
2014 Pumping	-	-	-	557	-	557
2015 Pumping	-	-	-	756	-	756
2016 Pumping	-	-	-	-	537	537
	<u>59</u>	<u>158</u>	<u>-</u>	<u>1,313</u>	<u>537</u>	<u>2,067</u>
<b>Tucson AMA</b>						
2013 Pumping	990	1,974	-	-	-	2,964
2014 Pumping	-	-	2,987	-	-	2,987
2015 Pumping	-	-	-	3,356	-	3,356
2016 Pumping	-	-	-	-	3,815	3,815
	<u>990</u>	<u>1,974</u>	<u>2,987</u>	<u>3,356</u>	<u>3,815</u>	<u>13,122</u>
<b>Total Replenishment Obligation</b>	<b><u>14,698</u></b>	<b><u>23,722</u></b>	<b><u>29,563</u></b>	<b><u>39,354</u></b>	<b><u>41,511</u></b>	<b><u>148,848</u></b>
<b>Contract Replenishment Obligation by AMA</b>						
<b>East Phoenix AMA - Scottsdale</b>						
2013 Pumping	509	-	-	-	-	509
2014 Pumping	-	600	-	-	-	600
2015 Pumping	-	-	600	-	-	600
2016 Pumping	-	-	-	600	-	600
	<u>509</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>-</u>	<u>2,309</u>
<b>Tucson AMA - Metro Water</b>						
2013 Pumping	-	-	-	-	-	-
2014 Pumping	-	-	-	-	-	-
2015 Pumping	-	-	-	-	-	-
2016 Pumping	-	-	-	-	-	-
	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Total Contract Replenishment Obligation</b>	<b><u>509</u></b>	<b><u>600</u></b>	<b><u>600</u></b>	<b><u>600</u></b>	<b><u>-</u></b>	<b><u>2,309</u></b>

# CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ACCOUNT

## RESERVE BALANCES

Cash Basis (Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Water and Replenishment:</b>					
Beginning Fund Balance	\$ 4,699.2	\$ 3,920.2	\$ 2,737.1	\$ 2,183.0	\$ 3,249.9
Revenue	4,993.7	5,425.1	6,078.0	7,244.1	7,976.6
Water Purchased	(5,779.4)	(6,611.9)	(6,637.2)	(6,183.2)	(5,710.6)
Interest Income	6.7	3.7	5.1	6.0	9.6
Ending Fund Balance	\$ 3,920.2	\$ 2,737.1	\$ 2,183.0	\$ 3,249.9	\$ 5,525.5
<b>Replenishment Reserve:</b>					
Beginning Fund Balance	\$ 1,297.5	\$ 826.9	\$ 470.9	\$ 407.7	\$ 313.1
Revenue	2,016.2	2,349.8	2,310.7	2,720.2	2,931.5
Water Purchased	(488.3)	(1,013.6)	(565.7)	(475.4)	(766.2)
CAP Credits	(35.0)	(1,611.3)	(1,811.7)	(2,342.3)	(2,389.1)
Other Credits	(1,967.0)	(83.5)	-	-	-
Interest Income	3.5	2.6	3.5	2.9	3.3
Ending Fund Balance	\$ 826.9	\$ 470.9	\$ 407.7	\$ 313.1	\$ 92.6
<b>Infrastructure and Water Rights:</b>					
Beginning Fund Balance	\$ 32,448.0	\$ 43,650.0	\$ 49,207.5	\$ 49,188.0	\$ 65,848.0
Revenue	12,861.6	16,987.7	17,458.9	21,809.8	23,366.2
Water Rights Purchases	-	(4,800.0)	-	(254.4)	-
Long Term Storage Credits	(316.8)	(4,034.9)	(14,748.4)	(3,850.7)	(9,773.8)
Technical Studies & Other Expenses	(1,410.8)	(2,655.8)	(2,814.0)	(1,171.1)	(1,371.0)
Interest Income	68.0	60.5	84.0	126.4	158.3
Ending Fund Balance	\$ 43,650.0	\$ 49,207.5	\$ 49,188.0	\$ 65,848.0	\$ 78,227.7
<b>Administrative:</b>					
Beginning Fund Balance	\$ 476.4	\$ 771.7	\$ 985.7	\$ 1,167.5	\$ 609.5
Revenue	1,544.7	1,469.0	1,539.3	1,686.4	1,619.1
Operating Expenses	(1,252.2)	(1,256.7)	(1,360.0)	(2,246.4)	(2,203.2)
Interest Income	2.8	1.7	2.5	2.0	1.4
Ending Fund Balance	\$ 771.7	\$ 985.7	\$ 1,167.5	\$ 609.5	\$ 26.8

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

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Phoenix AMA</b>					
Beginning Fund Balance	\$ 4,131.1	\$ 3,471.3	\$ 2,251.7	\$ 1,551.3	\$ 2,292.8
Revenue	4,465.7	4,765.8	5,387.4	6,401.0	7,104.8
Water Purchased	(5,131.6)	(5,988.7)	(6,092.4)	(5,663.7)	(5,273.6)
Interest Income	6.1	3.3	4.6	4.2	7.1
Ending Fund Balance	\$ 3,471.3	\$ 2,251.7	\$ 1,551.3	\$ 2,292.8	\$ 4,131.1
<b>Pinal AMA</b>					
Beginning Fund Balance	\$ 27.3	\$ 44.9	\$ 103.0	\$ 194.5	\$ 326.2
Revenue	43.7	110.0	91.4	131.1	92.7
Water Purchased	(26.1)	(52.0)	-	-	-
Interest Income	-	0.1	0.1	0.6	0.8
Ending Fund Balance	\$ 44.9	\$ 103.0	\$ 194.5	\$ 326.2	\$ 419.7
<b>Tucson AMA</b>					
Beginning Fund Balance	\$ 540.8	\$ 404.0	\$ 382.4	\$ 437.2	\$ 630.9
Revenue	484.3	549.3	599.2	712.0	779.1
Water Purchased	(621.7)	(571.2)	(544.8)	(519.5)	(437.0)
Interest Income	0.6	0.3	0.4	1.2	1.8
Ending Fund Balance	\$ 404.0	\$ 382.4	\$ 437.2	\$ 630.9	\$ 974.8
<b>Total - All AMAs</b>					
Beginning Fund Balance	\$ 4,699.2	\$ 3,920.2	\$ 2,737.1	\$ 2,183.0	\$ 3,249.9
Revenue	4,993.7	5,425.1	6,078.0	7,244.1	7,976.6
Water Purchased	(5,779.4)	(6,611.9)	(6,637.2)	(6,183.2)	(5,710.6)
Interest Income	6.7	3.7	5.1	6.0	9.6
Ending Fund Balance	\$ 3,920.2	\$ 2,737.1	\$ 2,183.0	\$ 3,249.9	\$ 5,525.5

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

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Phoenix AMA</b>					
Beginning Fund Balance	\$ 933.4	\$ 614.9	\$ 434.4	\$ 382.8	\$ 278.5
Revenue	1,795.3	2,086.2	2,029.6	2,359.8	2,558.4
Water Purchased	(149.6)	(675.9)	(331.1)	(187.9)	(428.7)
CAP Credits	-	(1,509.3)	(1,752.8)	(2,278.8)	(2,332.1)
Other Credits	(1,967.0)	(83.5)	-	-	-
Interest Income	2.7	2.0	2.7	2.6	3.0
Ending Fund Balance	\$ 614.9	\$ 434.4	\$ 382.8	\$ 278.5	\$ 79.1
<b>Pinal AMA</b>					
Beginning Fund Balance	\$ 15.3	\$ 1.0	\$ 9.5	\$ 2.5	\$ 8.2
Revenue	20.5	58.8	51.6	69.1	50.8
Water Purchased	-	-	-	-	-
CAP Credits	(35.0)	(50.5)	(58.9)	(63.5)	(57.0)
Other Credits	-	-	-	-	-
Interest Income	0.1	0.2	0.3	0.1	0.2
Ending Fund Balance	\$ 1.0	\$ 9.5	\$ 2.5	\$ 8.2	\$ 2.2
<b>Tucson AMA</b>					
Beginning Fund Balance	\$ 348.8	\$ 211.2	\$ 27.2	\$ 22.1	\$ 26.1
Revenue	200.4	204.8	229.5	291.3	322.3
Water Purchased	(338.7)	(337.7)	(234.6)	(287.5)	(337.5)
CAP Credits	-	(51.5)	-	-	-
Other Credits	-	-	-	-	-
Interest Income	0.7	0.4	0.1	0.2	0.2
Ending Fund Balance	\$ 211.2	\$ 27.2	\$ 22.1	\$ 26.1	\$ 11.1
<b>Total - All AMAs</b>					
Beginning Fund Balance	\$ 1,297.5	\$ 826.9	\$ 470.9	\$ 407.7	\$ 313.1
Revenue	2,016.2	2,349.8	2,310.7	2,720.2	2,931.5
Water Purchased	(488.3)	(1,013.6)	(565.7)	(475.4)	(766.2)
CAP Credits	(35.0)	(1,611.3)	(1,811.7)	(2,342.3)	(2,389.1)
Other Credits	(1,967.0)	(83.5)	-	-	-
Interest Income	3.5	2.6	3.5	2.9	3.3
Ending Fund Balance	\$ 826.9	\$ 470.9	\$ 407.7	\$ 313.1	\$ 92.6



# 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)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Other expenses	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Operating Expenses</b>	-	-	-	-	-
<b>Non-operating Revenues/(Expenses)</b>					
Interest income	35.1	165.0	122.9	145.6	164.7
<b>Total Non-operating Revenues</b>	35.1	165.0	122.9	145.6	164.7
<b>Change in Net Position</b>	35.1	165.0	122.9	145.6	164.7
Net Position at beginning of period	7,846.4	7,881.5	8,046.5	8,169.4	8,315.0
<b>Net Position at end of period</b>	<b>\$ 7,881.5</b>	<b>\$ 8,046.5</b>	<b>\$ 8,169.4</b>	<b>\$ 8,315.0</b>	<b>\$ 8,479.7</b>



# CAPTIVE INSURANCE FUND

A captive insurance company is a closely-held insurance company whose insurance business is primarily supplied by and controlled by its owners. The CAWCD Insurance Company, Inc. ("Captive"), is a tax exempt wholly-owned corporation formed in 2003 for the purposes of self-insuring the lower layers of CAWCD's property and casualty insurance. Rising premium costs and deductible levels experienced in the traditional insurance market, plus the relatively high value of the District's infrastructure and its geographic dispersion, resulted in the decision to form the Captive. The Captive insures the first \$2 million of the District's potential future losses on property and casualty with the balance of the coverage requirements addressed through traditional reinsurance. Health insurance was added to the Captive in 2012.

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 Administrator 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 (e.g., 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 (e.g., losses paid, provision for future claims) and general and administrative expenses (e.g., management fee, premium taxes, actuarial, legal, banking and audit fees).

By statute, the state of Hawaii, where the Captive is incorporated and licensed to do business, requires the Captive to have a minimum reserve of \$2,250,000 plus an amount actuarially determined for prior and future losses. Of this amount, \$2 million is part of the \$10 million Contingency Reserve in the strategic reserves.

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

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Operating Revenues</b>					
Reimbursements and other operating revenues	\$ 7,473.1	\$ 7,877.9	\$ 8,053.5	\$ 8,538.9	\$ 8,824.1
<b>Total Operating Revenues</b>	<u>7,473.1</u>	<u>7,877.9</u>	<u>8,053.5</u>	<u>8,538.9</u>	<u>8,824.1</u>
<b>Operating Expenses</b>					
Other operating expenses					
Outside services	(172.8)	(172.7)	(176.1)	(162.4)	(162.7)
Other expenses	(6,444.2)	(8,751.0)	(7,743.0)	(8,240.1)	(8,572.7)
<b>Total Operating Expenses</b>	<u>(6,617.0)</u>	<u>(8,923.7)</u>	<u>(7,919.1)</u>	<u>(8,402.5)</u>	<u>(8,735.4)</u>
<b>Net Operating Income/(Loss)</b>	<u>856.1</u>	<u>(1,045.8)</u>	<u>134.4</u>	<u>136.4</u>	<u>88.7</u>
<b>Non-operating Revenues/(Expenses)</b>					
Interest and other income	10.4	7.2	9.4	7.0	7.1
<b>Total Non-operating Revenues/(Loss)</b>	<u>10.4</u>	<u>7.2</u>	<u>9.4</u>	<u>7.0</u>	<u>7.1</u>
<b>Change in Net Position</b>	<u>866.5</u>	<u>(1,038.6)</u>	<u>143.8</u>	<u>143.4</u>	<u>95.8</u>
Net Position as beginning of period	4,562.8	5,429.3	4,390.7	4,534.5	4,677.9
<b>Net Position at end of period</b>	<u>\$ 5,429.3</u>	<u>\$ 4,390.7</u>	<u>\$ 4,534.5</u>	<u>\$ 4,677.9</u>	<u>\$ 4,773.7</u>

# CAPITAL BUDGET

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

## Finance

- Maintain a long-term CIP consistent with ensuring system reliability, including major equipment replacement and rehabilitation.
- Develop a strategy to maintain stable and predictable rates, including establishing appropriate reserves, a rate-setting methodology and a rate stabilization mechanism to be used during a shortage.

## Project Reliability

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

## Power

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

The six-year capital budget covers the years 2016 through 2021. The Board of Directors (Board) is asked to approve capital expenditures for 2016 and 2017. Capital equipment and projects shown after 2017 are for advisory purposes to inform the Board and constituents of future capital budget requirements.

This document includes:

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

## CAPITAL BUDGET PROCESS

### CAPITAL EQUIPMENT

CAP cost centers begin the capital budget process by identifying specific capital equipment needs for the 2016 / 2017 budget. Included with their request is a business rationale to justify the equipment purchase and a review of alternatives to acquiring the item. For equipment that exceeds \$100,000, a business justification analysis is performed and a recommendation is provided to the Project Steering Committee (PSC) for inclusion in the budget. For the fleet vehicle budget, a separate analysis is performed to determine if vehicles are being utilized per CAP's fleet vehicle policy and to evaluate the need for additional or replacement vehicles. The guidelines established by this policy address the acquisition, assignment, pooling, replacement and disposal of fleet vehicles.

For equipment shown during the 2018 through 2021 planning period, CAP utilizes the long-range financial plan (LRFP) to identify potential capital equipment that may require funding during the planning horizon. The LRFP is developed by the Finance Department in conjunction with other key staff within CAP.

### CAPITAL IMPROVEMENT PROGRAM (CIP)

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

#### Advisory Projects Post-2017

The CIP projects listed as advisory projects post-2017 are a combination of projects that are scheduled to begin after 2017 and projects that are still in the evaluation stage within the PSC approval process. Based on proper justification, funding and available resources, these projects may be approved and implemented out-of-budget within the capital budget guidelines.

## BIENNIAL BUDGETING

In the event a new capital spending requirement develops in the off-budget year, it can proceed only if the PSC process is followed and is within the Board-approved capital budget limit (refer to pages 4-5 and 4-6). The PSC and management may re-prioritize existing projects in order to accommodate a new project from a budget and resource perspective. If the new project will exceed the spending authority approved by the Board, then additional Board approval is required.

## PROJECT STEERING COMMITTEE (PSC) PROCESS

CAP has established a policy to facilitate cost-effective, consistent and objective project planning, approval, implementation and completion. To facilitate this, the PSC is comprised of a cross-functional management team that has been established to evaluate, prioritize and oversee large projects. A Project Management Office (PMO) in Engineering and IT has been established to manage all projects regardless of the size and to facilitate communication between project managers and the PSC.

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

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

### PROJECT STEERING COMMITTEE (PSC) OBJECTIVES

Provide overall project governance

Ensure consistency with CAP's business strategies and system architecture

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

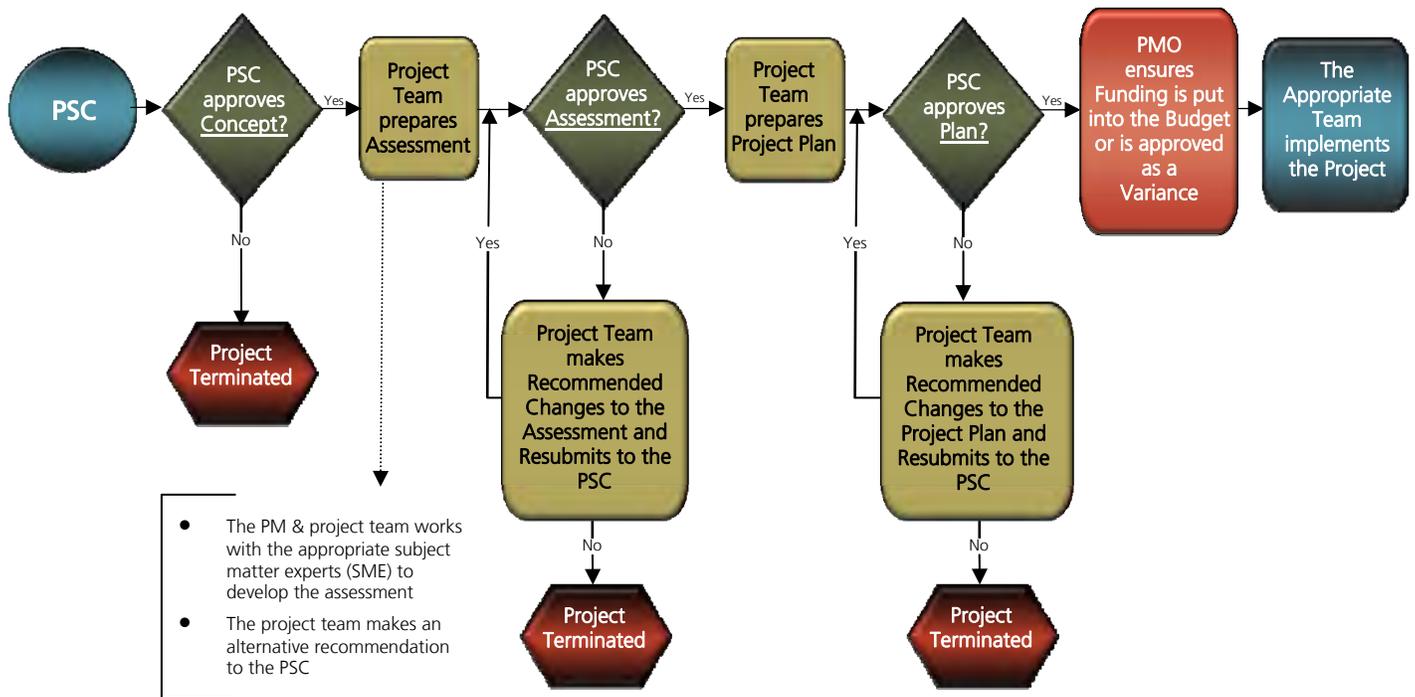
Authorize performing work out-of-budget or delaying work until the next budget cycle

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

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

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

# PROJECT STEERING COMMITTEE -- PROCESS



## PSC CONTROLS

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

### Review Guidelines:

Spending threshold - Lesser of:

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

Schedule change - Lesser of:

- 6 months of schedule slip
- Delays move the project into a previously unbudgeted year

## PSC PROCESS AND THE BUDGET

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

# FUNDING & EXPENDITURES

## FUNDING

CAP funds the capital budget on a pay-as-you-go basis from a major repair and replacement (“Big R”) rate component, which is included in the Fixed Operation, Maintenance and Replacement (OM&R) water rate. CAP’s strategy for reserve targets anticipates fluctuation in annual operating and capital expenditures and also maintains an allowance in the event of extraordinary emergency repairs. The “Big R” rate component is designed to reduce major fluctuations in the capital portion of CAP’s annual rates. Significant variability in annual capital expenditures may temporarily impact CAP strategic reserves. During periods of increased capital expenditures, strategic reserves will be used to cover any variance between the established pre-set rates and the actual expenditures eliminating the risk of rate shock.

Certain capital projects are not included in “Big R”. Recharge projects are funded from property taxes less recharge capital charges received. Central Arizona Groundwater Replenishment District (CAGR) may also have capital projects that are funded from appropriate CAGR sources. Funding sources are indicated for each CIP project.

Shown below are the capital expenditures that covers 2013 through 2017. The CIP summary and capital equipment summary are included on the following pages.

CAPITAL EXPENDITURES					
<i>(Millions)</i>	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
Capital Improvement Program	\$ 23.8	\$ 26.2	\$ 48.4	\$ 39.4	\$ 43.5
Capital Equipment	2.6	8.6	3.1	5.8	3.1
	<b>\$ 26.4</b>	<b>\$ 34.8</b>	<b>\$ 51.5</b>	<b>\$ 45.2</b>	<b>\$ 46.6</b>



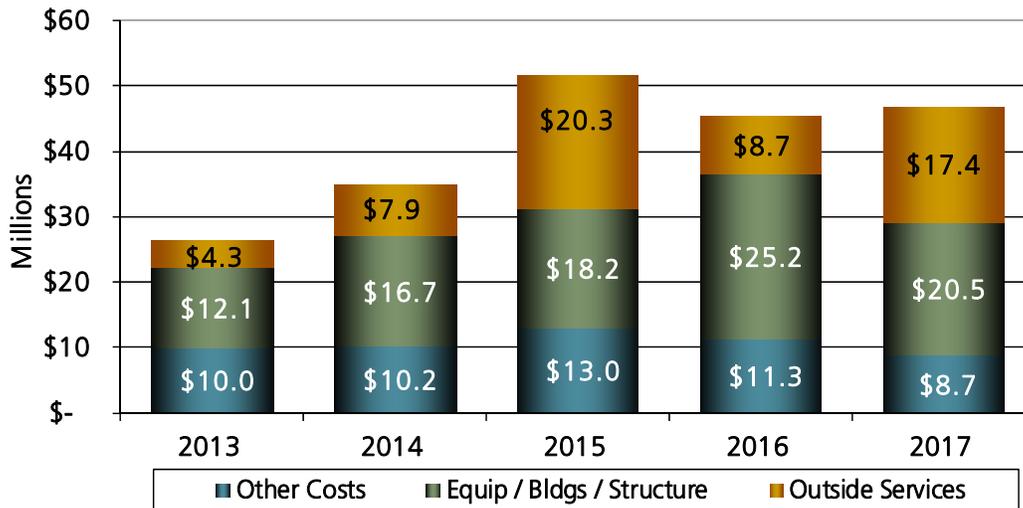
Inside Waddell Pumping Generating Plant

# CAPITAL BUDGET SUMMARY

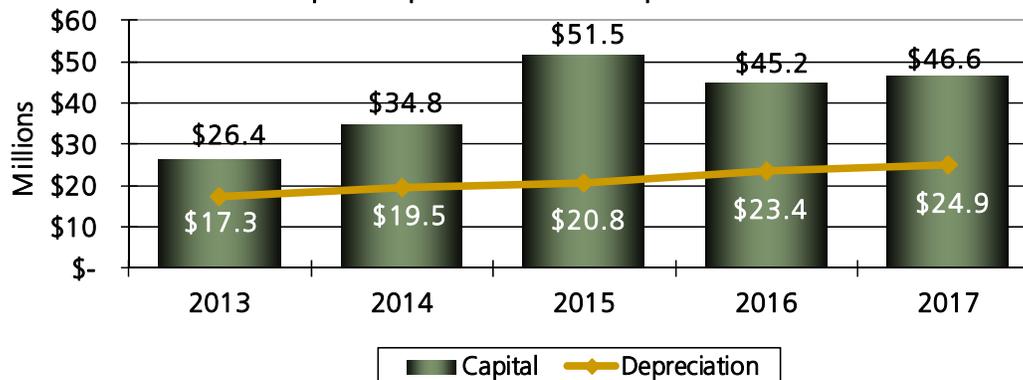
(Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Expenditures</b>					
Salaries and related costs	\$ 4,343.8	\$ 4,893.9	\$ 6,240.6	\$ 5,408.6	\$ 4,257.2
Equipment, buildings, and structures	12,096.9	16,702.3	18,172.9	25,196.4	20,453.2
Other expenses	-	-	-	-	-
Outside services	4,319.0	7,984.6	20,365.5	8,726.3	17,385.4
Materials and supplies	697.8	282.4	206.1	23.4	14.9
Other expenses	4,928.0	4,975.4	6,507.0	5,822.5	4,439.5
	9,944.8	13,242.4	27,078.6	14,572.2	21,839.8
<b>Total capital</b>	<b>\$ 26,385.5</b>	<b>\$ 34,838.6</b>	<b>\$ 51,492.1</b>	<b>\$ 45,177.2</b>	<b>\$ 46,550.2</b>
Less Reimbursement-Pima Mine Road	-	(468.9)	(46.2)	(50.5)	-
<b>Net capital</b>	<b>\$ 26,385.5</b>	<b>\$ 34,369.7</b>	<b>\$ 51,445.9</b>	<b>\$ 45,126.7</b>	<b>\$ 46,550.2</b>

## Total Capital Expenditures



## Comparison of Capital Expenditures and Depreciation



# CAPITAL BUDGET SUMMARY

(Thousands)

	See Page	Total Project Cost	Pre-2016 Project Cost	2016 Budget	2017 Budget
<b>Capital Improvement Program</b>					
Annunciator panel replacement at pumping plants	6-11	\$ 5,040.6	\$ 4,829.8	\$ 210.8	-
APS transmission line/Hassayampa tap connection	6-12	45,100.1	21,685.1	4,391.9	15,072.0
As-builts pumping plants phase 2	6-13	18,722.9	17,632.9	1,090.0	-
Backup power system replacements	6-14	6,038.3	193.6	1,116.9	1,704.1
Bridge at Pima Mine Road	6-15	1,201.0	1,100.0	101.0	-
Building 1 HVAC replacement	6-16	6,146.9	739.1	3,958.5	1,449.3
Centralized reliability information mgmt system	6-17	500.0	0.0	250.0	250.0
Chlorination system replacement at plants	6-18	1,949.5	36.4	444.1	1,416.3
Communication cable replacement phase 5	6-19	1,872.0	0.0	283.2	1,588.8
Condition-based monitoring	6-20	7,902.0	5,148.1	1,713.0	1,040.9
Digital asset management system	6-21	835.0	0.0	585.0	250.0
Discharge valve replacement at pumping plants	6-22	5,793.8	3,169.2	1,343.1	1,241.5
Electromechanical relay replacement phase 1	6-23	33,715.0	0.0	969.7	1,510.7
Elevator system control/drive replacement	6-24	3,671.5	1,790.4	1,817.2	63.9
Emergency public address system at headquarters	6-25	1,720.5	1,005.1	715.4	-
Enterprise project management system	6-26	276.3	116.3	160.0	-
Flowmeter replacement	6-27	482.9	348.0	134.9	-
Hassayampa access road improvements	6-28	556.6	0.0	123.2	433.4
Headquarters fuel system replacement	6-29	1,355.9	0.0	58.8	251.8
Hydrology improvements at Centennial Wash	6-30	1,733.3	326.0	1,378.5	28.8
Industrial water treatment room at pumping plants	6-31	2,611.6	536.8	990.1	1,084.7
Maintenance building enclosures	6-32	1,141.6	0.0	32.6	686.2
MWP circuit breakers/compressed air system	6-33	9,331.1	0.0	1,031.5	2,895.7
Motor exciter/control unit replacement	6-34	14,918.7	1,432.8	3,069.4	3,064.4
Projects under \$250K	6-35	1,311.8	0.0	716.2	595.6
Reach 11 Dike 1 fence relocation	6-36	834.3	0.0	115.2	715.1
Server room and multi-function space	6-37	6,700.5	4,954.6	1,745.9	-
Siphon stop logs at Cunningham, Gila, Santa Cruz	6-38	2,616.6	0.0	434.0	2,119.9
South Central maintenance facility	6-39	1,015.0	0.0	443.3	557.0
South plants fire protection	6-40	8,146.4	0.0	0.0	518.7
Station service battery charger replacement	6-41	1,602.4	1,500.9	101.5	-
Sump pump water level controls at pumping plants	6-42	1,392.2	107.0	273.9	573.7
Superstition Mtn recharge drainage improvements	6-43	2,835.1	146.8	2,629.3	59.0
Transmission line rebuild ED2 to Saguaro	6-44	11,015.0	5,125.0	2,170.0	2,151.4
Trashrake installation at Mark Wilmer	6-45	7,283.9	3,878.1	3,370.1	35.7
Twin Peaks and Sandario HVAC replacement	6-46	3,374.1	0.0	73.1	1,093.8
UZ1B switchgear replacement at Waddell	6-47	1,209.8	1,173.8	36.0	-
Waddell computer control system replacement	6-48	466.3	0.0	401.6	64.7
Waddell governor controls replacement	6-49	1,748.1	0.0	0.0	521.0
Waddell River outlet works	6-50	617.3	133.5	483.8	-
West Plants bus disconnect switch replacement	6-51	1,114.8	0.0	407.5	378.9
<b>Total Capital Projects</b>				<b>\$ 39,370.2</b>	<b>43,417.1</b>
<b>Advisory Projects post-2017</b>					
Cathodic protection anode bed replacement		7,350.0	-	-	-
Condition-based monitoring phase 2		2,000.0	-	-	-
Discharge valves - Bouse/L. Harq/Hassayampa PP		6,000.0	-	-	-
Elevator system control/drive replacement phase 2		4,998.9	-	-	-
Microwave radios		1,900.0	-	-	-
Mobile maintenance		3,000.0	-	-	-
Motor rewinds south plants		12,000.0	-	-	-
Opentext/Livelink replatforming		2,000.0	-	-	-
Transformer - McCullough		3,420.0	-	-	-
Transmission line rebuild Rattlesnake to Del Bac		17,000.0	-	-	-
Trash rakes - southern plants		20,000.0	-	-	-
Unbundle alarms, PLC I/O reliability optimization		1,414.8	-	-	-
Other capital projects		9,964.4	-	-	-
<b>Total Advisory Projects post-2017</b>				<b>-</b>	<b>-</b>
<b>Total Capital Improvement Plan</b>				<b>39,370.2</b>	<b>43,417.1</b>
<b>Capital Equipment</b>				<b>5,807.0</b>	<b>3,133.1</b>
<b>Total Capital Budget</b>				<b>\$ 45,177.2</b>	<b>\$ 46,550.2</b>

# CAPITAL BUDGET SUMMARY

(Thousands)

	2018	2019	2020	2021	Balance
	Advisory	Advisory	Advisory	Advisory	
<b>Capital Improvement Program</b>					
Annunciator panel replacement at pumping plants	\$ -	\$ -	\$ -	\$ -	\$ -
APS transmission line/Hassayampa tap connection	5,419.6	(1,468.5)	0.0	0.0	0.0
As-builts pumping plants phase 2	0.0	0.0	0.0	0.0	0.0
Backup power system replacements	1,407.6	1,616.1	0.0	0.0	0.0
Bridge at Pima Mine Road	0.0	0.0	0.0	0.0	0.0
Building 1 HVAC replacement	0.0	0.0	0.0	0.0	0.0
Centralized reliability information mgmt system	0.0	0.0	0.0	0.0	0.0
Chlorination system replacement at plants	52.7	0.0	0.0	0.0	0.0
Communication cable replacement phase 5	0.0	0.0	0.0	0.0	0.0
Condition-based monitoring	0.0	0.0	0.0	0.0	0.0
Digital asset management system	0.0	0.0	0.0	0.0	0.0
Discharge valve replacement at pumping plants	40.0	0.0	0.0	0.0	0.0
Electromechanical relay replacement phase 1	1,421.9	2,229.6	4,362.1	4,246.0	18,975.0
Elevator system control/drive replacement	0.0	0.0	0.0	0.0	0.0
Emergency public address system at headquarters	0.0	0.0	0.0	0.0	0.0
Enterprise project management system	0.0	0.0	0.0	0.0	0.0
Flowmeter replacement	0.0	0.0	0.0	0.0	0.0
Hassayampa access road improvements	0.0	0.0	0.0	0.0	0.0
Headquarters fuel system replacement	1,003.0	42.3	0.0	0.0	0.0
Hydrology improvements at Centennial Wash	0.0	0.0	0.0	0.0	0.0
Industrial water treatment room at pumping plants	0.0	0.0	0.0	0.0	0.0
Maintenance building enclosures	422.8	0.0	0.0	0.0	0.0
MWP circuit breakers/compressed air system	1,492.1	3,911.8	0.0	0.0	0.0
Motor exciter/control unit replacement	2,718.8	2,780.1	1,793.9	59.3	0.0
Projects under \$250K	0.0	0.0	0.0	0.0	0.0
Reach 11 Dike 1 fence relocation	4.0	0.0	0.0	0.0	0.0
Server room and multi-function space	0.0	0.0	0.0	0.0	0.0
Siphon stop logs at Cunningham, Gila, Santa Cruz	62.7	0.0	0.0	0.0	0.0
South Central maintenance facility	14.6	0.0	0.0	0.0	0.0
South plants fire protection	2,761.7	3,710.0	1,156.0	0.0	0.0
Station service battery charger replacement	0.0	0.0	0.0	0.0	0.0
Sump pump water level controls at pumping plants	437.6	0.0	0.0	0.0	0.0
Superstition Mtn recharge drainage improvements	0.0	0.0	0.0	0.0	0.0
Transmission line rebuild ED2 to Saguaro	1,568.6	0.0	0.0	0.0	0.0
Trashrake installation at Mark Wilmer	0.0	0.0	0.0	0.0	0.0
Twin Peaks and Sandario HVAC replacement	2,165.0	42.2	0.0	0.0	0.0
UZ1B switchgear replacement at Waddell	0.0	0.0	0.0	0.0	0.0
Waddell computer control system replacement	0.0	0.0	0.0	0.0	0.0
Waddell governor controls replacement	1,227.1	0.0	0.0	0.0	0.0
Waddell River outlet works	0.0	0.0	0.0	0.0	0.0
West Plants bus disconnect switch replacement	328.4	0.0	0.0	0.0	0.0
<b>Total Capital Projects</b>	<b>\$ 22,548.2</b>	<b>\$ 12,863.7</b>	<b>\$ 7,312.0</b>	<b>\$ 4,305.3</b>	<b>\$ 18,975.0</b>
<b>Advisory Projects post-2017</b>					
Cathodic protection anode bed replacement	0.0	350.0	1,000.0	1,500.0	4,500.0
Condition-based monitoring phase 2	0.0	0.0	1,000.0	1,000.0	0.0
Discharge valves - Bouse/L. Harq/Hassayampa PP	0.0	0.0	0.0	2,000.0	4,000.0
Elevator system control/drive replacement phase 2	0.0	2,068.5	2,068.5	861.9	
Microwave radios	950.0	950.0	0.0	0.0	0.0
Mobile maintenance	0.0	1,500.0	1,500.0	0.0	0.0
Motor rewinds south plants	100.0	1,202.0	1,238.0	1,275.0	8,185.0
Opentext/Livelink replatforming	0.0	0.0	2,000.0	0.0	0.0
Transformer - McCullough	0.0	0.0	3,420.0	0.0	0.0
Transmission line rebuild Rattlesnake to Del Bac	0.0	0.0	200.0	2,000.0	14,800.0
Trash rakes - southern plants	200.0	1,000.0	1,000.0	6,000.0	11,800.0
Unbundle alarms, PLC I/O reliability optimization	0.0	679.1	679.1	56.6	0.0
Other capital projects	2,049.1	2,623.0	3,136.6	2,155.7	-
<b>Total Advisory Projects post-2017</b>	<b>3,299.1</b>	<b>10,372.6</b>	<b>17,242.2</b>	<b>16,849.2</b>	
<b>Total Capital Improvement Plan</b>	<b>25,847.3</b>	<b>23,236.3</b>	<b>24,554.2</b>	<b>21,154.5</b>	
<b>Capital Equipment</b>	<b>7,037.0</b>	<b>7,097.0</b>	<b>5,408.0</b>	<b>5,363.0</b>	
<b>Total Capital Budget</b>	<b>\$ 32,884.3</b>	<b>\$ 30,333.3</b>	<b>\$ 29,962.2</b>	<b>\$ 26,517.5</b>	

# CAPITAL EQUIPMENT SUMMARY

(Thousands)

	2016	2017	2018	2019	2020	2021
	Budget	Budget	Advisory	Advisory	Advisory	Advisory
<b>Capital Equipment</b>						
<b>Replacements</b>						
Access control upgrade	\$ 60.2	\$ 100.0				
Capacity upgrade on Cisco SONET system	60.0	-				
Circuit breakers racking system	210.4	15.0				
Computer servers	685.0	685.0				
Computer storage/system upgrade	2,101.5	72.5				
Control room floor replacement	8.0	8.0				
Cooling equipment	225.0	180.0				
CORS Station	30.0	25.0				
Discharge valves	100.0	-				
Domestic water filtomat	16.0	-				
Fork lift for weld shop	-	60.0				
Guard Shack - HQ replacement	50.0	-				
Roll bender	25.0	-				
Switchyard motor	75.0	75.0				
Utility vehicles (trucks)	392.3	337.2				
Vehicles (trucks/SUVs)	338.6	535.0	546.0	565.0	685.0	706.0
Computer, servers, equipment & software	-	-	3,250.0	3,255.0	1,150.0	1,350.0
Other equipment (\$15,000 and less)	22.0	8.0				
Field, communication & office equipment	-	-	3,241.0	3,277.0	3,573.0	3,307.0
<b>Total Replacements</b>	<b>\$ 4,399.0</b>	<b>\$ 2,100.7</b>	<b>\$ 7,037.0</b>	<b>\$ 7,097.0</b>	<b>\$ 5,408.0</b>	<b>\$ 5,363.0</b>
<b>Additions</b>						
Back hoe	183.5	-				
Fiber testing system	30.0	-				
Gas analyzer	27.5	-				
GPS base station pipes	20.0	20.0				
GPS for motor grader	-	150.0				
HOG work trailer	16.0	-				
Hytorc pneumatic torque wrench	34.0	-				
Lab volt simulators	-	49.4				
Loader	212.0	75.0				
Omicron relay test set	-	48.0				
Portable man lift	20.0	20.0				
PM system for Motorola radio	24.0	-				
Recharge pump	380.0	550.0				
Survey grade UAV	-	100.0				
Training trailer	60.0	-				
Vehicles (trucks/SUVs)	284.5	-				
Other equipment (\$15,000 and less)	116.5	20.0				
<b>Total Additions</b>	<b>\$ 1,408.0</b>	<b>\$ 1,032.4</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Capital Equipment</b>	<b>\$ 5,807.0</b>	<b>\$ 3,133.1</b>	<b>\$ 7,037.0</b>	<b>\$ 7,097.0</b>	<b>\$ 5,408.0</b>	<b>\$ 5,363.0</b>

# ANNUNCIATOR PANEL REPLACEMENT AT PUMPING PLANTS

**STRATEGY:** Effectively Manage, Operate and Maintain CAP Assets  
**KEY RESULT AREA:** Project Reliability  
**PROJECT #:** 610419

**START DATE:** 1<sup>st</sup> Quarter 2012  
**COMPLETION DATE:** 4<sup>th</sup> Quarter 2016  
**TOTAL PROJECT COST:** \$ 5,040,600  
**FUNDING SOURCE:** "Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 5,040.6	\$ 4,829.8	\$ 210.8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Replace the existing individual switchyard, pumping plant and pump unit annunciator panels with two master Human Machine Interfaces (HMI's). All plant, switchyard and pump unit data will be displayed by these large touch screen monitors, allowing plant personnel to view the status of the plant.

**JUSTIFICATION:** The existing annunciator panels and associated sensors have reached the end of their useful life and, due to the equipment's age, replacement parts are becoming very difficult to obtain. Replacement of the annunciators will decrease long-term maintenance costs and provide a substantial technology upgrade.

**OPERATING IMPACT:** This project lowers operating costs for replacing power supplies, system equipment and labor for trouble shooting, replacement and testing. New annunciator HMI's facilitate operation of pumping systems for plant personnel.

**SOCIAL IMPACT:** New annunciator panels will improve efficiency and reduce man-hours needed to monitor plant operations.

**ENVIRONMENTAL IMPACT:** No significant impact identified.



# APS TRANSMISSION LINE AND HASSAYAMPA TAP CONNECTION

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	4 <sup>th</sup> Quarter 2011
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>rd</sup> Quarter 2019
<b>PROJECT #:</b>	610321/610480/610505	<b>TOTAL PROJECT COST:</b>	\$ 45,100,100
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 45,100.1	\$ 21,685.1	\$ 4,391.9	\$ 15,072.0	\$ 5,419.6	\$ (1,468.5)	\$ -	\$ -	\$ -

**DESCRIPTION:**

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



	<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>Balance</i>
APS Transmission Line	\$ 29,054.6	\$ 20,310.1	\$ 651.9	\$ 5,962.4	\$ 2,130.2
HASS Tap Connection	16,045.5	1,375.0	3,740.0	9,109.6	1,820.9
	\$ 45,100.1	\$ 21,685.1	\$ 4,391.9	\$ 15,072.0	\$ 3,951.1

**JUSTIFICATION:**

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

**OPERATING IMPACT:**

This transmission line provides an alternate means of providing power to the CAP system, increasing CAP's ability to deliver water as needed. Transmission costs will decrease with a slight offset for ongoing maintenance costs.

**SOCIAL IMPACT:**

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

**ENVIRONMENTAL IMPACT:**

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

# AS-BUILT PUMPING PLANTS PHASE 2

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2003
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	3 <sup>rd</sup> Quarter 2016
<b>PROJECT #:</b>	610160	<b>TOTAL PROJECT COST:</b>	\$ 18,722,900
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 18,722.9	\$ 17,632.9	\$ 1,090.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Accurate and up-to-date as-built drawings are critical to achieve system reliability, safety and meet maintenance excellence objectives. The scope of this project includes a wire-by-wire verification to ensure that as-built drawings reflect what is installed. Final drawings incorporate changes that are used to troubleshoot and maintain the structures. To date, Salt Gila, Hassayampa, Bouse, Little Harquahala, Brawley, San Xavier, Brady, Picacho, Red Rock, Twin Peaks, Sandario, Snyder Hill, Black Mountain, Mark Wilmer and Waddell Switchyard are complete. This budget cycle addresses New Waddell Pump/Generating Plant and Dam.

**JUSTIFICATION:** Quality engineering and management practice mandates procedures and current as-built drawings to ensure that systems are operated and maintained in an efficient and consistent manner. This project redefines the contents of a complete set of drawings to meet the needs of all CAP departments. These drawings supersede previous drawings, convert all drawings to an electronic format and index all drawings to CAP's Enterprise Information Management System (Livelink).

**OPERATING IMPACT:** Drawings are utilized to plan and perform maintenance activities, asset modifications and capital projects. Accurate and readily available drawings minimize the likelihood of incurring costs from having to correct errors.

**SOCIAL IMPACT:** Accurate drawings of the pumping plant systems benefit CAP's workforce from an operational and safety standpoint.

**ENVIRONMENTAL IMPACT:** Improving the accuracy of CAP's pumping plant as-built drawings creates an efficient and reliable data source for operations and maintenance on the CAP system. The potential for unnecessary system outages and inefficient use of energy is reduced. Electronic storage also reduces the use of paper products.

# BACKUP POWER SYSTEM REPLACEMENTS AT CHECKS, TURNOUTS & MICROWAVE SITES

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>th</sup> Quarter 2019
<b>PROJECT #:</b>	610452	<b>TOTAL PROJECT COST:</b>	\$ 6,038,300
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 6,038.3	\$ 193.6	\$ 1,116.9	\$ 1,704.1	\$ 1,407.6	\$ 1,616.1	\$ -	\$ -	\$ -

**DESCRIPTION:** This project addresses CAP’s need for the replacement of backup power 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 120VDC to -48VDC. An integrated UPS system and DC power distribution are to replace the existing charges. This system incorporates all existing voltages and consolidate the power system to 24VDC. 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 require high levels of corrective maintenance.

**JUSTIFICATION:** Replacing the existing uninterruptible power supply (UPS) with an integrated 24VDC 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 and breakdown maintenance work to ensure continued operation.

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

**SOCIAL IMPACT:** This project increases 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.

# BRIDGE AT PIMA MINE ROAD RECHARGE PROJECT

<b>STRATEGY:</b>	Replenishment	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2013
<b>KEY RESULT AREA:</b>	Water Supply	<b>COMPLETION DATE:</b>	4 <sup>th</sup> Quarter 2016
<b>PROJECT #:</b>	610440	<b>TOTAL PROJECT COST:</b>	\$ 1,201,000
		<b>FUNDING SOURCE::</b>	Recharge/Cost Share

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 1,201.0	\$ 1,100.0	\$ 101.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** This project encompasses construction improvements to the bridge crossing the Santa Cruz River at the Pima Mine Road alignment. The Arizona Department of Transportation (ADOT) has found the bridge to be “structurally deficient” based on an October 2008 ADOT study. The town of Sahuarita is addressing this deficiency by upgrading the existing two-lane bridge to a four-lane bridge. Currently, CAP has a 24” diameter section of pipeline attached to the two-lane bridge. A new 36” pipeline will replace this section when the new bridge is constructed. This project is cost-shared 50/50 with Tucson.

**JUSTIFICATION:** Increasing the pipeline diameter will ensure maximum flow throughout the pipeline to downstream end users. Replacing the bridge pipeline will make all sections 36” diameter pipe, removing the current flow restrictions caused by moving water from the 36” section into 24-inch sections. CAP’s participation in the design and construction phases of this project will minimize impact to water use and canal operations.

**OPERATING IMPACT:** The larger pipeline will remove flow restrictions, which will increase the efficiency of moving water through the pipeline, reducing operating costs.

**SOCIAL IMPACT:** Construction of the new bridge will temporarily create a disruption in traffic flow and require an extended outage to build.

**ENVIRONMENTAL IMPACT:** Including the pipeline upgrade in the construction of the new bridge minimizes disturbance to the surrounding ecosystems.



# BUILDING 1 HVAC REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP ASSETS	<b>START DATE:</b>	1st Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4th Quarter 2017
<b>PROJECT #:</b>	610487	<b>TOTAL PROJECT COST:</b>	\$ 6,146,900
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 6,146.9	\$ 739.1	\$ 3,958.5	\$ 1,449.3	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Replacing and/or upgrading the Heating, Ventilating and Air Conditioning (HVAC) system will ensure that the functions of the CAP HQ Building 1 will continue as required. The efficacy, compatibility and energy savings of all HVAC equipment, piping, instrumentation and controls will be evaluated to include all equipment in the mechanical room, boiler, cooling tower and existing rooftop equipment. Based on that evaluation, equipment will be replaced or renovated. In addition to replacing the existing HVAC equipment, all abandoned wire and cable in the ceiling plenum will be removed, fire-stop sealing will occur where required and the existing Automated Logic Control system will be updated to integrate all new equipment.

**JUSTIFICATION:** The HVAC controls and equipment are beginning to fail and are becoming unreliable and replacement parts are no longer available. This aging equipment contributes to untimely, unmanageable and sometimes severe temperature swings. Many adjustments have to be made manually instead of using the control system. The equipment for the Supervisory Control and Data Acquisition (SCADA) system, CAPnet, MEnet and other valuable CAP systems require a cool environment to function.

**OPERATING IMPACT:** The work will be completed weeknights and weekends to cause the least amount of disturbance to staff. The mechanical room replacements will occur during the winter months to allow for free cooling. The new equipment will reduce CAP's operating costs for energy, reduce maintenance expenses and allow enhanced control of temperature conditions for all areas of HQ Building 1.

**SOCIAL IMPACT:** This will create a better working environment for CAP employees and visitors to CAP headquarters.

**ENVIRONMENTAL IMPACT:** New and efficient use of HVAC equipment will reduce energy use and cost.

# CENTRALIZED RELIABILITY INFORMATION MANAGEMENT SYSTEM

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP ASSETS	<b>START DATE:</b>	1st Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	3rd Quarter 2017
<b>PROJECT #:</b>	610503	<b>TOTAL PROJECT COST:</b>	\$ 500,000
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 500.0	\$ -	\$ 250.0	\$ 250.0	\$ -	\$ -	\$ -	\$ -	\$ -

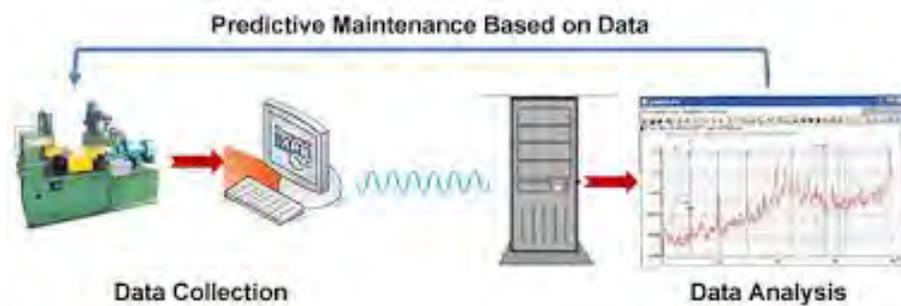
**DESCRIPTION:** The Centralized Reliability Information Management System, known as Systems Maintenance and Reliability Technology (SMART) addresses maximizing maintenance-related data integrity while minimizing data redundancy. SMART analyzes and benchmarks software systems and methodologies against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

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

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

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

**ENVIRONMENTAL IMPACT:** Implementing SMART will assist in reducing unexpected system failures and the chance of an ancillary damage occurrence such as a canal breach.



# CHLORINATION SYSTEM REPLACEMENT AT 10 PUMPING PLANTS

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1st Quarter 2015
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	2nd Quarter 2018
<b>PROJECT #:</b>	610449	<b>TOTAL PROJECT COST:</b>	\$ 1,949,500
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 1,949.5	\$ 36.4	\$ 444.1	\$ 1,416.3	\$ 52.7	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** This project replaces the pellet chlorinators system-wide, with a liquid chlorination skid. Maintenance Engineering has reported that the existing pellet chlorinators are oversized with installations that do not maintain necessary residuals to limit bacterial growth. Adequate chlorination is an effective water treatment for nuisance organisms, including quagga mussels. Plants requiring the new liquid chlorination skid are Mark Wilmer, Bouse, Little Harquahala, Hassayampa, Waddell, San Xavier, Twin Peaks, Sandario, Snyder Hill and Black Mountain. The chlorine systems presently maintain minimal levels of chlorine in the service water system with higher doses of chlorine for the heat exchangers during unit shut down. The proposed liquid chlorination system is a stand-alone skid which includes required pumps and mixing tanks. Components of the skid are a unit-cooling water chlorination pump, service water chlorination metering pump, and concentrated and dilute sodium hypochlorite tanks and mixers. If feasible, the chlorination skid may also replace the function of the potable water chlorine element pump. This replacement will streamline chlorine systems and reduce overall liquid chlorine maintenance. Skid containment and drum transfer pumps, as well as system flowmeters, will also be provided.

**JUSTIFICATION:** Chlorination systems are critical to pump equipment and for reliable delivery of water.

**OPERATING IMPACT:** The new equipment will decrease maintenance costs associated with breakdown or corrective maintenance work.

**SOCIAL IMPACT:** The new system protects critical pumping systems by limiting growth of nuisance organisms and decreases risk of pump downtime.

**ENVIRONMENTAL IMPACT:** This system provides a water treatment system for pump motor service water.

# COMMUNICATION CABLE REPLACEMENT PHASE 5

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1st Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4th Quarter 2017
<b>PROJECT #:</b>	610173	<b>TOTAL PROJECT COST:</b>	\$1,872,000
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,872.0	\$ -	\$ 283.2	\$ 1,588.8	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** The communication cable replacement project consists of installing fiber-optic (FO) cable in conduit along the right-of-way from Bouse to the Terminus. The new FO cable will replace a deteriorating system that supports data and voice communications. Phases 1 through 4 have been completed in previous budget years. Phase 5 is the installation of new cable in the final 15 miles from Black Mountain to Terminus.

**JUSTIFICATION:** Technological advances, poor performance of the existing system and the operational requirement for new communication cable led to the proposed Bouse to Terminus Fiber-Optics project. The existing metallic cable communication system has a much slower data throughput speed than FO. Replacing the metallic cable with FO prepares us for future growth, higher bandwidth capacity and improvements to existing technology.

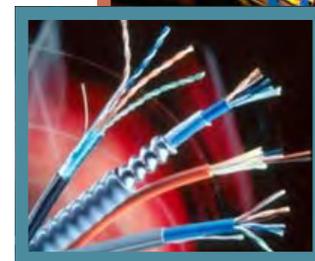


**OPERATING IMPACT:** Data transfer is faster and more reliable over FO cable which improves network bandwidth and performance of the SCADA system.

**SOCIAL IMPACT:** The new fiber-optic system will increase communication capability along the CAP canal which increases the reliability of water deliveries to customers.



**ENVIRONMENTAL IMPACT:** The installation of the fiber-optic is across several Indian communities. CAWCD's easements are within the Pasqua Yaqui lands and San Xavier District of the Tohono O'odham Nation. A recent internal guidance document, "Environmental Instruction Tribal Lands," developed by the Environmental department, will be used for CAWCD's outreach and work with the tribes.



# CONDITION-BASED MONITORING

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1st Quarter 2012
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4th Quarter 2017
<b>PROJECT #:</b>	610317	<b>TOTAL PROJECT COST:</b>	\$ 7,902,000
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 7,902.0	\$ 5,148.1	\$ 1,713.0	\$ 1,040.9	\$ -	\$ -	\$ -	\$ -	\$ -

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

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

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

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

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



# DIGITAL ASSET MANAGEMENT SYSTEM

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	3rd Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	2nd Quarter 2017
<b>PROJECT #:</b>	610504	<b>TOTAL PROJECT COST:</b>	\$835,000
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 835.0	\$ -	\$ 585.0	\$ 250.0	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** A digital asset management (DAM) system sets the protocol for downloading, renaming, backing up, rating, grouping, optimizing, maintaining, thinning, exporting and archiving files. Livelink, CAP's current content management system (CMS) doesn't allow for migrating digital media to the central repository. Installation of a DAM system will provide the capability to manage and deliver images, video and other content to any screen or device.

**JUSTIFICATION:** Born-digital media is inextricably bound with daily business functions and the volume will continue to increase. Additionally, current and future digitization projects are stymied by existing system limitations in terms of storage and access; conversion to digital formats provides remote and local employees with the same degree of access to the information. Migrating digital managing of a large collection of images, videos or documents improves efficiency by helping employees quickly find what they need on their own. A DAM will empower employees to convert files into the desired format, without purchasing additional desktop software, hardware and media for this central repository. The DAM system has processing capabilities not available in CMS.

**OPERATING IMPACT:** CAP will have internal integrations with other Enterprise applications, and sensitive media files will remain within the network. Increased demand for digital images and videos, coupled with the commissioning of image links, requires a solution to the ingestion, access and streaming issues currently affecting CAP.

**SOCIAL IMPACT:** Employees would need to learn how to use a new application. Additional system training will be required to improve efficiencies in utilizing the application and search functions.

**ENVIRONMENTAL IMPACT:** No significant environmental impact identified.

# DISCHARGE VALVE REPLACEMENT AT PUMPING PLANTS

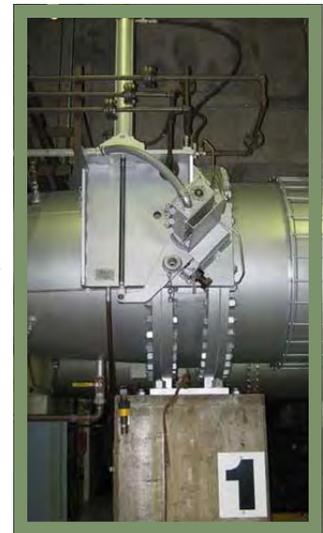
<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE</b>	4 <sup>th</sup> Quarter 2013
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2018
<b>PROJECT #:</b>	610445 and 610453	<b>TOTAL PROJECT COST:</b>	\$ 5,793,800
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 5,793.8	\$ 3,169.2	\$ 1,343.1	\$ 1,241.5	\$ 40.0	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:**

Unit check valves at Black Mountain and Snyder Hill are malfunctioning, resulting in reverse flow through pump units. The check valves are obsolete and the original equipment manufacturer (OEM) is not available for support. Likewise, the unit inlet and discharge valves do not seat correctly which leads to leaking. Unit discharge valves at Brady, Picacho and Red Rock do not meet equipment lifetime expectations. The recommended design of the replacement valves have a triple-eccentric seat design. This design provides for a larger effective area for energy dissipation and lowers the fluid velocities within the valve. Lower fluid velocities will decrease flow-accelerated corrosion of the valve body, one of the main causes of the decreased life span of the current discharge valves.



	<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>Balance</i>
Black Mtn/Snyder Hill	\$ 3,300.2	\$ 2,858.1	\$ 442.1	\$ -	\$ -
Brady/Picacho & Red Rock	2,493.6	311.1	901.0	1,241.5	40.0
	\$ 5,793.8	\$ 3,169.2	\$ 1,343.1	\$ 1,241.5	\$ 40.0

**JUSTIFICATION:**

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

**OPERATING IMPACT:**

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

**SOCIAL IMPACT:**

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

**ENVIRONMENTAL IMPACT:**

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

# ELECTROMECHANICAL RELAY REPLACEMENT

## PHASE I

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

**START DATE:** 1<sup>st</sup> Quarter 2016  
**COMPLETION DATE:** 4<sup>th</sup> Quarter 2027  
**TOTAL PROJECT COST:** \$ 33,715,000  
**FUNDING SOURCE:** "Big R"

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

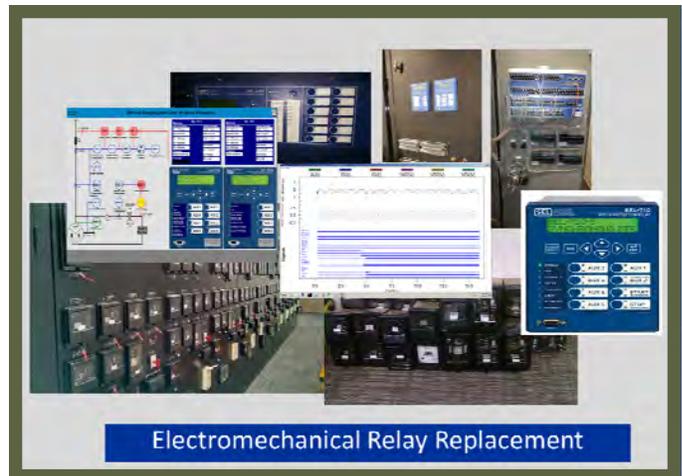
	Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$	33,715.0	\$ -	\$ 969.7	\$ 1,510.7	\$ 1,421.9	\$ 2,229.6	\$ 4,362.1	\$ 4,246.0	\$ 18,975.0

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

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

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

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



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

# ELEVATOR SYSTEM CONTROL/DRIVE REPLACEMENT

**STRATEGY:** Effectively Manage, Operate and Maintain CAP Assets  
**KEY RESULT AREA:** Project Reliability  
**PROJECT #:** 610455

**START DATE:** 1<sup>st</sup> Quarter 2014  
**COMPLETION DATE:** 1<sup>st</sup> Quarter 2017  
**TOTAL PROJECT COST:** \$ 3,671,500  
**FUNDING SOURCE:** "Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 3,671.5	\$ 1,790.4	\$ 1,817.2	\$ 63.9	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Replace elevator controls and equipment as required to support the new control systems at all plants and at headquarters. The work will be prioritized based on current conditions of the elevator controls per facility. Useable parts from the first upgrades will be salvaged and maintained as inventory to perform repairs at the other locations until such time as they are upgraded within this project.

**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 are not sufficient to meet reliability requirements.

**OPERATING IMPACT:** The new elevator control system will provide improved reliability and improved functionality with other plant systems such as the fire protection/alarm system.

**SOCIAL IMPACT:** The new elevator controls and equipment will safely transport CAP personnel, equipment, materials, tools and visitors between floors.

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



# EMERGENCY PUBLIC ADDRESS SYSTEM AT HQ

<b>STRATEGY:</b>	Managing our Workforce	<b>START DATE</b>	1 <sup>st</sup> Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	3 <sup>rd</sup> Quarter 2016
<b>PROJECT #:</b>	610410	<b>TOTAL PROJECT COST:</b>	\$ 1,720,500
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,720.5	\$ 1,005.1	\$ 715.4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** This project is an upgrade to the existing fire alarm system at headquarters, including buildings 1, 2, 3, 6 (helicopter hangar) and 8 (service station). An emergency public address system will be an integral part of the fire alarm system. With the upgraded system, employees will be able to hear real-time voice announcements from the speakers with critical information and concise directions during emergencies throughout the CAP Headquarters' property.

**JUSTIFICATION:** To help protect employees during an emergency situation, CAP needs to have an effective emergency public address system that allows communication with employees. The current system utilizes the fire alarms only. The new system will allow for immediate notification of emergency procedures to be implemented, including evacuation routes, in such events as building shutdowns, terrorist threats, bomb scares or critical traffic situations.

**OPERATING IMPACT:** No significant impact to ongoing operations.

**SOCIAL IMPACT:** CAP employees, vendors and the public will benefit from communication in the event of an emergency situation. Understanding the emergency creates a calmer, more coordinated evacuation of affected areas.

**ENVIRONMENTAL IMPACT:** No significant environmental impact identified.



# ENTERPRISE PROJECT MANAGEMENT SYSTEM

**STRATEGY:** Effectively Manage, Operate and Maintain CAP Assets  
**KEY RESULT AREA:** Project Reliability  
**PROJECT #:** 610456

**START DATE:** 1st Quarter 2014  
**COMPLETION DATE:** 2nd Quarter 2016  
**TOTAL PROJECT COST:** \$ 276,300  
**FUNDING SOURCE:** "Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 276.3	\$ 116.3	\$ 160.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** An enterprise project management (PM) software system will be chosen based on functional and technical requirements. Once an application and consultant are chosen, IT will purchase and configure an additional Windows server. Then the consultant will install the PM application and configure it to meet defined functional requirements. The consultant will also develop the necessary integrations with other enterprise applications with assistance from IT's developers and administrators. At the same time, IT will work closely with CAP departments to design processes to enter and maintain data and test the application. Server administrators will also plan for disaster recovery (backup scheduling and recovery) and patching of the new system.



**JUSTIFICATION:** An abundance of a project manager's time is spent completing manual, administrative tasks, manipulating and entering data in spreadsheets and manually tracking each phase of a project. The project teams' core responsibilities are to actively communicate with other departments and deliver projects in accordance with CAP requirements and processes. An enterprise project management tool is needed to assist in tracking projects while allowing the project managers more time to coordinate interdepartmentally and externally.

**OPERATING IMPACT:** This will allow project teams to reduce the time spent on administrative issues and to focus on the construction work and the completion of the project. It will improve coordination of data and information relative to project delivery reducing risk of outage extensions and improving labor utilization.

**SOCIAL IMPACT:** This system will allow project teams to improve communication and management of project budget, scope and schedule, and it enhances reporting capabilities to CAP's PSC and Board.

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

# FLOWMETER REPLACEMENT PHASE 2

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2011
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	2 <sup>nd</sup> Quarter 2016
<b>PROJECT #:</b>	610459	<b>TOTAL PROJECT COST:</b>	\$ 482,900
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 482.9	\$ 348.0	\$ 134.9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** The project will install flowmeters chosen for their technology and best fit with CAP’s water systems. As part of the project, CAP standard flowmeter drawings will be developed and used for installation and as-built use.

**JUSTIFICATION:** Turnout flowmeters are used for reporting water deliveries, but their primary use is for water control through the SCADA system. Mark Wilmer and Waddell flowmeters also measure the diversions from the Colorado River and storage and releases from Lake Pleasant, respectively. The CAP meter system must be well managed to assure delivery information is reported accurately, which will then ensure that customers are invoiced correctly and resources are optimized. The Accusonic model 7500 and 7520 flowmeters are utilized at 26 different pumping plants and turnouts. These models have been identified as obsolete and are no longer supported by the manufacturer.



**OPERATING IMPACT:** Flowmeters must be accurate and well maintained to assure optimized billing and resource management.

**SOCIAL IMPACT:** Proper scheduling will minimize any disruption in CAP operations. Updated equipment provides increased accuracy in the reporting of water deliveries to CAP customers ensuring correct invoicing and delivery information.

**ENVIRONMENTAL IMPACT:** New flowmeters will improve energy efficiency.



# HASSAYAMPA ACCESS ROAD IMPROVEMENTS

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	2nd Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4th Quarter 2017
<b>PROJECT #:</b>	610501	<b>TOTAL PROJECT COST:</b>	\$ 556,600
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 556.6	\$ -	\$ 123.2	\$ 433.4	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Relocate the existing access road away from erosion area; this includes construction of approximately 1,750 feet of a new access road with a "V" ditch on both sides. The security fence will be relocated. In order to minimize the impact of runoff upstream a channel will be constructed.

**JUSTIFICATION:** Overland runoff from the east poses a risk to stability of the road and pumping plant access for Hassayampa. The erosion has extended to 20 feet from the roadway and is a minimum depth of 30 feet.

**OPERATING IMPACT:** This access road is required during mobilization of heavy equipment; this is the preferred maintenance access for the pumping plant.

**SOCIAL IMPACT:** The relocation of the access road will allow CAP employees safe work access and mobilization of heavy equipment.

**ENVIRONMENTAL IMPACT:** The relocation of the access road may disturb desert plants. Relocation of native desert plants will be completed to comply with the Arizona Native Plant Law.



# HEADQUARTERS FUEL SYSTEM REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	3rd Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4th Quarter 2019
<b>PROJECT #:</b>	610496	<b>TOTAL PROJECT COST:</b>	\$ 1,355,900
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,355.9	\$ -	\$ 58.8	\$ 251.8	\$ 1,003.0	\$ 42.3	\$ -	\$ -	\$ -

**DESCRIPTION:**

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

The existing fuel systems have a number of deficiencies. HQ Maintenance, Reliability Engineering, Safety & Environmental and Engineering Resources partnered with Applied Engineering, an environmental consultant, to assess the magnitude of these deficiencies. Applied Engineering performed an evaluation of the fueling infrastructure. Both systems have the following deficiencies:



fuel delivery not per code; no spill catch basin at fill nozzle; no check valve in fill piping; no return pump in overspill basin; and no overflow alarm system in tank.

**JUSTIFICATION:**

Address the following major deficiencies:  
Unleaded Fuel System: (1) concrete containment vault not water tight; (2) overflow protection equipment not functional; (3) no annular space emergency vent; (4) vapor sensing is in the wrong location; and (5) no liquid sump sensor.  
Diesel Fuel System: (1) paint failure on top of tank; (2) no code required interstitial space leak sensor; (3) emergency shutdown disconnect not per code; and (4) existing tank is not compliant with present IFC/City of Phoenix requirements for a UL2085 tank – replacement required.

**OPERATING IMPACT:**

Replacement parts will be available, and code and safety violations would be resolved. There would be fuel on site during a disaster or fuel shortage. Diesel fuel on site acts as a backup storage for the generator which is the backup power source for the control center.

**SOCIAL IMPACT:**

Retraining of employees due to new monitoring equipment and maintenance procedures. Employee safety improved with properly designed emergency shut off and emergency monitoring/alarm system.

**ENVIRONMENTAL IMPACT:**

New equipment and monitoring will limit risk potential.

# HYDROLOGY IMPROVEMENTS AT CENTENNIAL WASH

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2015
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2017
<b>PROJECT #:</b>	610448	<b>TOTAL PROJECT COST:</b>	\$ 1,733,300
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 1,733.3	\$ 326.0	\$ 1,378.5	\$ 28.8	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** This project will include design and construction of enhancements to Dike 2 embankment of Pool 6 at Centennial Wash. A previous engineering study evaluated the hydrology of the area and concluded that more drainage was directed to the area above the dike than the original Bureau of Reclamation (BOR) design. This project will raise the dike elevation to protect the canal from the 100-year 24-hour storm. The dike is currently drained by two 36-inch overshoot pipes, and this project plan will increase that capacity and reduce the associated detention times behind the dike by adding four additional pipes over the canal to increase drain time.

**JUSTIFICATION:** Dike 2 was nearly overtopped in a large storm in 2000 and again in 2010 and the insufficient height of the dike was obvious. Increasing the height of the dike was determined to be a necessity, and a study was undertaken to determine any additional improvements that must be constructed to provide a sufficient level of protection for the CAP canal. This project is necessary to protect the canal from the dike failing and potentially breaching the canal.

**OPERATING IMPACT:** The dike embankment provides critical protection to the CAP canal from flood waters in Centennial Wash. Flooding risks include dike and concrete liner damage as well as debris and sediment in the siphon.

**SOCIAL IMPACT:** This construction will mitigate flooding issues. Flooding into the canal can cause delay in water deliveries due to repair outages as well as negatively impacting water quality for downstream customers. Flood waters entering CAP's aqueduct decrease CAP water quality.

**ENVIRONMENTAL IMPACT:** After construction is finished, the surrounding area will be returned to the natural desert environment.

# INDUSTRIAL WATER TREATMENT AT PUMPING PLANTS

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	3 <sup>rd</sup> Quarter 2017
<b>PROJECT #:</b>	610466	<b>TOTAL PROJECT COST:</b>	\$ 2,611,600
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 2,611.6	\$ 536.8	\$ 990.1	\$ 1,084.7	\$ -	\$ -	\$ -	\$ -	\$ -

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



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

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

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

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

# MAINTENANCE BUILDING ENCLOSURES

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	3rd Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	2nd Quarter 2018
<b>PROJECT #:</b>	610492	<b>TOTAL PROJECT COST:</b>	\$ 1,141,600
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,141.6	\$ -	\$ 32.6	\$ 686.2	\$ 422.8	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:**

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



**JUSTIFICATION:**

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

**OPERATING IMPACT:**

This construction will assist in mitigating accumulation of dust that can reach into critical areas during assembly of valves and pumps in the work areas. Scheduling for the project is based upon machine shop operations non-critical periods.

**SOCIAL IMPACT:**

Immediate benefits to employees’ safety and health environment will occur with the enclosure project. Equipment such as the water jet machine will be internally located, removing employees from direct heat exposure and wildlife. By eliminating bird carcasses and droppings from the water tanks, it will reduce the potential for bacterial, fungal, viral and parasitic health issues.

**ENVIRONMENTAL IMPACT:**

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

# MARK WILMER CIRCUIT BREAKERS AND COMPRESSED AIR SYSTEM REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1st Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4th Quarter 2019
<b>PROJECT #:</b>	610499	<b>TOTAL PROJECT COST:</b>	\$ 9,331,100
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 9,331.1	\$ -	\$ 1,031.5	\$ 2,895.7	\$ 1,492.1	\$ 3,911.8	\$ -	\$ -	\$ -

**DESCRIPTION:** The work will include project management, engineering, procurement, demolition and installation of both the temporary replacement for the Air-Blast Circuit Breaker Compressed Air System and the new Circuit Breakers for all six units at Mark Wilmer. Phase 1: Replace the Air-Blast Circuit Breaker Compressed Air System (Summer 2016); Phase 2: Replace the existing Air-Blast breakers with new insulated Circuit-Breakers (CB) - Summer Outages of 2017, 2018 and 2019.

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



**OPERATING IMPACT:** The construction will be synchronized with planned outages for unit project managers and cavitation repairs schedule. There will be lower maintenance requirements and long term availability of spare parts.

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

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

# MOTOR EXCITER AND CONTROL UNIT REPLACEMENT AT PUMPING PLANTS

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	4 <sup>th</sup> Quarter 2012
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2021
<b>PROJECT #:</b>	610420 /610458/610465	<b>TOTAL PROJECT COST:</b>	\$ 14,918,800
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 14,918.8	\$ 1,432.8	\$ 3,069.4	\$ 3,064.5	\$ 2,718.8	\$ 2,780.1	\$ 1,793.9	\$ 59.3	\$ -

**DESCRIPTION:** This project replaces the existing pump motor brushless exciters with brushless, three-phase, exciter generators and rotating exciter wheel/electronics. It replaces the existing exciter voltage regulator and protection relays with the integrated electronic exciter controllers that are utilized at Brawley and San Xavier. The project scope is the replacement of the static exciters with modern equivalents. The upgraded digital exciter system will also provide an excitation controller and convection cooled rectifier bridge assembly. It will be mounted, wired and tested in a NEMA 1 Control/ Rectifying cubicle and wired to the existing transformer. The excitation digital controller will provide voltage regulation, true RMS sensing, power factor control, dual-settings groups and additional features.

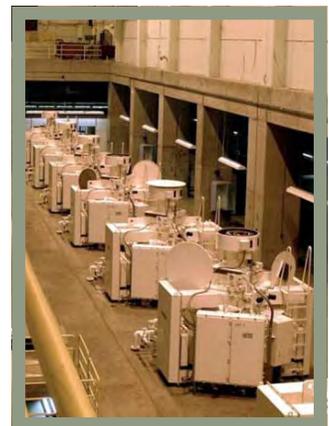
**JUSTIFICATION:** The exciters and controls are obsolete and failing, and are at the end of their operational life. The original manufacturer is no longer in business; therefore, support is no longer available.

	<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>Balance</i>
Brady/Picacho & Red Rock	\$ 4,936.7	\$ 1,137.3	\$ 902.9	\$ 967.9	\$ 1,928.6
West Pumping Plants	7,424.9	-	-	2,001.4	5,423.5
Waddell	2,557.2	295.5	2,166.5	95.2	-
	<u>\$ 14,918.8</u>	<u>\$ 1,432.8</u>	<u>\$ 3,069.4</u>	<u>\$ 3,064.5</u>	<u>\$ 7,352.1</u>

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

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

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



# PROJECTS UNDER \$250,000

<b>STRATEGY:</b>	Effectively Operate and Maintain the System	<b>START DATE:</b>	Various
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	Various
<b>PROJECT #:</b>	Various	<b>TOTAL PROJECT COST:</b>	N/A
		<b>FUNDING SOURCE:</b>	"Big R"

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

**DESCRIPTION:** Projects under \$250,000 fall below the PSC formal review and approval process, but are monitored for budget purposes. The following are some of the projects that fall under this category:

	2016	2017
Engineering Mini Projects	\$ 466.2	\$ 345.6
HQ Barricade Operators and Gates		
Road Replacement at Sandario Entrance		
Brawley/San Xavier Bathrooms Remodel		
IT Mini Projects	250.0	250.0
<b>Total</b>	<b>\$ 716.2</b>	<b>\$ 595.6</b>

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

**OPERATING IMPACT:** Individually Considered

**SOCIAL IMPACT:** Individually Considered

**ENVIRONMENTAL IMPACT:** Individually Considered

# REACH 11 DIKE 1 FENCE RELOCATION

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	3rd Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1st Quarter 2018
<b>PROJECT #:</b>	610495	<b>TOTAL PROJECT COST:</b>	\$ 834,300
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 834.3	\$ -	\$ 115.2	\$ 715.1	\$ 4.0	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** This project will install approximately 22,000 linear feet of security fencing at Reach 11, Dike 1 (Cave Creek to Tatum) along the northern edge of the dike crest (canal left), with all existing CAP survey markers being located inside the new security fence.

**JUSTIFICATION:** Due to the occurrence of erosion near the original installation of the security fencing, maintenance personnel have become restricted to the side of the slopes. Over time the erosion along the dike has worn down both the bottom and top halves. CAP maintenance personnel have difficulties accessing the top of the dike with heavy equipment, gate access is limited and when permissive, the slope's gradient of the top half becomes too hazardous to safely maneuver equipment.



**OPERATING IMPACT:** Relocation of the new security fence will provide CAP employees with safe work access and mobilization of heavy equipment.

**SOCIAL IMPACT:** The security fence relocation allows maintenance team members the ability to focus and perform the necessary tasks in a safe work environment.

**ENVIRONMENTAL IMPACT:** No significant environmental impact identified.

# SERVER ROOM AND MULTI-FUNCTION SPACE

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	3 <sup>rd</sup> Quarter 2016
<b>PROJECT #:</b>	610450	<b>TOTAL PROJECT COST:</b>	\$ 6,700,500
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 6,700.5	\$ 4,954.6	\$ 1,745.9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** **Server Room:** The current building infrastructure is not able to provide additional capacity needed for future growth. IT estimates CAP's information systems will continue to grow 30-80% each year. A space study indicated the existing Board Room would be a desirable location to build a new Server Room due to the ease of access to commercial power and carrier circuits.

**Multi-function Space:** The existing Board Room has a maximum size constraint of 125 persons and is lacking in the technology/infrastructure that is needed to properly broadcast the meetings to the general public. The space study cited the unused cafeteria and under-utilized conference room space in Building 2 as a suitable location for a new multi-function space; a portion of which will serve as the new Board Room. It then creates the opportunity to relocate the Server Room into the existing Board Room; this promotes CAP's long-term growth objectives for both capacity and technology. Construction on both areas would not be complex, with HVAC/Electrical distribution upgrades and displacement of employees minimal.

**JUSTIFICATION:** As CAP Headquarters ages, long-term planning is required to address space/infrastructure issues. Technology is used to support all employee activities, and almost all projects have network connectivity, server, storage or IT security requirements. Utilizing the existing Board Room space and creating a multi-function area allows for the future growth and long term objectives of CAP.

**OPERATING IMPACT:** The expanded server space will add to CAP's ability to provide up-to-date technology to its users. The new multi-function space allows more efficient use of CAP's existing buildings for Board meetings and other public meetings.

**SOCIAL IMPACT:** The larger multi-functional space will allow more of CAP's constituents to attend the Board and public meetings.

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

# SIPHON STOP LOGS AT CUNNINGHAM, GILA, SANTA CRUZ

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2018
<b>PROJECT #:</b>	610502	<b>TOTAL PROJECT COST:</b>	\$ 2,616,600
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 2,616.6	\$ -	\$ 434.0	\$ 2,119.9	\$ 62.7	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Bubble-logs allow CAP personnel and equipment to enter the siphon and in cases of an emergency, the ability of evacuation. This project will add stop log guides to the outlets of the Cunningham Wash, Gila River and Santa Cruz River Siphons; it includes design and construction of the guides and stop logs. New stop logs for three siphons, will include bubble-logs and lifting beams to be installed at the Centennial Wash Siphon Outlet and the southern end Waddell siphon. Currently, no means of access exists for the southern end Waddell siphon.

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

**OPERATING IMPACT:** This project will be completed at each siphon during times that water operations is capable of reducing the canal flow. Alternative options for isolating the siphons while viable, are also subsequently more risky, costly and increase downtime to dewater the siphon.

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

**ENVIRONMENTAL IMPACT:** No significant environmental impact identified.



# SOUTH CENTRAL MAINTENANCE FACILITY

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1st Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	2nd Quarter 2018
<b>PROJECT #:</b>	610493	<b>TOTAL PROJECT COST:</b>	\$ 1,014,900
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,014.9	\$ -	\$ 443.3	\$ 557.0	\$ 14.6	\$ -	\$ -	\$ -	\$ -

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

The creation of an SGL facility for maintenance will remove several major areas of inefficiencies encountered by the SGL maintenance crew.



**JUSTIFICATION:** The acquisition of a facility (approximately 60'x100') will eliminate numerous deficiencies confronted on a daily basis by the maintenance crew, equipment and fleet service maintenance. Tools and equipment/vehicles will no longer be kept outside in large lockable storage containers, with larger equipment merely locked in a fenced area. Fleet service maintenance will be able to properly perform on-site service, doing away with having to transport the equipment back to CAP headquarters. The facility will permit the ability of using a lift to load/unload the equipment which is more efficient and less risk to potential injury.

**OPERATING IMPACT:** AMSC supports over 70 miles of CAP aqueduct, and currently assemble at the most upstream area. Positioning the facility in a more centralized location will promote decreases in travel time. Relocating equipment into a permanent facility will also yield CAP employees a safer work access area, improve operational availability and effective mobilization of heavy equipment.

**SOCIAL IMPACT:** Since 2005, there have been twelve reported burglaries with an average estimated loss of \$12,000 per year. The new facility will deter such criminal acts, safeguarding assets against unauthorized use and theft of assets.

**ENVIRONMENTAL IMPACT:** No significant environmental impact identified.

# SOUTH PLANTS FIRE PROTECTION

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2017
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>th</sup> Quarter 2020
<b>PROJECT #:</b>	610491	<b>TOTAL PROJECT COST:</b>	\$ 8,146,400
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 8,146.4	\$ -	\$ -	\$ 518.7	\$ 2,761.7	\$ 3,710.0	\$ 1,156.0	\$ -	\$ -

**DESCRIPTION:** The Fire Protection Systems at all plants along the CAP have been subject to assessment and replacement over the past ten years. This project focus is on two typical plant designs between five plants: Brady, Picacho, Red Rock, Snyder Hill and Black Mountain. At the time of construction, these plants met the applicable Reclamation Fire Protection Design guides and code requirements. However, any modification to an existing system requires updating to current CAP Fire Protection Philosophy design guides, applicable building and National Fire Protection Association (NFPA) codes and standards. There are four aspects of the CAP Fire Protection Philosophy: Life Safety, Continuity of Service, Protection of Property, and Environmental. Due to the obsolete fire alarm and detection equipment, the lack of egress meeting current NFPA 101 Life Safety Code prescriptive requirements, and the need to replace current fire suppression systems, the Engineering Department is completing a performance-based design in order to assess modification requirements for life safety and egress from the pumping plants as well as an assessment of the remainder of the fire protection systems needed for continuity of service and protection of CAP property. These five plants currently have the following equipment maintenance issues that require replacement: obsolete detection equipment, notification equipment, clean agent control panels and degraded fire protection pumps.

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



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

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

**ENVIRONMENTAL IMPACT:** Proper fire detection and suppression assists in guarding against the occurrence of a fire event.

# STATION SERVICE BATTERY CHARGER REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1st Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	2nd Quarter 2016
<b>PROJECT #:</b>	610469	<b>TOTAL PROJECT COST:</b>	\$1,602,400
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 1,602.4	\$ 1,500.9	\$ 101.5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** The scope of this project is to replace the station service battery chargers, the individual protection and metering devices with a single integrated protection metering device in all CAP plants. All components of the new system will include a communication capability (e.g., SCADA) system. The system consists of two redundant battery charger/eliminators and a single metering protection device. Because the chargers are redundant, the system can remain in service while the equipment is replaced.

**JUSTIFICATION:** The battery chargers, metering and protection system equipment should be replaced prior to the end of their life span. The system is near the point at which obtaining replacement parts is not possible. This project will upgrade the battery chargers and the metering and protection equipment to safely operate the plants. The new system will provide more functionality than is now available, including battery monitoring and communication with the SCADA system.

**OPERATING IMPACT:** The replacement of the station batteries will have minimal operating impact during the construction phase. Overall, the station service battery system is required for reliable plant operations in the event of a power failure.

**SOCIAL IMPACT:** Replacing the battery system will reduce the risk of interruption to station service power allowing continued deliveries to customers.

**ENVIRONMENTAL IMPACT:** A new battery system optimizes energy utilization.

# SUMP PUMP WATER LEVEL CONTROLS AT PUMPING PLANTS

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2015
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2018
<b>PROJECT #:</b>	610473	<b>TOTAL PROJECT COST:</b>	\$ 1,392,200
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 1,392.2	\$ 107.0	\$ 273.9	\$ 573.7	\$ 437.6	\$ -	\$ -	\$ -	\$ -

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

**JUSTIFICATION:** Existing equipment is obsolete.

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

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

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

# SUPERSTITION MOUNTAIN RECHARGE PROJECT DRAINAGE IMPROVEMENTS

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	3 <sup>rd</sup> Quarter 2017
<b>PROJECT #:</b>	610474	<b>TOTAL PROJECT COST:</b>	\$ 2,835,100
		<b>FUNDING SOURCE:</b>	Recharge

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 2,835.1	\$ 146.8	\$ 2,629.3	\$ 59.0	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Superstition Mountain Recharge Project (SMRP) became operational in July 2011. Consists of two basins totaling approximately 40 acres and is constructed solely on BOR land. This project will improve existing basins at SMRP which are currently experiencing drainage and erosion issues which impact the operation of the basins. The site, requires a pump station that lifts water over Sonoqui Dike for delivery into the basins. The pump stations will contain variable speed pumps, mounted over the canal on a bridge to be constructed as part of the project. Through pressurized pipe, the water is conveyed to the basin inlet structures, where motor operated valves will control the flow into the basins.



**JUSTIFICATION:** Eroding soils have caused the basin to become less porous by depositing silty material on the floor, thereby shrinking surface area and recharge capacity. These silty deposits, in order to achieve percolation rates, have caused additional maintenance costs. Rill channels caused by this erosion are problematic to detect posing a safety hazard to vehicle operators predominantly during weed control activities. This project will greatly reduce the rate of basin floor shrinkage, maintaining recharge capacity, while decreasing maintenance costs and the safety risks to the employees.

**OPERATING IMPACT:** Reduce the additional operational costs in order to achieve percolation rates and increase the capacity for recharge.

**SOCIAL IMPACT:** Groundwater recharge sites are critical to managing the groundwater recharge project aiding groundwater users and aquifer replenishment.

**ENVIRONMENTAL IMPACT:** The surrounding areas will be returned to the original desert environment. The aquifer will be replenished.

# TRANSMISSION LINE REBUILD ED2 TO SAGUARO

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	4 <sup>th</sup> Quarter 2013
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2018
<b>PROJECT #:</b>	610475	<b>TOTAL PROJECT COST:</b>	\$ 11,015,000
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 11,015.0	\$ 5,125.0	\$ 2,170.0	\$ 2,151.4	\$ 1,568.6	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** The ED2-Saguaro (ED2-SGR) transmission line is located in southern Arizona just south of the city of Casa Grande. The line was constructed in 1984 and extends for 35.6 miles from the Electrical District 2 (ED2) Substation to Saguaro Switchyard. The line operates at 115-kV and supplies power to three pumping stations along its route. This transmission line has experienced four major failures over the past three years which is responsible for bringing down large portions of the lines' support structures. The last failure occurred during the summer of 2012, which brought down a total of 28 structures spanning across a three-mile section of the line. This project would replace the entire line with new steel monopoles. The addition of new steel structures with their increased structural capacity would decrease the number of outages on the line caused by fallen support structures. This upgrades the electric grid reliability of the system and will avert possible violations from the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) standards.

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

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

**SOCIAL IMPACT:** The stronger steel poles will improve CAP's ability to continue water deliveries through the CAP canal during changes in the weather.

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

# TRASH RAKE INSTALLATION AT MARK WILMER PUMPING PLANT

**STRATEGY:** Effectively Manage, Operate and Maintain CAP Assets  
**KEY RESULT AREA:** Project Reliability  
**PROJECT #:** 610476

**START DATE:** 2<sup>nd</sup> Quarter 2014  
**COMPLETION DATE:** 1<sup>st</sup> Quarter 2017  
**TOTAL PROJECT COST:** \$7,283,900  
**FUNDING SOURCE:** "Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 7,283.9	\$ 3,878.1	\$ 3,370.1	\$ 35.7	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** A weed removal study at Mark Wilmer recommended the construction of an automated trash rake system.

**JUSTIFICATION:** There have been ongoing weed problems at Mark Wilmer since 2008. The Mark Wilmer pumping plant is the only plant in the CAP aqueduct system without an automated trash rake system. The lack of trash rakes allow trash, weeds and other debris to accumulate onto the trash racks which lead to a decrease in efficiency and cause failure of the equipment. Trash rack failure events have already occurred due to the volume of weed loading against the rack structure. During seasons of heavy weed loading, weed boats are utilized, but are not powerful enough to remove all the weeds.



**OPERATING IMPACT:** Heavy weed loading causes significant operating restrictions and failure of trash racks. Significant labor demand is required for weed removal activities. The efficient removal of weeds from the aqueduct at Mark Wilmer will reduce employee maintenance hours.

**SOCIAL IMPACT:** Removal of weeds with the weed boat requires aqueduct crews to patrol the inlet channel at night using lights to remove weeds. Successful weed removal impacts Colorado River diversion volumes and improves employee safety.

**ENVIRONMENTAL IMPACT:** A new trash rake system will remove weeds and allow unrestricted water flow and improved utilization of energy.



# TWIN PEAKS & SANDARIO HVAC REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	3 <sup>rd</sup> Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>th</sup> Quarter 2019
<b>PROJECT #:</b>	610497	<b>TOTAL PROJECT COST:</b>	\$ 3,374,100
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 3,374.1	\$ -	\$ 73.1	\$ 1,093.8	\$ 2,165.0	\$ 42.2	\$ -	\$ -	\$ -

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

**JUSTIFICATION:** The existing water-cooled air conditioning units at Twin Peaks and Sandario Pumping Plants are over 15-years old, and are reaching the end of their 20-year service life. The condensers are a modular design consisting of four compressors and four 10-tube heat exchangers that are not suitable for CAP applications. Raw water service has been harsh to these units, resulting in the tubes being plugged to prevent rupture. A maximum of 10% of the tubes can be plugged before efficiency and cooling capacity is reduced; currently all four heat exchangers have one tube plugged. The quality of the raw water has necessitated the change in the original control and has resulted in premature wear of the mechanical seats and their subsequent replacement.



**OPERATING IMPACT:** Improper cooling of units at Twin Peaks/Sandario (TWP/SAN) could cause unit failures/trips on temperature. The project team will be targeting the cooler winter months of the year for construction of the new HVAC system to help avoid any potential operational impacts.

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

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

# UZ1B SWITCHGEAR REPLACEMENT AT WADDELL

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2014
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2016
<b>PROJECT #:</b>	610460	<b>TOTAL PROJECT COST:</b>	\$ 1,209,800
		<b>FUNDING SOURCE:</b>	Big "R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 1,209.8	\$ 1,173.8	\$ 36.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Switchboard UZ1B at Waddell is a double-ended distribution switchboard which supplies 480VAC power for various plant services. The switchboard powers chillers, the switchyard control building, the station service switchgear and transfers to the emergency generator as required. UZ1B uses Merlin-Gerin circuit breakers for electrical protection and to perform switching operations.

**JUSTIFICATION:** Over time the components in these devices have degraded to the point that regular disoperation occurs during routing switching. These UZ1B have caused four major interruption failures due to degradation of functionality. Unscheduled outages affect resources that would otherwise be utilized for routine preventive maintenance work. The equipment has degraded to the point that routine maintenance requires plant personnel to wear full arc suits for tasks otherwise performed with a lesser level of PPE.

**OPERATING IMPACT:** Replacement of the circuit breakers will decrease maintenance costs and the occurrence of forced downtime.

**SOCIAL IMPACT:** Modern switchgear lineup will provide for a more reliable and safer electrical system.

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

# WADDELL COMPUTER-BASED CONTROL SYSTEM (CBCS) REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	1 <sup>st</sup> Quarter 2017
<b>PROJECT #:</b>	610468	<b>TOTAL PROJECT COST:</b>	\$ 466,300
		<b>FUNDING SOURCE:</b>	"Big R"

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

<i>Total</i>	<i>Pre-2016</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Balance</i>
\$ 466.3	\$ -	\$ 401.6	\$ 64.7	\$ -	\$ -	\$ -	\$ -	\$ -

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

**JUSTIFICATION:** The Waddell CBCS is required for safe, reliable plant function. Waddell is a unique location where reliability has an additional factor of importance.

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

**SOCIAL IMPACT:** The CBCS project improves the reliability of equipment for customer water deliveries and a decrease in risk for unplanned outages.

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

# WADDELL GOVERNOR CONTROLS REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2017
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>th</sup> Quarter 2018
<b>PROJECT #:</b>	610498	<b>TOTAL PROJECT COST:</b>	\$ 1,748,100
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,748.1	\$ -	\$ -	\$ 521.0	\$ 1,227.1	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** The pump/generator units (2, 3, 6, & 7) at Waddell incorporate a governor system that regulates the speed and flow of water through these units. This governor system was designed and built by Woodward Governors, a proven design and technology that has been mechanically quite reliable for many years. However, the electronic control portion of the governors is starting to fail and the parts have become obsolete and unavailable. The signal converter card helps regulate the speed and load on the units and has a microchip which has failed on a few occasions. This chip is no longer manufactured nor supported. The industry solution is to replace this card and the associated electrical controls with a programmable logic controller.

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

**OPERATING IMPACT:** The subject governor controls are required to operate the four pump/generators units (2,3,6 & 7). Not replacing these units may cause up to a fifty-percent decrease in pumping capacity, along with the inability to create electrical generation upon water releases.

**SOCIAL IMPACT:** The status of the Waddell plant "paying for itself" would be lost.

**ENVIRONMENTAL IMPACT:** Waddell would become a user of energy from the grid only, instead of a partner in supporting the grid.



# WADDELL RIVER OUTLET WORKS (ROW)

**STRATEGY:** Effectively Manage, Operate and Maintain CAP Assets  
**KEY RESULT AREA:** Project Reliability  
**PROJECT #:** 610479

**START DATE:** 3<sup>rd</sup> Quarter 2014  
**COMPLETION DATE:** 4<sup>th</sup> Quarter 2016  
**TOTAL PROJECT COST:** \$ 617,300  
**FUNDING SOURCE:** "Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 617.3	\$ 133.5	\$ 483.8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**DESCRIPTION:** Given the current operation and maintenance practices at the Waddell River Outlet Works (ROW), management from the BOR, CAP and Maricopa Water District (MWD) determined that several improvements to the ROW are needed to correct existing deficiencies. This project adds several security features and operational improvements.

**JUSTIFICATION:** The Waddell ROW is designed to release water from Lake Pleasant to Hank Raymond Lake, the lower lake, in the event of a flood or necessary evacuation releases. Knowing that the Waddell ROW has the capability to drain water from CAP's main operating reservoir emphasizes the additional factor of importance in keeping the operation, maintenance and security of the ROW up-to-date.

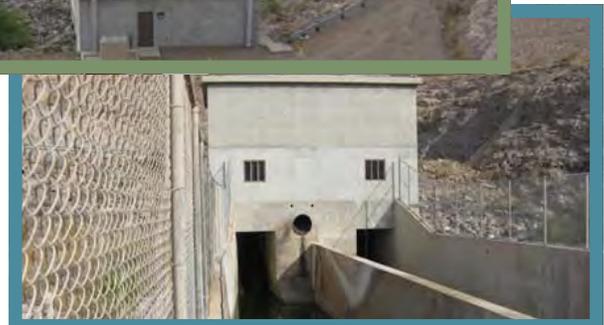


**OPERATING IMPACT:** The project will allow CAP to increase control over operations and management of flood and evacuation releases.



**SOCIAL IMPACT:** This project enhances the ability to protect CAP's assets and the surrounding areas.

**ENVIRONMENTAL IMPACT:** There is no additional environmental impact once construction is complete.



# WEST PLANTS BUS DISCONNECT SWITCH REPLACEMENT

<b>STRATEGY:</b>	Effectively Manage, Operate and Maintain CAP Assets	<b>START DATE:</b>	1 <sup>st</sup> Quarter 2016
<b>KEY RESULT AREA:</b>	Project Reliability	<b>COMPLETION DATE:</b>	4 <sup>th</sup> Quarter 2018
<b>PROJECT #:</b>	610500	<b>TOTAL PROJECT COST:</b>	\$ 1,114,800
		<b>FUNDING SOURCE:</b>	"Big R"

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

Total	Pre-2016	2016	2017	2018	2019	2020	2021	Balance
\$ 1,114.8	\$ -	\$ 407.5	\$ 378.9	\$ 328.4	\$ -	\$ -	\$ -	\$ -

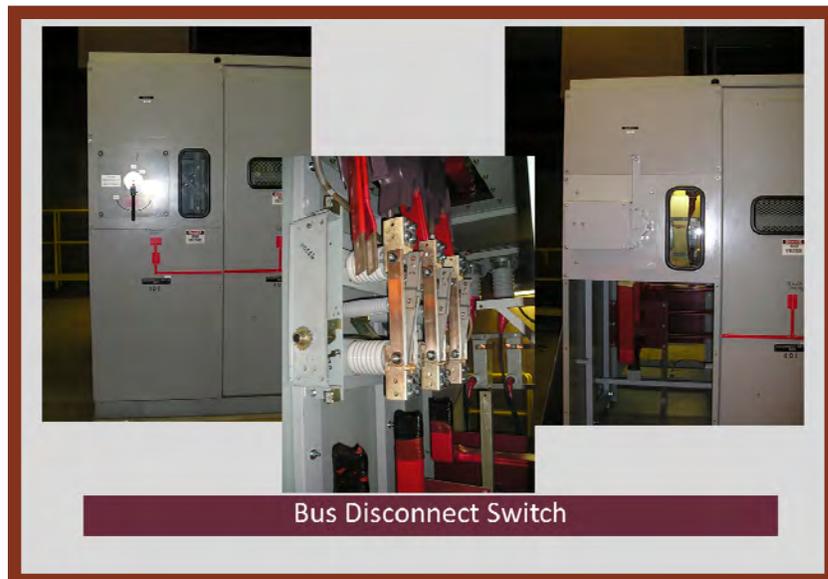
**DESCRIPTION:** The 6.9kV bus tie switches at Bouse, Little Harquahala and Hassayampa are used to isolate or connect different busses as needed to accommodate transformer outages. CAP has been experiencing problems with specific switches from one particular manufacturer – Electric Switch Manufacturing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

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

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

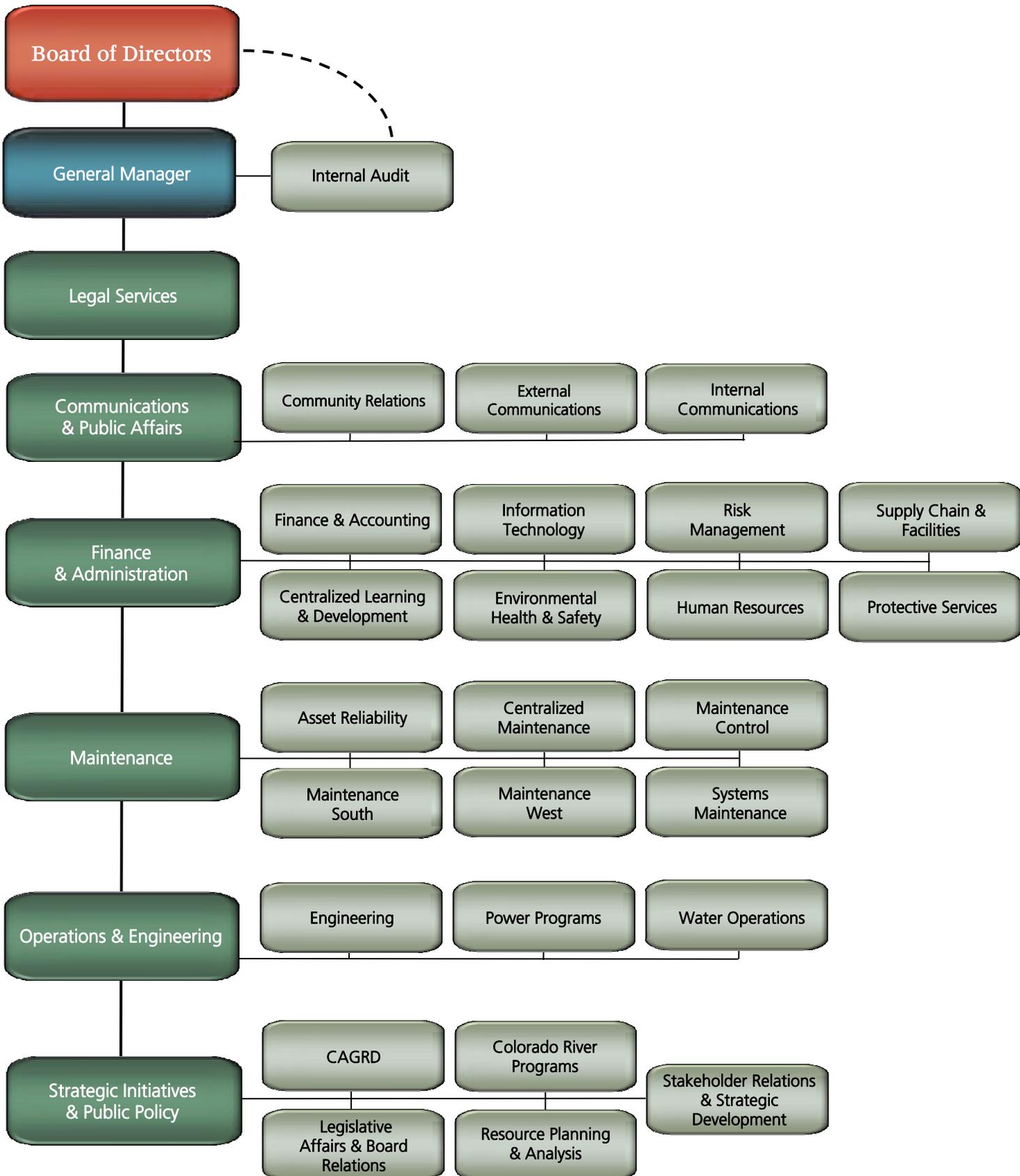
**SOCIAL IMPACT:** Replacement to reliable and efficient switches will reduce the amount of maintenance downtime and contributes to the reliability of water deliveries to customers.

**ENVIRONMENTAL IMPACT:** No significant environmental impact identified.



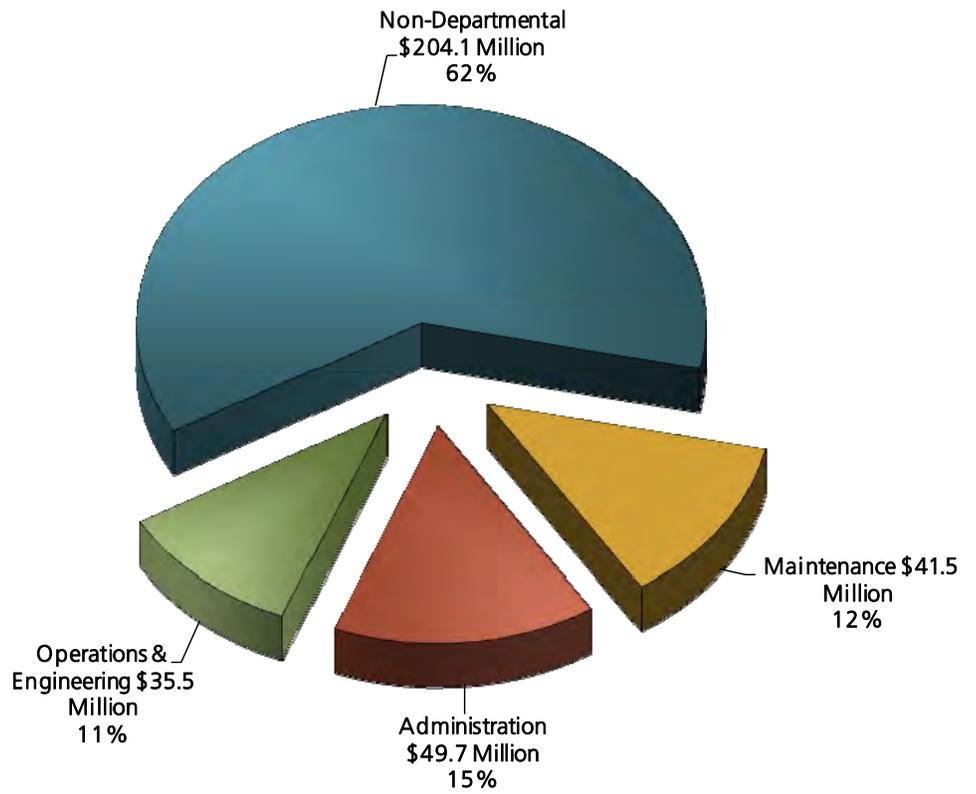


# TABLE OF ORGANIZATION

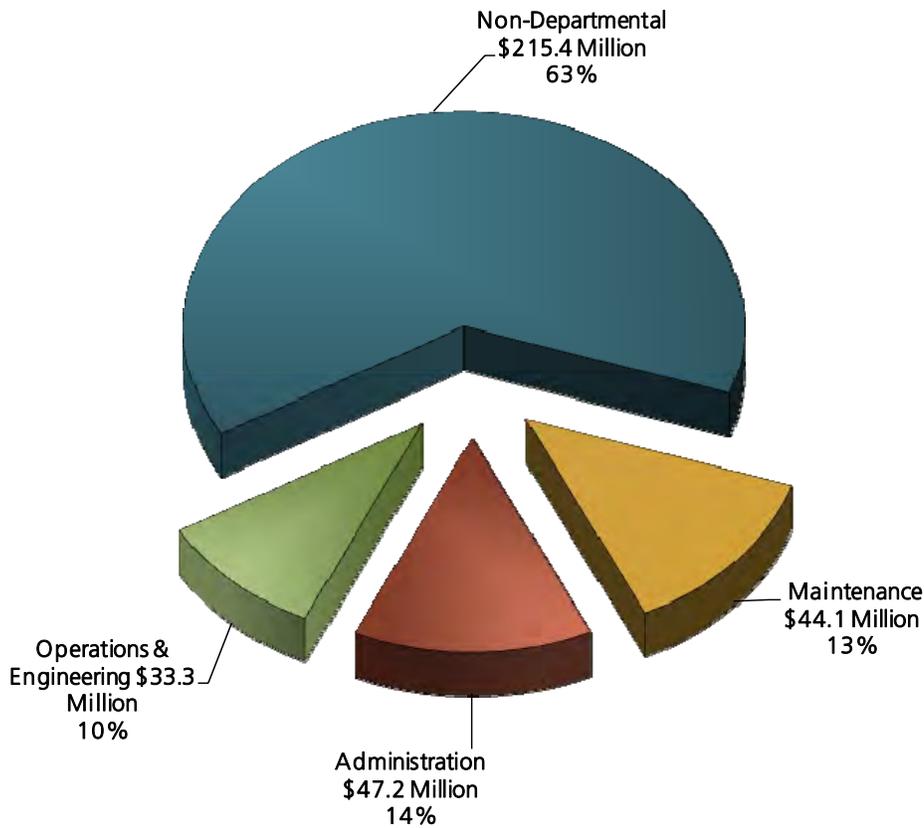


# TOTAL EXPENDITURES

2016



2017



# TOTAL EXPENDITURES

FIGURE 1  
Administration  
(2016 - \$49.7 Million; 2017 - \$47.2 Million)

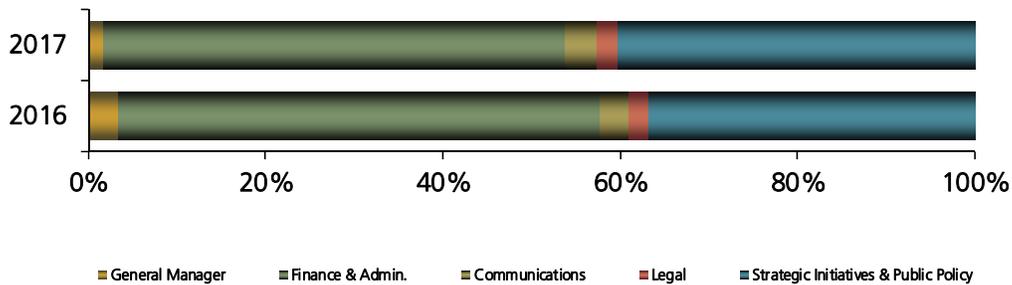


FIGURE 2  
Operations & Engineering  
(2016 - \$35.5 Million; 2017 - \$33.3 Million)

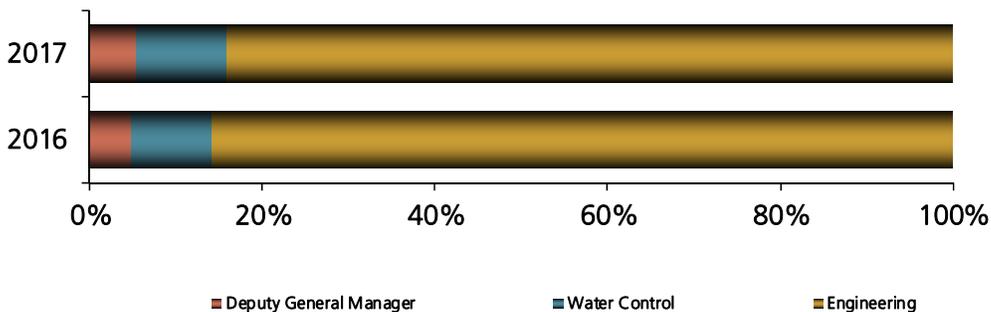


FIGURE 3  
Maintenance  
(2016 - \$41.5 Million; 2017 - \$44.1 Million)

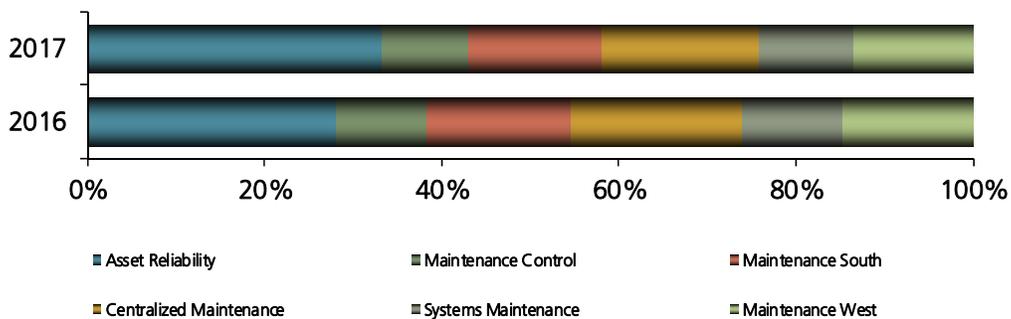
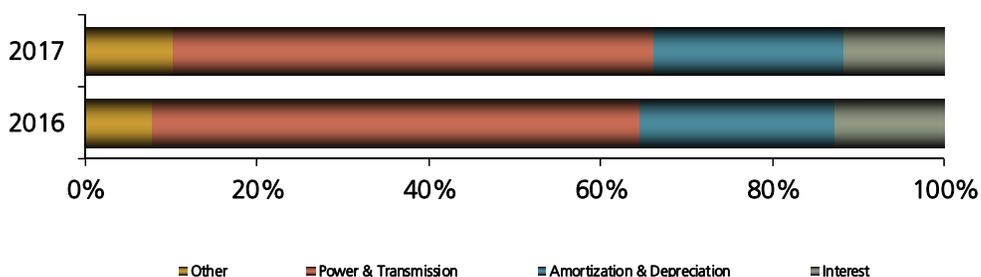


FIGURE 4  
Non-Departmental  
(2016 - \$204.1 Million; 2017 - \$215.4 Million)



# 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 responsibly
- Relationships among employees and customers that are collaborative and innovative
- Community connections through volunteerism, charitable contributions and public education



# SUMMARY OF POSITIONS

Average Full-Time Equivalent (FTE)

	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>General Manager</b>	3.0	3.0	2.6	3.0	3.0
<b>Legal Services</b>	6.0	5.6	5.0	5.0	5.0
<b>Communications &amp; Public Affairs</b>	8.0	8.0	8.0	8.0	8.0
<b>Finance &amp; Administration</b>					
Administration	5.7	5.5	3.0	3.0	3.0
Finance & Accounting	16.7	16.2	17.0	17.0	17.0
Information Technologies	37.8	37.5	39.4	40.0	40.0
Supply Chain & Facilities	34.8	35.6	35.2	35.8	35.8
Cent Learning & Development	5.5	5.6	5.6	6.0	6.0
Environmental, Health & Safety	8.9	9.1	9.9	10.0	10.0
Human Resources	6.2	6.0	5.5	7.5	7.5
Protective Services	9.9	9.8	10.0	10.0	10.0
<b>Total Finance &amp; Administration</b>	<b>125.5</b>	<b>125.3</b>	<b>125.6</b>	<b>129.3</b>	<b>129.3</b>
<b>Maintenance</b>					
Asset Reliability	-	0.6	5.2	6.0	6.0
Centralized Maintenance	53.1	52.7	54.0	55.0	56.0
Maintenance Control	34.8	36.6	37.6	39.0	39.0
Maintenance South	42.8	42.9	43.4	45.0	45.0
Maintenance West	40.8	41.8	41.0	42.0	42.0
Systems Maintenance	48.7	49.5	41.7	43.0	42.0
	<b>220.2</b>	<b>224.1</b>	<b>222.9</b>	<b>230.0</b>	<b>230.0</b>
<b>Operations &amp; Engineering</b>					
Administration & Power Programs	6.7	6.4	4.0	4.0	4.0
Engineering	64.0	63.9	65.0	67.0	67.0
Water Operations	22.0	20.9	21.3	22.0	22.0
	<b>92.7</b>	<b>91.2</b>	<b>90.3</b>	<b>93.0</b>	<b>93.0</b>
<b>Total Operations &amp; Maintenance</b>	<b>312.9</b>	<b>315.3</b>	<b>313.2</b>	<b>323.0</b>	<b>323.0</b>
<b>Strategic Initiatives &amp; Public Policy</b>					
Legislative Affairs & Stakeholder Relations	7.0	7.0	6.3	8.0	8.0
CAGR	7.4	7.3	7.5	8.0	8.0
Colorado River Programs	-	0.4	2.7	3.0	3.0
Resource Planning and Analysis	5.0	4.8	4.2	5.0	5.0
<b>Total Strategic Initiatives &amp; Public Policy</b>	<b>19.4</b>	<b>19.5</b>	<b>20.7</b>	<b>24.0</b>	<b>24.0</b>
<b>Total FTE</b>	<b>474.8</b>	<b>476.7</b>	<b>475.1</b>	<b>492.3</b>	<b>492.3</b>
Vacancy/Salary Savings Equivalent			(1.3)	(15.0)	(15.0)
<b>Net FTE</b>	<b>474.8</b>	<b>476.7</b>	<b>473.8</b>	<b>477.3</b>	<b>477.3</b>

# EXPLANATION OF CHANGES IN POSITIONS

Average Full-Time Equivalent (FTE)

	2015 Projection	2016 Budget	2017 Budget	2016 vs 2015	2017 vs 2016	Notes
<b>General Manager</b>	2.6	3.0	3.0	0.4	-	Filling vacant position
<b>Legal Services</b>	5.0	5.0	5.0	-	-	
<b>Communications &amp; Public Affairs</b>	8.0	8.0	8.0	-	-	
<b>Finance &amp; Administration</b>						
Administration	3.0	3.0	3.0	-	-	
Finance & Accounting	17.0	17.0	17.0	-	-	
Information Technologies	39.4	40.0	40.0	0.6	-	Filling vacant position
Supply Chain & Facilities	35.2	35.8	35.8	0.6	-	Filling vacant position
Cent Learning & Development	5.6	6.0	6.0	0.4	-	Filling vacant position
Environmental, Health & Safety	9.9	10.0	10.0	0.1	-	
Human Resources	5.5	7.5	7.5	2.0	-	
Protective Services	10.0	10.0	10.0	-	-	
<b>Total Finance &amp; Administration</b>	<b>125.6</b>	<b>129.3</b>	<b>129.3</b>	<b>3.7</b>	-	
<b>Operations &amp; Engineering</b>						
Asset Reliability	5.2	6.0	6.0	0.8	-	
Centralized Maintenance	54.0	55.0	56.0	1.0	1.0	Transferred fr Apprenticeship program
Maintenance Control	37.6	39.0	39.0	1.4	-	Filling vacant position
Maintenance South	43.4	45.0	45.0	1.6	-	Transferred fr Apprenticeship program
Maintenance West	41.0	42.0	42.0	1.0	-	Filling vacant position
Systems Maintenance	41.7	43.0	42.0	1.3	(1.0)	Apprentice move to permanent dept.
Administration & Power Programs	4.0	4.0	4.0	-	-	
Engineering	65.0	67.0	67.0	2.0	-	Position transfer from Water Control
Water Operations	21.3	22.0	22.0	0.7	-	Filling vacant position
<b>Total Operations &amp; Maintenance</b>	<b>313.2</b>	<b>323.0</b>	<b>323.0</b>	<b>9.8</b>	-	
<b>Strategic Initiatives &amp; Public Policy</b>						
Legislative Affairs & Stakeholder Relations	6.3	8.0	8.0	1.7	-	Filling vacant position Additional FTE transferred from Legal Dept
CAGR	7.5	8.0	8.0	0.5	-	Filling vacant position
Colorado River Programs	2.7	3.0	3.0	0.3	-	
Resource Planning and Analysis	4.2	5.0	5.0	0.8	-	
<b>Total Strategic Initiatives &amp; Public Policy</b>	<b>20.7</b>	<b>24.0</b>	<b>24.0</b>	<b>3.3</b>	-	
<b>Total FTE</b>	<b>475.1</b>	<b>492.3</b>	<b>492.3</b>	<b>17.2</b>	-	
Vacancy/Salary Savings Equivalent	(1.3)	(15.0)	(15.0)	(13.7)	-	
<b>Net FTE</b>	<b>473.8</b>	<b>477.3</b>	<b>477.3</b>	<b>3.5</b>	-	

# GENERAL MANAGER

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

**GENERAL MANAGER**  
Theodore C. Cooke  
Interim General Manager  
623-869-2167

**Internal Audit**  
Mark Filippone  
623-869-2123

Responsible for providing independent, objective assurance and consulting services to assist management in accomplishing the District's business objectives, identifying and managing risks, improving operations and establishing effective controls at a reasonable cost.

Responsible for overseeing the management and operations of the District. This is accomplished by implementing the Board of Director's (Board) strategic vision, building and maintaining trust-based relationships with stakeholders, protecting the District's resources and operating in a responsible and environmentally sound manner.

GENERAL MANAGER

ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Leadership & Public Trust	Build a strong CAP work community	<p>Goal: Implement development programs to prepare existing employees to assume leadership roles for a diversified and cohesive workforce, while continuing to build employee and work group relationships through improved internal communication, business initiative alignment and teamwork across departments.</p> <p>Accomplishment: Introduced the Supervisor Academy and Leadership Development programs. Through the Teaming Up program, formed four interdisciplinary teams to identify and address company-wide initiatives.</p>
	Position CAP as a recognized leader in water and energy management	<p>Goal: Actively engage at national, state and regional levels to promote the interests of CAP and its constituents.</p> <p>Accomplishment: Presented at national, regional and local conferences where CAP and Colorado River issues were the primary topics, including Colorado River Water Users Association (CRWUA), WUWC, AWWA, AZ Water, AZ League of Cities and Towns, Arizona Capitol Times Morning Scoop, Arizona Science Center, Greater Phoenix Economic Council and many more. Co-sponsored Shortage Preparedness Workshop with Arizona Department of Water Resources (ADWR).</p>
	Create a more effective customer and stakeholder working relationship within the M&I, agricultural, Native American Indians and irrigation districts	<p>Continue active outreach and liaison programs with customers to pursue improved and effective relationships among customers and stakeholders, including municipal and industrial (M&amp;I), agricultural and Native American tribes.</p> <p>Accomplishment: Implemented monthly M&amp;I newsletter. Held joint CAWCD/Arizona Municipal Water Users Association (AMWUA) meetings. Initiated municipal outreach meetings with M&amp;I customers. Hosted two tribal workshops and various meetings with tribal interests; hosted two Agricultural interest luncheon meetings.</p>
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Goal: Implement systems that reduce costs, increase revenues, improve reliability or improve functionality.</p> <p>Accomplishment: Proposed and implemented Supplemental Shortage Stabilization program. In conjunction with the Protection Volume Memorandum of Understanding (MOU) for Lake Mead and the Pilot System Conservation Program, identified financing approaches for forbearance and conservation initiatives.</p>
Project Reliability	Provide reliable and cost-effective water deliveries	<p>Goal: Implement processes designed to ensure the integrity of the physical system and minimize unplanned outages and maximize customer deliveries.</p> <p>Accomplishment: Patrol CAP and identify trespassing, encroachment and security issues. All customer orders were met. Forced outages were less than 1.5%.</p>

GENERAL MANAGER

ACCOMPLISHMENTS - 2014 AND 2015

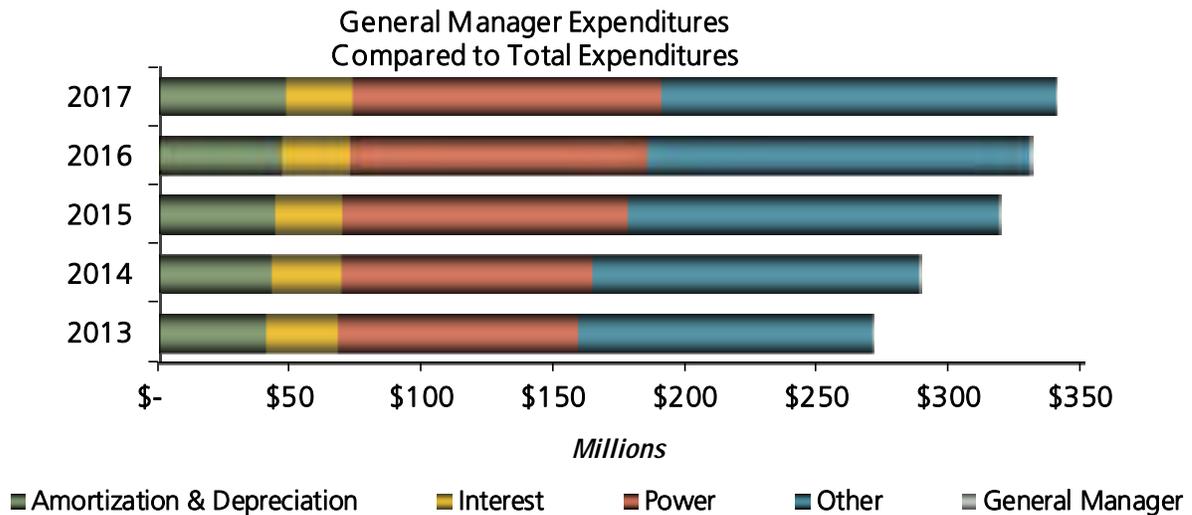
Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Project Reliability	Maintain high levels of skills and job proficiency among employees	<p>Goal: Continue to establish methods which encourages advancement of employee performance and skills through increased understanding of existing programs, policies and procedures.</p> <p>Accomplishment: Incorporated the performance evaluation form into the Enterprise Resource Planning system (Oracle). Redesigned the job family and job grade structure to integrate the three pay delivery systems (ATP, ESS and Crafts-Trades) into a single structure. Modified the performance evaluation cycle to more closely correspond to the calendar year and be more timely.</p>
	Improve technology management	<p>Goal: Implement technology that increases access to information by employees, directors, stakeholders and the general public.</p> <p>Accomplishment: Launched <i>CAP Connections</i> internal employee communications webpage. Redesigned main CAP website. Integrated significant advances for Board communications into the new multi-purpose facility.</p>
Water Supply	Manage Colorado River to optimize CAP water availability	<p>Goal: Engage in processes at the federal and regional arenas that protect and enhance western water supplies, particularly the Colorado River.</p> <p>Accomplishment: Implemented the Protection Volume MOU with other lower basin states and participated in the Pilot System Conservation Program. Continued participation in salinity control and binational work groups, including the new Minute 32x to the Mexican Treaty.</p>
Power	Develop plans for reliable, sustainable, cost-effective generation resources for the future	<p>Goal: Continue to work with the U.S. Environmental Protection Agency (EPA), Bureau of Reclamation (Bureau or BOR), Salt River Project (SRP), Native American tribes and environmental stakeholders to successfully conclude efforts to ensure the ongoing operation of the Navajo Generating Station (NGS) through 2044, including the Best Available Retrofit Technology (BART) rule, the extension of the NGS Land Lease and Coal Supply Agreement and the National Environmental Policy Act (NEPA) compliance.</p> <p>Accomplishment: Actively participated in matters relating to the ongoing EPA NEPA process, land lease and coal contract renegotiations and greenhouse gas and other environmental regulations.</p>
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	<p>Goal: Submit the next 10-year Central Arizona Groundwater Replenishment District (CAGRDR) Plan of Operation to the ADWR by December 31, 2014, continue to implement the CAGRDR water supply acquisition program and work to finalize a Standard Form Wheeling Agreement with the Bureau.</p> <p>Accomplishment: CAGRDR 2015 Plan of Operation was submitted to ADWR in December 2014 and approval of the Plan was received in August 2015. Work continues to finalize the framework for Section 8.17 wheeling for long-term contract firming during shortage.</p>

GENERAL MANAGER  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Leadership & Public Trust	Build a strong CAP work community	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.
	Position CAP as a recognized leader in water and energy management	Actively engage at national, state and regional levels to promote the interests of CAP and its constituents.
	Create a more effective customer and stakeholder working relationship within the M&I, agricultural, Native American Indians and irrigation districts	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.
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	Implement systems that enhance current capabilities of CAP that reduce costs, increase revenues, improve reliability or improve functionality.
Project Reliability	Provide reliable and cost-effective water deliveries	Implement processes designed to ensure the integrity of the physical system, minimize unplanned outages and maximize customer deliveries.
	Maintain high levels of skills and job proficiency among employees	Continue to establish methods which encourages advancement of employee performance and skills through increased understanding of existing programs, policies and procedures.
	Improve technology management	Implement technology that increases access to information by employees, directors, stakeholders and the general public.
Water Supply	Manage Colorado River to optimize CAP water availability	Engage in processes at the federal and regional arenas that protect and enhance western water supplies, particularly the Colorado River.
Power	Develop plans for reliable, sustainable, cost-effective generation resources for the future	Continue to work with the EPA, Bureau, SRP, Native American tribes and environmental stakeholders to successfully conclude efforts to ensure the ongoing operation of the NGS through 2044. Continue to identify and explore alternatives for post-NGS.
Replenishment	Obtain sufficient water supplies to meet long-term replenishment obligation	Continue to implement the CAGRDR water supply acquisition program and work to finalize the wheeling, firming and recovery framework.

# GENERAL MANAGER BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 468.4	\$ 483.3	\$ 371.1	\$ 503.2	\$ 518.2
Outside services	279.4	633.7	512.6	1,031.7	117.3
Materials & supplies	2.2	1.6	1.6	1.4	1.4
Other expenses	106.3	111.9	125.3	130.7	117.2
<b>Total Operating Expenses</b>	<b>\$ 856.3</b>	<b>\$ 1,230.5</b>	<b>\$ 1,010.6</b>	<b>\$ 1,667.0</b>	<b>\$ 754.1</b>
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 856.3	\$ 1,230.5	\$ 1,010.6	\$ 1,667.0	\$ 754.1
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 856.3</b>	<b>\$ 1,230.5</b>	<b>\$ 1,010.6</b>	<b>\$ 1,667.0</b>	<b>\$ 754.1</b>
<b>Capital Expenditures</b>	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 856.3</b>	<b>\$ 1,230.5</b>	<b>\$ 1,010.6</b>	<b>\$ 1,667.0</b>	<b>\$ 754.1</b>
<b>Staffing (FTE)</b>	3.0	3.0	2.6	3.0	3.0





# LEGAL SERVICES

**Mission:** The Legal Services Group provides timely, effective and high-quality legal services to the Board of Directors, management and staff of the CAWCD.



Responsible for managing timely, effective and high-quality legal services to the CAWCD Board, management and staff in order to assure compliance with laws, regulations and policies applicable to CAWCD and support achievement of the District's strategic and business objectives.

LEGAL SERVICES

ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Water Supply	Prepare for CAP Non-Indian Agriculture (NIA) Reallocation	<p>Goal: Work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA Water.</p> <p>Accomplishment: CAP has worked with ADWR to develop and submit a recommendation to reallocate CAP NIA priority water to the United States Secretary of the Interior. CAP has developed an MOU with the ADWR and the BOR that will allow those entities to develop an environmental assessment that will analyze the environmental impacts of the proposed reallocation, in anticipation of finalizing the contracts for NIA priority water.</p>
	Support development of program for wheeling non-project water.	<p>Goal: Complete and implement appropriate wheeling agreements.</p> <p>Accomplishment: Supported the CAWCD stakeholder process to refine and improve the CAWCD Staff Wheeling Proposal. The stakeholder process consisted of four stakeholder meetings held between March 2014 and June 2014. Supported the finalization of the Staff Wheeling Proposal, which was presented to the Board in October, 2014. The Board authorized the submittal of the Staff Proposal to the Bureau with a request to begin negotiation on a standard form of wheeling agreement.</p>
Replenishment	Support the acquisition of new water supplies for CAGR	<p>Goal: Aggressively acquire water supplies as outlined in Plan of Operations</p> <p>Accomplishment: Supported the following water supply acquisitions: (1) 18,185 AF/yr of CAP NIA Priority Water pursuant to ADWR's Recommendation for Reallocation of Non-Indian Ag Priority Water (January 2014); (2) 100-year lease of 2,400 AF/yr of effluent from Liberty Utilities (February 2014); (3) acquisition of 60,000 AF of long-term storage credits from Bureau.</p>
Power	Maintain existing generation resources	<p>Goal: Develop and implement revenue generation mechanisms such as bonding, rates and fees, that are sufficient to carry out water supply acquisition plan.</p>
		<p>Accomplishment: Participated in identifying bonding opportunities for certain water supply acquisitions.</p>
Power	Maintain existing generation resources	<p>Goal: Work to influence potential Arizona Power Authority (APA) post-2017 Hoover reallocation process.</p>
		<p>Accomplishment: CAP has effectively participated in the process through the submission of written comments, oral presentations and direct negotiations with the APA. CAP is on target to achieve a resolution equal to its target allocation, but the determination will not be completed until later in 2015.</p>

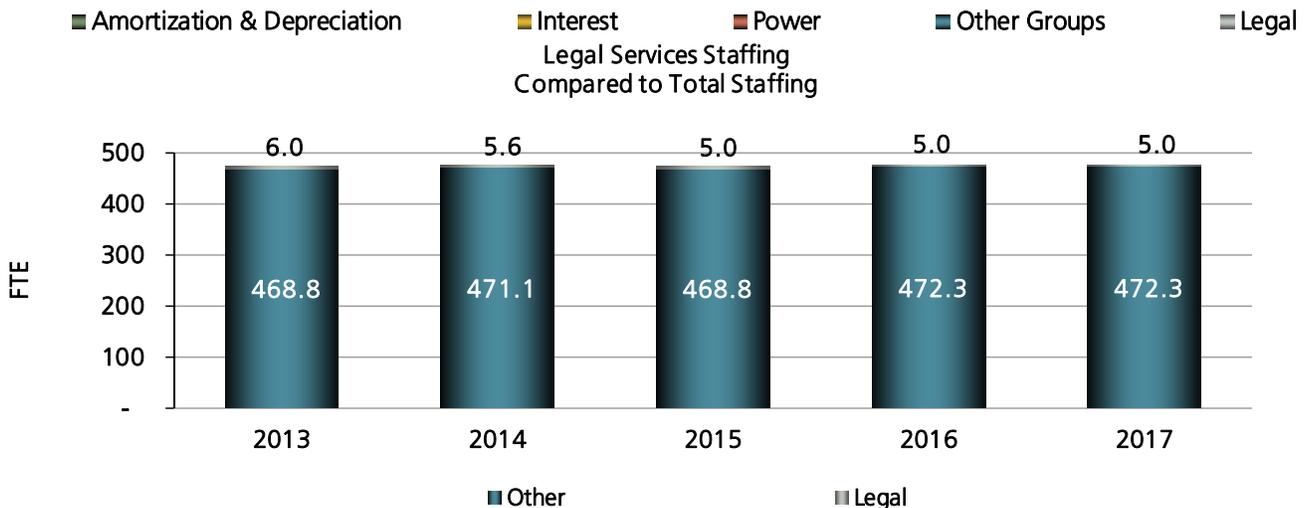
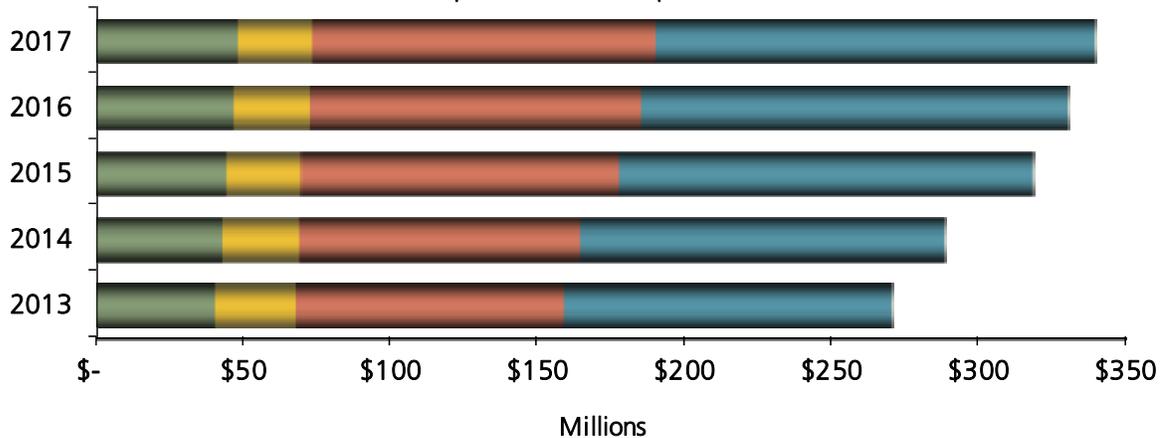
LEGAL SERVICES  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Water Supply	Prepare for CAP Non-Indian Agriculture (NIA) Reallocation	Work with ADWR and stakeholders to develop an appropriate strategy for reallocation of CAP NIA Water.
	Support development of program for wheeling non-project water.	Complete and implement appropriate wheeling agreements.
Replenishment	Support the acquisition of new water supplies for CAGRD	Aggressively acquire water supplies as outlined in the Plan of Operation.
		Measure/Target: Number of acre-feet acquired, with a target of 25,000 AF.  Develop and implement revenue generation mechanisms such as bonding, rates and fees, that are sufficient to carry out water supply acquisition plan.
Power	Maintain existing generation resources	Work to influence potential APA post-2017 Hoover reallocation process.
		Measure/Target: Amount of Hoover allocation retained, with a target of achieving allocation as set forth in the Hoover customer proposal (current allocation subject to adjustment for Hoover D).
		Work to reach a positive resolution on outstanding NGS issues.  Measure/Target: Continue litigating BART rule challenges to a positive conclusion. Participate in NEPA process and maintain on schedule (draft Environmental Impact Statement (EIS) Summer 2016, Record of Decision (ROD) Fall 2017).

# LEGAL SERVICES BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 846.0	\$ 824.3	\$ 760.8	\$ 793.8	\$ 817.6
Outside services	279.4	304.3	315.7	260.0	260.0
Materials & supplies	3.6	3.7	6.1	5.2	5.2
Other expenses	60.4	55.1	64.5	68.3	68.3
<b>Total Operating Expenses</b>	<b>\$ 1,189.4</b>	<b>\$ 1,187.4</b>	<b>\$ 1,147.1</b>	<b>\$ 1,127.3</b>	<b>\$ 1,151.1</b>
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 1,189.4	\$ 1,187.4	\$ 1,147.1	\$ 1,127.3	\$ 1,151.1
CAGR D	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,189.4</b>	<b>\$ 1,187.4</b>	<b>\$ 1,147.1</b>	<b>\$ 1,127.3</b>	<b>\$ 1,151.1</b>
<b>Capital Expenditures</b>	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,189.4</b>	<b>\$ 1,187.4</b>	<b>\$ 1,147.1</b>	<b>\$ 1,127.3</b>	<b>\$ 1,151.1</b>
<b>Staffing (FTE)</b>	6.0	5.6	5.0	5.0	5.0

Legal Services Expenditures  
Compared to Total Expenditures



# COMMUNICATIONS & PUBLIC AFFAIRS

**Mission:** The Communications and Public Affairs Group conducts strategic public relations, media, business, community and employee communications programs to increase knowledge, awareness and recognition of CAP, its leadership and management of central and southern Arizona's Colorado River water supplies.



**Communications & Public Affairs (Communications):** Establishes and promotes positive relationships with a variety of internal and external constituents by providing information, perspectives and programs that help influence public opinion and behaviors, and enhance our reputation as a strategic partner in the management, delivery and protection of Colorado River water.

**External Communications/Media Relations:** Builds relationships with a variety of news organizations locally, statewide and throughout the southwest region to position CAWCD as an effective and strategic leader on Colorado River water issues. Develops and manages print, broadcast and electronic media messages and authors the District's Annual Report.

**External Communications/Community Relations:** Increases the visibility of CAP to the general public, business and community organizations, governmental entities and schools throughout Arizona and in the southwest region through active participation in business and civic groups, development of curriculum materials in schools, hosting and sponsoring community outreach efforts and serving as content manager of CAWCD's website.

**Internal Communications/Visual Communications:** Creates, plans, develops and executes employee communications activities, campaigns, programs, volunteer opportunities, scholarship awards and special events. Manages, coordinates and produces photographic, audio and video productions for internal and external audiences.

COMMUNICATIONS & PUBLIC AFFAIRS  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Leadership & Public Trust	Educate about CAP and improve understanding of water and power issues	<p>Goal: Create channels of communication that will provide greater visibility for CAP, including a statewide media campaign and coordinated social media efforts including a company blog.</p> <p>Accomplishment: Our main CAP website traffic remains fairly constant at approximately 12,000 visits per month. Our drop rate is very low, indicating the navigation is effective and visitors are satisfied. Information is posted multiple times per week on Facebook and Twitter to promote current activities and events. The CAP YouTube channel is used to promote CAP Channels video programs about topical business issues. In May 2013, CAP had a total of 374 page likes on Facebook, and in May 2015, that number increased to 569. In September 2014, the average tweet impressions was in the 6000s, and currently that has more than doubled to over 12,000 impressions.</p>
		<p>Goal: Increase Board and stakeholder interaction by further developing and identifying public speaking opportunities and public presentations.</p> <p>Accomplishment: Board members and senior staff spoke at more than 20 community events, leadership forums, luncheons, symposiums and public dialogues. Previous Board President, Pam Pickard, was recognized as 2014 Leader of the Year in Public Policy by AZ Capitol Times.</p>
	Build a strong CAP work community	<p>Goal: Build relationships among employees and work groups, and communicate the intent and purpose of strategic initiatives, policies and business decisions so that they are understood and supported throughout the organization. This includes Beyond the Buzz meetings, Lunch &amp; Learns, weekly and quarterly publications and internal events.</p> <p>Accomplishment: CAP provides semi-annual Beyond the Buzz meetings, daily online news and information, quarterly print publications, and internal events such as Take Your Kids to Work Day and Safety Week to help build employee working relationships. Shared Big 5 Organization-Wide Goals and results with all employees.</p>
Improve relationship with other stakeholders	<p>Goal: Provide more detailed information on website regarding activities of CAP, issues of interest, priorities and responsibilities of the Board, including specific contact information, in a manner that is informative to the public.</p> <p>Accomplishment: CAP website is updated in all key areas within 24 hours of important events of change.</p>	

COMMUNICATIONS & PUBLIC AFFAIRS  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
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Leadership & Public Trust	Encourage community involvement	<p>Goal: Encourage increased leadership, outreach and public involvement of CAP within the greater community and support CAP employees' volunteer activities.</p> <p>Accomplishment: CAP has participated in over 40 community events per year including public forums, conferences, luncheons, expos, educational events and more. CAP employees organized and participated in 13 volunteer activities per year including workdays, blood drives, donation drives and more. CAP volunteers were recognized at the annual President's Award for Community Service luncheon.</p>
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Project Reliability	Maintain high levels of skills and job proficiency among employees	<p>Goal: Align Communications team members' development efforts to CAP's desire to grow leaders and insistently ensure the level of proficiency and success of employees.</p> <p>Accomplishment: The Communications Group began a team development process (POD) that reviewed its current state, determined its future state and identified ways to achieve departmental and company goals. The group benchmarked best practices for communications skills, received a written assessment of future communications trends, and were provided private feedback sessions and leadership coaching.</p>
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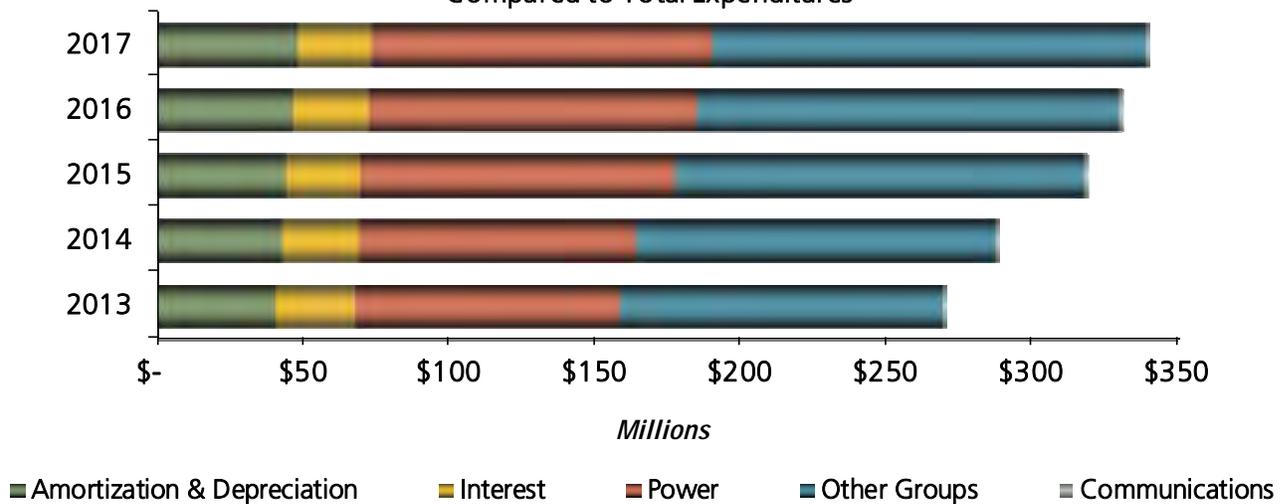
COMMUNICATIONS & PUBLIC AFFAIRS  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Leadership & Public Trust	Educate about CAP and improve understanding of water and power issues	Find opportunities for CAP to host or sponsor conferences where CAP's messages are the primary ones.
		Measure/Target: CAP will sponsor or partially sponsor events with Universities, colleges, museums, professional organizations, leadership groups, associations, utility alliances, cities and towns and many others. Set a target of 15 events per year.
		Increase Board and stakeholder interaction by further developing and identifying public speaking opportunities and public presentations.
	Build a strong CAP work community	Measure/Target: Place Board or senior staff in high-profile speaking engagements 4 to 6 times each year. Set a target of 4 to 6 each year.
		Build relationships among employees and work groups and communicate the intent and purpose of strategic initiatives, policies and business decisions so that they are understood and supported throughout the organization. Measure/Target: Produce 3 Open Channels; update CAP Connections daily; hold 2 Beyond the Buzz Meetings; coordinate annual Take Your Kids to Work Day; communicate Big 5 goals quarterly.
Encourage community involvement	Encourage increased leadership, outreach and public involvement of CAP within the greater community and support CAP employees' volunteer activities. Measure/Target: Participate in 5 community events and institute 12 volunteer activities per year.	
Project Reliability	Improve relationships with other stakeholders	Provide more detailed information on website regarding activities and the District, issues of interest, priorities and responsibilities of the Board, including specific contact information, in a manner that is informative to the public. Measure/Target: Communicate ongoing status of shortage and drought on our website and through CAP News. With a target of collaboration with key stakeholders including ADWR, Agribusiness and Water Council, AMWUA, SAWUA and others to develop key messages regarding drought and shortage preparations and planning.
	Maintain a safe, healthy and secure work environment	Promote healthy habits in the workforce. Enhance CAP's wellness program to focus on multiple health-related factors. Measure/Target: Produce safety-related communications pieces including Bathroom Billboards, Safety Week Guidebook, Safety Video and other miscellaneous communications. Set a target of 52 Bathroom Billboards, Safety Week Guidebook and Safety Video.

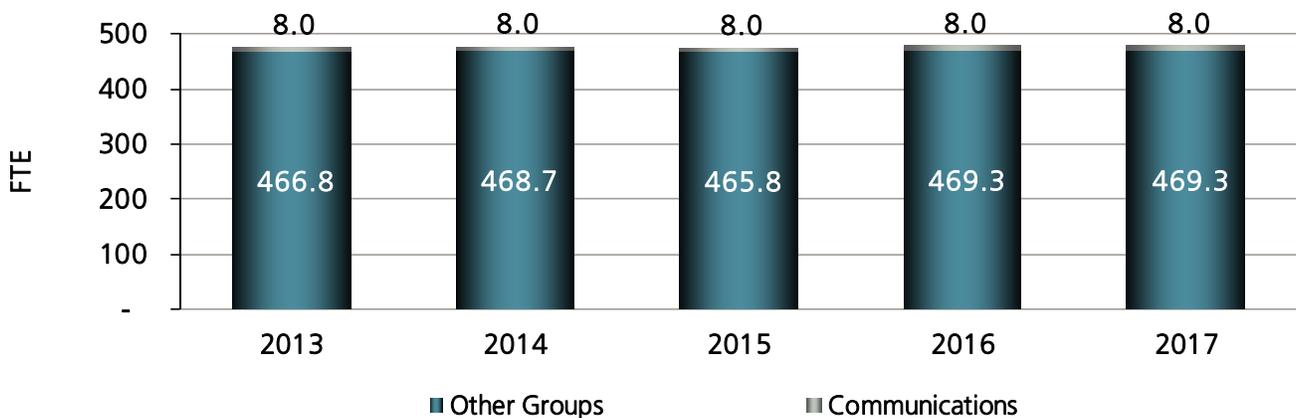
# COMMUNICATIONS & PUBLIC AFFAIRS BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 776.9	\$ 795.6	\$ 792.1	\$ 819.8	\$ 844.4
Materials & supplies	11.9	13.9	13.1	15.3	15.3
Other expenses	1,016.7	811.1	826.2	799.9	802.2
<b>Total Operating Expenses</b>	<b>\$ 1,805.5</b>	<b>\$ 1,620.6</b>	<b>\$ 1,631.4</b>	<b>\$ 1,635.0</b>	<b>\$ 1,661.9</b>
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 1,805.5	\$ 1,620.6	\$ 1,631.4	\$ 1,635.0	\$ 1,661.9
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,805.5</b>	<b>\$ 1,620.6</b>	<b>\$ 1,631.4</b>	<b>\$ 1,635.0</b>	<b>\$ 1,661.9</b>
<b>Capital Expenditures</b>	-	17.3	0.3	-	-
<b>Total Expenditures</b>	<b>\$ 1,805.5</b>	<b>\$ 1,637.9</b>	<b>\$ 1,631.7</b>	<b>\$ 1,635.0</b>	<b>\$ 1,661.9</b>
<b>Staffing (FTE)</b>	8.0	8.0	8.0	8.0	8.0

Communications & Public Affairs Expenditures  
Compared to Total Expenditures



Communications & Public Affairs Staffing  
Compared to Total Staffing





# FINANCE & ADMINISTRATION

**Mission:** The Finance & Administration Group is responsible for managing financial and administrative activities of the District, including finance and accounting, risk management, information technology, supply chain and facilities management, environmental, health and safety, centralized learning, and protective services. Ensures the accuracy and integrity of financial reporting, including planning, rates, budget, and reserves as well as compliance with environmental and safety standards, information security and oversight of the captive insurance operations.

**FINANCE & ADMINISTRATION**  
Theodore C. Cooke  
Deputy General Manager  
623-869-2167

Responsible for managing financial, technology and material resources on behalf of the District.

**Finance & Accounting**  
Doug Dunlap  
623-869-2360

Responsible for financial analysis and statement reporting according to generally accepted accounting principles. Responsible for budget development and management, long-range financial planning, cash and treasury management, accounts receivable and payable, payroll, accountable property and working with outside auditors during the annual financial audit.

**Information Technologies**  
*(IT ERP, Data Integration, IT Infrastructure & IT (Project Mgmt))*  
Phil Cook  
623-869-2299

Responsible for the operation, maintenance and business continuity of the information technology infrastructure including applications, networks, servers and workstations located at Headquarters and the structures along the CAP canal.

**Risk Management**  
Debbie Jo Maust  
623-869-2160

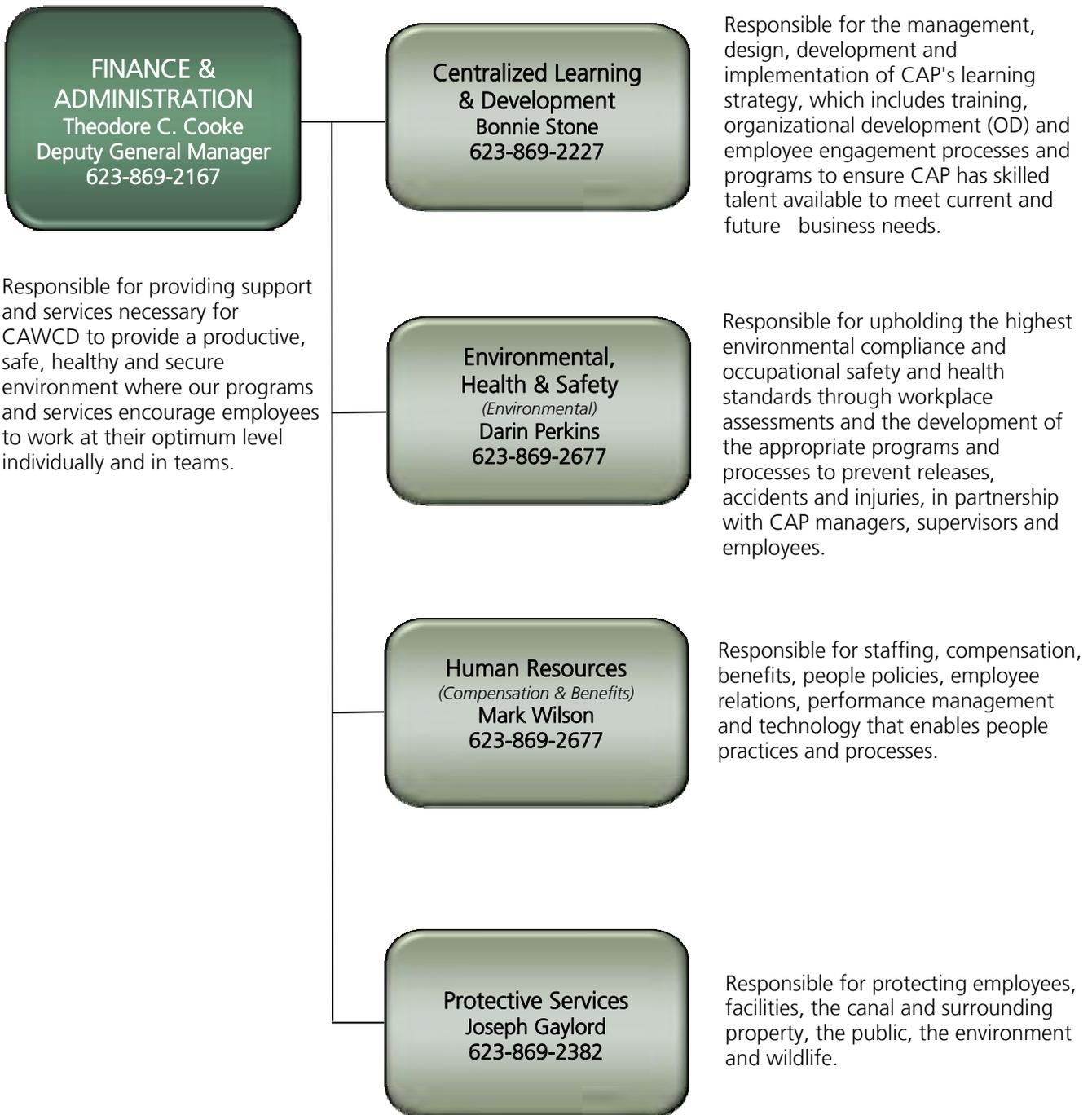
Responsible for coordinating the District's risk management activities to control the cost of risk through risk avoidance, risk control and risk financing, managing the CAWCD captive insurance company and administering the property & casualty and worker's compensation insurance programs.

**Supply Chain & Facilities**  
*(Purchasing, Material Control & Dist., HQ Maint & Facility Services)*  
Gerald Lubash  
623-869-2632

Responsible for the procurement of goods and services, inventory control, distribution of materials, supplies and equipment to various locations, as well as facilities services and CAP Headquarters maintenance.

# FINANCE & ADMINISTRATION (CONT'D)

**Mission:** The Finance and Administration Group provides financial planning, analysis and reporting; supports business objectives by providing necessary technology tools; manages financial resources; provides efficient and cost-effective material management services; maintains financial integrity and provides financial information to internal and external customers and constituents.



FINANCE & ADMINISTRATION  
**ACCOMPLISHMENTS - 2014 AND 2015**

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Leadership & Public Trust	Educate about CAP and improve understanding of water, power issues and canal safety	<p>Goal: Further develop amount and type of content presented electronically to internal and external entities.</p> <p>Accomplishment: Water Management System Phase II completed November 2014. Teaming Up initiative recommendation lead to creation of Mobility Committee in 2014 with pilot project in place 1Q 2015 and additional projects identified. Virtual Private Network (VPN) updated in Q4 2014 and additional functionality via cellular network being evaluated.</p>
	Maintain coordinated financial strategies (budget, reporting, revenues, expenditures, rates, taxes, reserves)	<p>Goal: Develop an asset management cost structure to easily measure and control activity-based costs, including tracking costs relative to individual assets or activities.</p> <p>Accomplishment: Assets have been reconciled between the systems. Ongoing processes have been established to keep the systems synchronized. Project costs are transferred from Oracle to Infor accurately. Maintenance has also implemented the maintenance management dashboard to capture details that helps address this need.</p> <p>Goal: Investigate the feasibility of a data warehouse to pull information from among many different sources and be saved in many different formats.</p> <p>Accomplishment: Storage project completed May 2015. District storage tiers created to meet data requirements and minimize costs.</p>
Finance	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Goal: Review CAP assets and identify opportunities for income generation, increased utilization, disposal and/or reduction liability.</p> <p>Accomplishment: Improved workflows have resulted in more expedited processes and identified reduction in staff time. 2014 inventory improvements in IT disposals. Disposal Team continues to improve processes.</p>
	Review CAP assets and identify opportunities	<p>Goal: Review CAWCD's captive insurance company to determine if optimally domiciled.</p> <p>Accomplishment: Completed review in 2014 and presented findings to CAWCD board. Current domicile is still the most appropriate choice.</p>
	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	<p>Goal: Evaluate methodologies to address rate impacts of shortage.</p> <p>Accomplishment: The 2015-16 rate discussions with the Board and stakeholders discussed a shortage scenario. Methodologies for implementation of the rate stabilization fund were discussed. In addition, the Board approved the staff proposal for a voluntary Supplemental Shortage Rate Stabilization Fund Program.</p>
Project Reliability	Develop an IT strategic plan, governance framework and enterprise architecture to align IT strategies with business and operational strategies	<p>Goal: Develop an IT strategic plan, governance framework and enterprise architecture to align IT strategies with business and operational strategies.</p> <p>Accomplishment: Technology strategy draft completed. New Technology Strategy Committee formed in 2015. Initial work focused on governance and licensing.</p>

FINANCE & ADMINISTRATION  
**ACCOMPLISHMENTS - 2014 AND 2015**

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Project Reliability	Establish an Enterprise Risk Management program	<p>Goal: Create a decision-making framework that evaluates and mitigates risks of varying levels and types (e.g., business, technology, financial, workforce, property/infrastructure, operations, etc.)</p> <p>Accomplishment: Enterprise Risk Management certificate obtained and ISO 31000 implementation training completed. Continuing steps to formalize process and document successes.</p>
	Prepare for business disasters and threats	<p>Goal: Protect and secure CAP's IT assets and information. Protect sensitive business information, vital records and preserve historical information.</p> <p>Accomplishment: Successful completion of DR exercises. Outages affecting critical applications were recovered in a timely fashion. No critical incidents or hacking issues. Additional network, application and vulnerability monitoring installed.</p>
	Improve technology management	<p>Goal: Review GIS program: Link 3-D modeling and Geographical Information System (GIS) functions, streamline sharing of GIS data with internal and external customers, clarify relationship between the IT GIS program and Project Management's GIS functions.</p> <p>Accomplishment: Developed a mobile application for Maintenance. Working with the surveyors to integrate applications and data. Working to acquire hi-resolution, canal-wide imagery to build 3D topographical (topo) models of the canal.</p>
	Establish CAP as the regional "Employer of Choice"	<p>Goal: Continue programs that promote diversity in the workplace including building a workforce that reflects the communities that CAP serves. Maintain a competitive pay and benefits program and comply with federal healthcare reform requirements. Continue to manage low employee turnover.</p> <p>Accomplishment: Delivered four diversity-focused Lunch and Learn activities for employees. Continuing to recruit historically under-represented groups, including Native Americans, workers with disabilities and Lesbian, Gay, Bisexual and Transgender (LGBT). Continuing to conduct salary surveys to ensure external competitiveness and internal equity and fairness. Turnover and time to fill remain within established parameters.</p>
	Maintain high levels of skills and job proficiency among employees	<p>Goal: Improve pay for performance system within the organization-wide framework focusing on job levels, descriptions, and career paths, requirements for future roles, training and compensation.</p> <p>Accomplishment: Reviewed and reduced number of current position descriptions and job families. On-line performance planning and evaluation tool has been integrated into Oracle. Redesigned pay grade structure introduced in 2015 that incorporates all three pay programs (i.e., administrative/ professional/ technical, engineering).</p>

FINANCE & ADMINISTRATION  
**ACCOMPLISHMENTS - 2014 AND 2015**

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
		<p>Goal: Audit benefit administration capabilities and propose appropriate revisions. Audit online recruiting processes, investigate best practices available, propose changes and implement as approved.</p> <p>Accomplishment: Audits completed with minimal discrepancies noted. Worked with internal focus groups to reduce time to fill vacant positions. Created fast track process to assist managers and supervisors with the hiring process. Implemented processes to streamline advancements.</p> <hr/> <p>Goal: Assist and support an energy audit of CAP facilities and development of a sustainability-based energy reduction and conservation program through prudent management of all CAP facilities.</p> <p>Accomplishment: Converted lighting at CAP HQ to reduce energy consumption. Motion sensors installed in all offices and conference rooms at Headquarters. Replaced halogen lighting with LED technology. Committed Load Reduction program with Arizona Public Service (APS) produces compensation and active participation in a real-time outage exercise at Headquarters.</p> <hr/> <p>Goal: Provide a mechanism for internal transference of information gained from training.</p> <p>Accomplishment: Implemented Quality Standards for training developed in-house. Evaluating internal training for transfer knowledge.</p>
Project Reliability		<p>Goal: Successfully complete all requirements necessary for CAP to recertify as a VPP site and reduce/eliminate workplace injuries, illnesses and preventable vehicle accidents.</p> <p>Accomplishment: CAP recertified as a VPP site in 2014, with a recertification period of five years, rather than the usual three. In 2014 and 2015 CAP experienced record low numbers of recordable injuries and illnesses.</p>
	Maintain a safe, healthy and secure working environment	<p>Goal: Promote healthy habits in the workforce. Enhance the CAP Wellness Program to focus on multiple health-related factors.</p> <p>Accomplishment: May 2015: CAP Wellness facilitated and implemented three annual challenges: 1) LiveLean Team challenge; 2) "Go the Extra" exercise challenge; and 3) "Maintain Don't Gain" holiday challenge. A bonus stair climb challenge, "Step Up", was launched in 2015 in conjunction with the elevator modernization project. Wellness also continues to offer four or five health/wellness classes each year. A record number of employees (280) participated in the blood draw during the 2015 Safety Week health expo. Finally, heart health screenings were also offered in late 2014 and early 2015.</p>
	Recruitment and succession planning	<p>Goal: Expand the Succession Planning Program beyond current position specific focus to identify high potential candidates that might benefit the organization in a number of roles.</p> <p>Accomplishment: Leadership Development Program established to provide high potential employees growth/development opportunities through internal department rotations and leadership training.</p>

FINANCE & ADMINISTRATION  
**ACCOMPLISHMENTS - 2014 AND 2015**

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
	Training	<p>Goal: Develop a robust supervisory/management training program.</p> <p>Accomplishment: Supervisor Academy began April 2015. Annual program will include existing supervisors and non-supervisors to enhance skills.</p>
		<p>Goal: Conduct a system-wide spatial analysis</p> <p>Accomplishment: Completed in 2013. Implemented recommendations in 2014. Design of multi-purpose renovation completed 2014, with anticipated completion of Multi-Purpose Room (MPR) in 2015 and Server Room completion by end of 2016.</p>
Project Reliability	Promote environmental sustainability	<p>Goal: Enhance environmental program to achieve high level of regulatory and policy compliance.</p> <p>Accomplishment: Environmental partnership committee continues to be an effective method to help ensure environmental compliance. When maintenance and environmental department representatives are working together, problems are quickly resolved. Opportunities to correct have been reduced and those that pop-up are resolved quickly.</p>
		<p>Goal: Continued improvement in existing waste reduction, management and diversion programs.</p> <p>Accomplishment: Recycling and reuse efforts are approaching the targeted level of sustainability. Our most recent audit shows a 93% compliance rate. The organization recycles and/or reuses most of what's generated, with very little making its way into landfills. Efforts to educate employees continues. Car pooling has increased in Maricopa County through prudent management of program. Environmental sustainability was promoted at Safety Week as well as increased recycling program to all pumping plant sites in 2015.</p>
	Encourage community involvement	<p>Goal: Participate in new Arizona Department of Environmental Quality (ADEQ), Arizona Environmental Stewardship Program (AESP) and achieve higher level within program.</p> <p>Accomplishment: Evaluating the program to determine if CAP's participation would be a worthwhile endeavor.</p>
Water Supply	Obtain sufficient water supplies to meet long-term replenishment obligation and ADD Water requirements	<p>Goal: Develop and implement revenue generation mechanisms such as bonding, rates and fees, that are sufficient to carry out water supply acquisition plan.</p> <p>Accomplishment: Bonding for transmission projects in 2015. Groundwork for potential CAGR D bonding in 2016. Rate recommendation evaluated during creation of the 2015 Plan of Operation.</p>

FINANCE & ADMINISTRATION  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Finance	Maintain a rate-setting methodology that accurately reflects cost of service and provides for transparency and predictability	<p>Evaluate various methodologies for implementation of rate stabilization funds and develop items of consideration for senior management team (SMT) and Board review and decisions.</p> <p>Measure/Target: Scenarios and comparisons developed with a target of the end of 2016 (pending shortage determinations).</p> <hr/> <p>Ensure investments are balanced between safety and investment returns.</p> <p>Measure/Target: Evaluate State Treasurer investment types and amount of investments in short- and long-term with a target of performing review and possible recommendations by end of 2016.</p>
	Coordinate projected uses of funds with appropriate sources of financing	<p>Develop recommendations for property tax proceeds in the event of shortage.</p> <p>Measure/Target: Scenarios and comparisons developed with a target of the end of 2016 (pending shortage determinations).</p>
	Effectively communicate financial issues to Board and stakeholders	<p>Ensure independent audit reviews and other required financial communications are performed timely and accurately.</p> <p>Measure/Target: Reports and communications are provided in required timeframes. Provide periodic updates to the Board, as appropriate. With a target of all financial reporting and communications compiled and meeting reporting deadlines.</p> <hr/> <p>Evaluate impacts of official accounting changes and inform senior management and Board on financial implications.</p> <p>Measure/Target: Comply with all governmental accounting policies and procedures with a target of 100% compliance.</p>
	Optimize use of CAP assets to meet customer needs and generate opportunities to enhance revenues	<p>Obtain payment discounts and other related types of rebates to generate income or lower expenses when greater than interest income generated.</p> <p>Measure/Target: Amount of time to pay purchasing card (Pcard) ; payment discounts, with a target of maintaining payment of Pcard under an average of 10 days from billing date. Take advantage of payment discounts.</p>

FINANCE & ADMINISTRATION  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
		Reduce/eliminate workplace ergonomic injuries.  Measure/Target: 2016 / 2017 goal to be at or below the average rate of injuries for the previous three years .
		Reduce/eliminate workplace injuries and illnesses. Ensure a "Days Away, Restrictions and Transfers" (DART) rate at or below 0.9.  Measure/Target: Actual DART rate, quarterly and annual
		Promote healthy habits in the workforce. Enhance the wellness program to focus on multiple health-related factors.  Measure/Target: Maintain the current three wellness program initiatives and roll out a fourth program. Additionally, increase participation in all programs.
		Expand Wellness programs and services, including coaching and incentives, to insured dependents to promote life-long behavior change among employees and their families.  Measure/Target: Provide services to dependents of ten or more insured employees.
Project Reliability		Further reduce Preventable Vehicle Accidents (PVA) to below the average for the most recent three years.  Measure/Target: Number of PVAs.
		Enhance the environmental program to achieve a high level of regulatory and policy compliance.  Measure/Target: Achieve a 10% decrease in the number of Opportunities to Correct (OTC) from the previous year. Resolve 100% of any recurring OTCs.
	Promote Environmental Sustainability	Continued improvement in existing waste reduction, management and diversion programs  Measure/Target: Achieve a 10% increase in the volume of materials recycled or reused from previous year.
	Expand Maintenance Excellence to Enterprise Asset Management	Provide timely processes across the organization to enable cost-effective equipment replacement and repair  Measure/Target: Customer satisfaction.
	Prepare and plan for potential threats to CAP water operations	To assist with plans during table top exercises for Information Technologies (IT) and Water Control,  Measure/Target: How many exercises are performed, with a target of two exercises per year. - one with Business Disaster Resources (BDR) and one with the control room.

FINANCE & ADMINISTRATION  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Project Reliability	Protect the canal system from encroachment, trespassing, spread of crime and illegal dumping	<p>To make sure the canal is as safe as possible with continual patrolling on ground and air.</p> <p>Measure/Target: Flights conducted by Maricopa County Sheriff’s Office (MCSO) and agents, incident reports conducted by agents. With a target of at least 120 hours of security flights along the canal and complete 300 incident reports.</p>
	Establish an Enterprise Risk Management (ERM) program	<p>Create a decision-making framework utilizing ISO 31000 that evaluates and mitigates risks of varying levels and types (e.g., business, technology, financial, workforce, property/infrastructure, operations, etc.)</p> <p>Measure/Target: Organizational awareness of effect of uncertainty on objectives. With a target of continued exploration of opportunities for improvements within organization where ERM is used but not formalized, and introduce in areas not familiar with framework.</p>
	Improve technology management	<p>Be prepared administratively (e.g., regulatory, insurance, compliance) to respond to emerging technologies.</p> <p>Measure/Target: Response with minimal administrative delay as emerging technology beneficial to CAP is presented. With a target of balanced perceived advantages of emerging technology with appropriate assumption of risk.</p>
	Establish CAP as the regional “Employer of Choice”	<p>Maintain a competitive pay and benefits package.</p> <p>Measure/Target: Review benefits program annually and conduct external salary surveys on a two-year rotation.</p>
	Maintain high levels of skills and job proficiency among employees	<p>Conduct salary surveys that compare CAP to similar organizations and that reflect the breadth and range of skill sets within CAP positions.</p> <p>Measure/Target: Review salary survey data and compare it to previous years and review data against internal and external jobs.</p> <p>Increase employee and management self-service within five years. Implement new employee performance management system, improve recruitment capabilities, and improve benefits administration.</p>
	Protect and secure CAP’s Information Technology assets and information. Protect sensitive business information, vital records and preserve historical information.	<p>Complete disaster recovery exercises and monitor network for suspicious activity; install, run and upgrade anti-virus and anti-spyware; upgrade equipment to maintain highest levels of security; employ Internet filters, email filters and firewalls; require dual authentication to access systems.</p> <p>Measure/Target: Three disaster recovery exercises. Improve availability, security and recoverability of CAP data (upgrade of tools). Testing and recovery of 15 critical business applications. Align data integration projects with goal of improved management of data life cycle.</p>

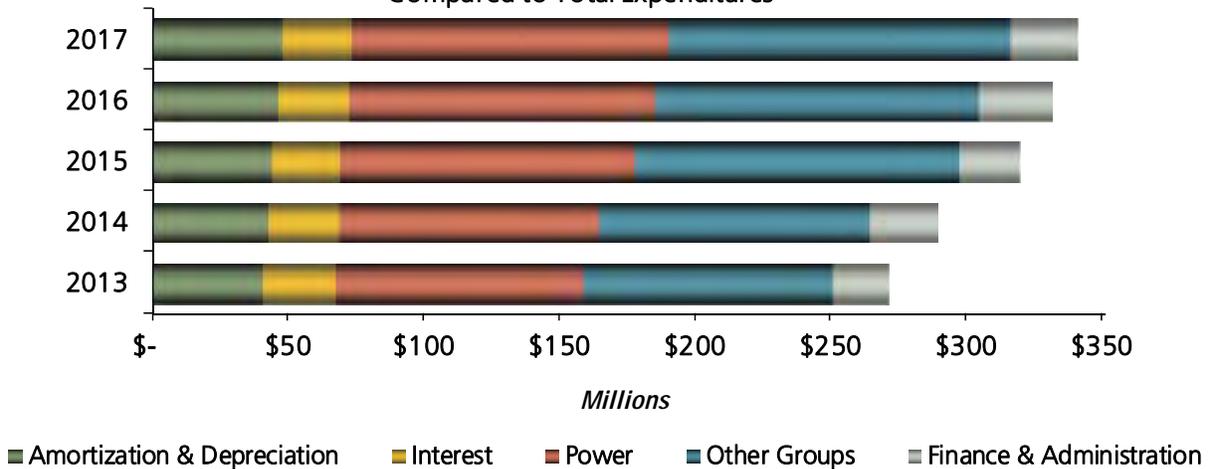
FINANCE & ADMINISTRATION  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Project Reliability	Develop IT strategic plan, governance framework and enterprise architecture to align IT strategies with business and operational strategies	<p>Develop technology cloud committee and combine or eliminate redundant efforts and create enterprise architecture program.</p> <p>Measure/Target: Assist with the creation of a technology cloud committee by 7/31/2015 and define enterprise architecture, implement an enterprise architecture program with specific goals as it relates to CAP requirements (size the effort correctly) .</p>
		<p>Improve system reliability through equipment refresh and process improvements. Consideration of business continuity for the 15 critical systems that include enterprise applications and automate processes where feasible.</p>
	Prepare and plan for potential threats to CAP water operations	<p>Measure/Target: Reduce unplanned system outages to less than 12 per year; monthly reports will track outages. Research next generation technologies which includes:</p> <ol style="list-style-type: none"> <li>1) Implementing virtual routing to isolate control networks from production networks; this allows use of the same infrastructure but logically separates them;</li> <li>2) Implementing use of a sinkhole network to mitigate impact of a DOS attack;</li> <li>3) Implement device profiling technologies.</li> </ol>
		<p>Provide development for employees in Succession Planning for supervisory positions and skills enhancement for existing supervisors through CAP's Supervisor Academy.</p>
Leadership & Public Trust	Develop a robust supervisory/ management training program	<p>Measure/Target: Successful participant completion of Academy and Leadership Development Program continuation.</p> <p>Continue use of Personal and Organizational Development Process (POD) at CAP.</p> <p>Measure/Target: Develop 2 e-learning courses and use POD competencies as basis for employee development courses.</p>
	Provide a mechanism for internal transference of Information gained from training	<p>Develop process and standards for all training/development at CAP.</p> <p>Measure/Target: Completion of training evaluation at CAP, including off-site training, and development and rollout of Job Training Standards for all Apprentice trades</p>
	Further develop amount and type of content presented electronically to internal and external entities	<p>Complete build of web service projects to share information with CAP internal and external customers.</p> <p>Measure/Target: Complete Water Management System phase 5 by 12/31/2016. Complete 2 mobile projects each calendar year to support internal / external customers with access to business applications. Upgrade remote access capabilities to allow users more flexibility. Complete upgrades by 12/31/2016.</p>

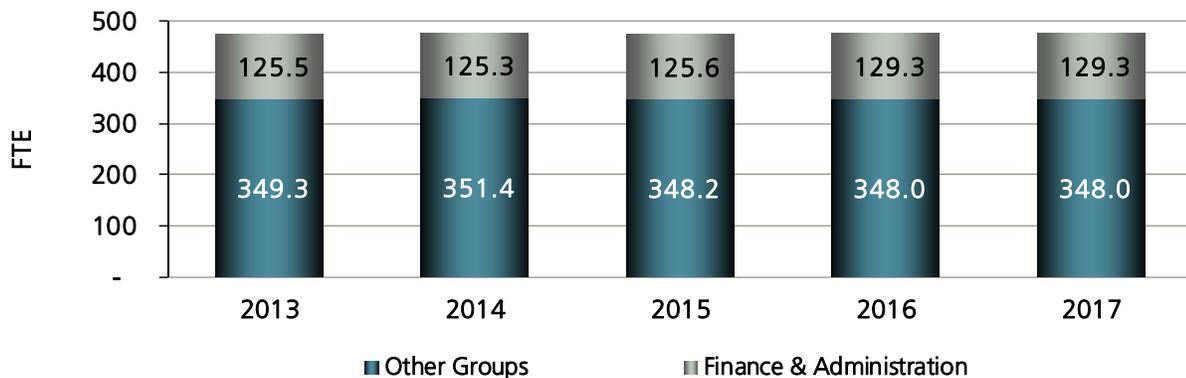
# FINANCE & ADMINISTRATION BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 9,589.5	\$ 9,780.3	\$ 9,836.4	\$ 10,407.4	\$ 10,736.4
Outside services	6,198.7	7,054.3	7,937.7	7,975.6	7,962.0
Materials & supplies	1,397.8	1,497.0	1,927.4	1,794.9	1,666.0
Other expenses	1,776.0	1,903.0	2,134.8	2,651.8	2,642.7
<b>Total Operating Expenses</b>	<b>\$ 18,962.0</b>	<b>\$ 20,234.6</b>	<b>\$ 21,836.3</b>	<b>\$ 22,829.7</b>	<b>\$ 23,007.1</b>
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 18,962.0	\$ 20,234.6	\$ 21,836.3	\$ 22,829.7	\$ 23,007.1
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 18,962.0</b>	<b>\$ 20,234.6</b>	<b>\$ 21,836.3</b>	<b>\$ 22,829.7</b>	<b>\$ 23,007.1</b>
<b>Capital Expenditures</b>	<b>1,766.6</b>	<b>4,695.6</b>	<b>703.3</b>	<b>4,199.0</b>	<b>1,606.2</b>
<b>Total Expenditures</b>	<b>\$ 20,728.6</b>	<b>\$ 24,930.2</b>	<b>\$ 22,539.6</b>	<b>\$ 27,028.7</b>	<b>\$ 24,613.3</b>
<b>Staffing (FTE)</b>	<b>125.5</b>	<b>125.3</b>	<b>125.6</b>	<b>129.3</b>	<b>129.3</b>

Finance & Administration Expenditures  
Compared to Total Expenditures



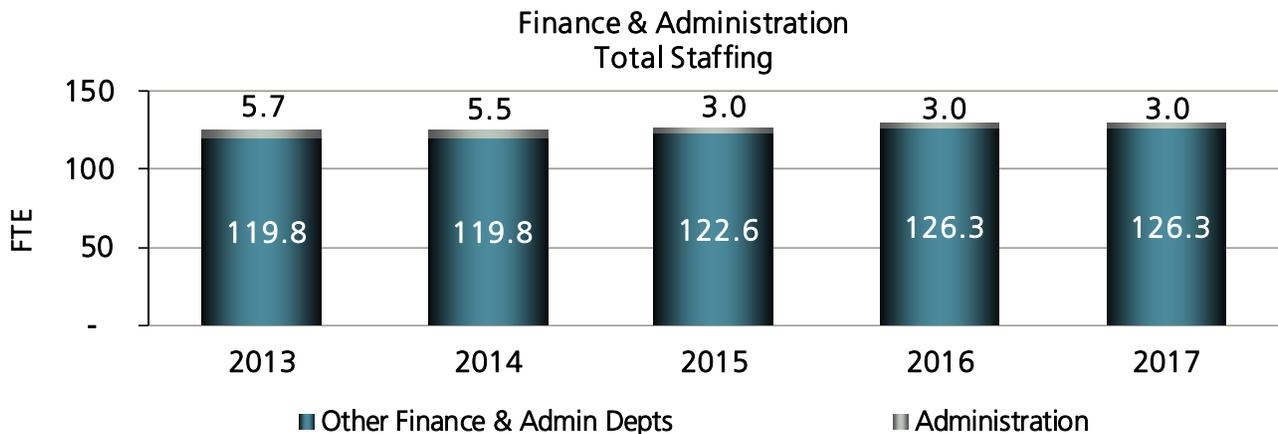
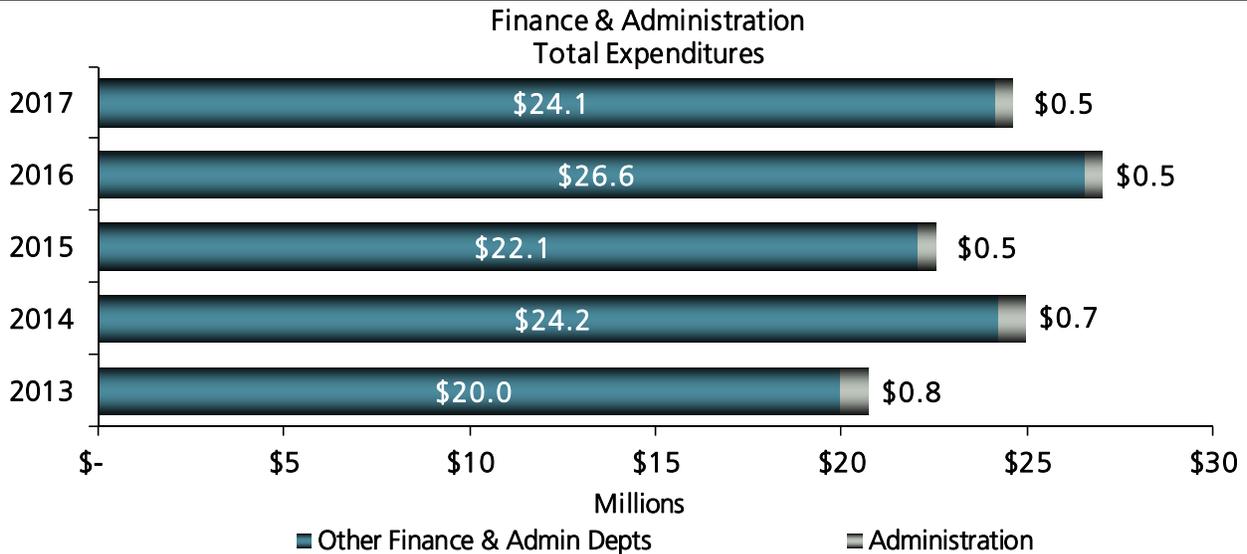
Finance & Administration Staffing  
Compared to Total Staffing



FINANCE & ADMINISTRATION  
ADMINISTRATION

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 717.5	\$ 665.4	\$ 430.5	\$ 439.6	\$ 452.8
Outside services	-	-	-	-	-
Materials & supplies	10.9	9.3	13.4	12.5	12.5
Other expenses	30.3	27.6	18.9	13.8	13.8
<b>Total Operating Expenses</b>	<b>\$ 758.7</b>	<b>\$ 702.3</b>	<b>\$ 462.8</b>	<b>\$ 465.9</b>	<b>\$ 479.1</b>

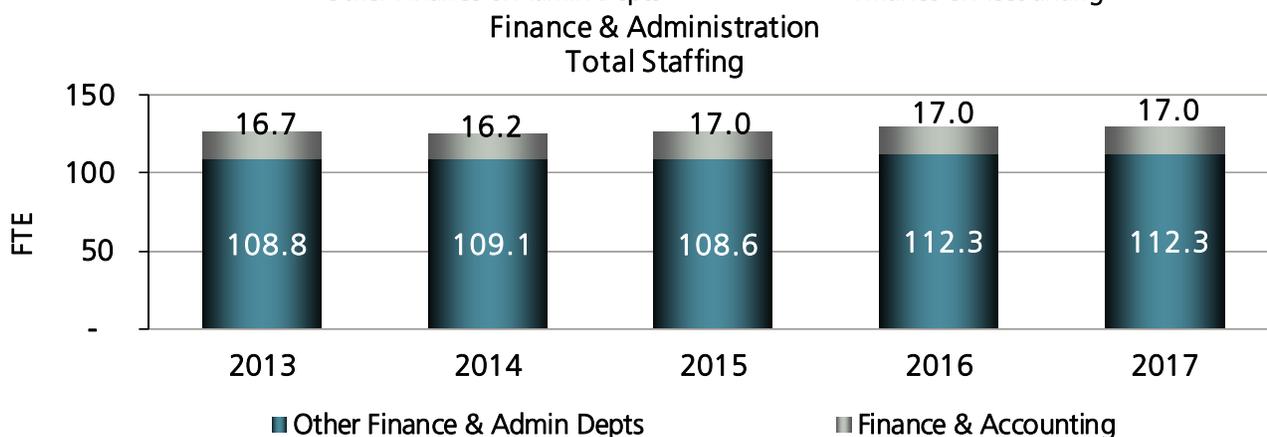
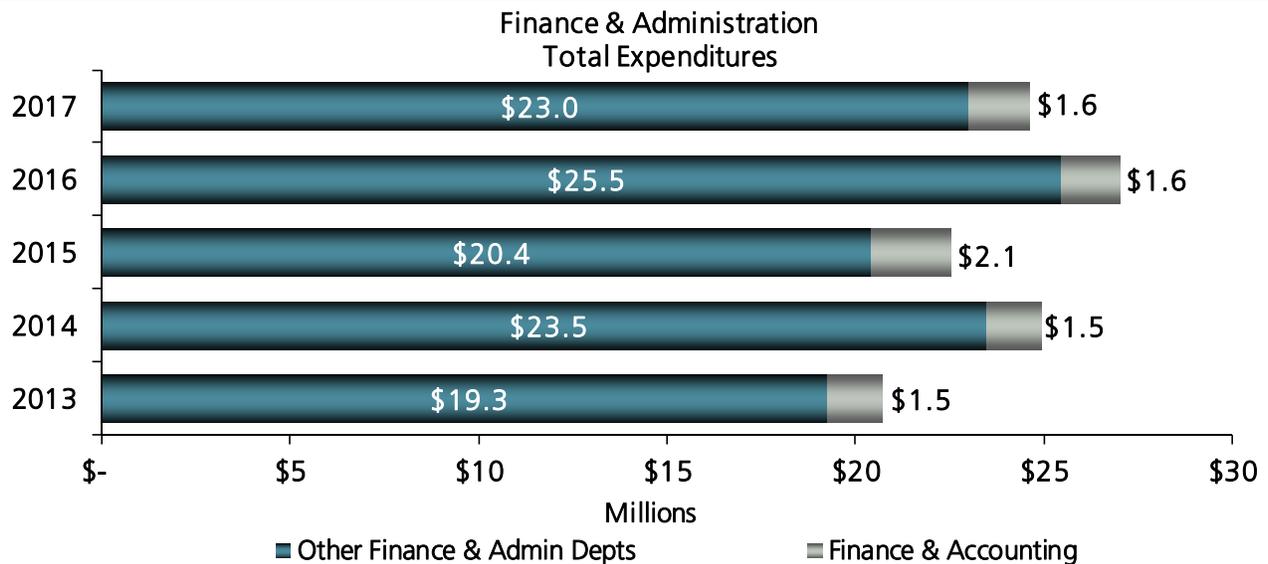
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 758.7	\$ 702.3	\$ 462.8	\$ 465.9	\$ 479.1
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 758.7</b>	<b>\$ 702.3</b>	<b>\$ 462.8</b>	<b>\$ 465.9</b>	<b>\$ 479.1</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 758.7</b>	<b>\$ 702.3</b>	<b>\$ 462.8</b>	<b>\$ 465.9</b>	<b>\$ 479.1</b>
Staffing (FTE)	5.7	5.5	3.0	3.0	3.0



FINANCE & ADMINISTRATION  
FINANCE & ACCOUNTING

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 1,195.3	\$ 1,178.5	\$ 1,233.4	\$ 1,276.9	\$ 1,317.7
Outside services	238.2	249.3	807.9	234.5	242.0
Materials & supplies	7.4	1.2	9.5	5.7	6.7
Other expenses	24.5	26.2	48.7	48.9	48.9
<b>Total Operating Expenses</b>	<b>\$ 1,465.4</b>	<b>\$ 1,455.2</b>	<b>\$ 2,099.5</b>	<b>\$ 1,566.0</b>	<b>\$ 1,615.3</b>

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,465.4	\$ 1,455.2	\$ 2,099.5	\$ 1,566.0	\$ 1,615.3
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,465.4</b>	<b>\$ 1,455.2</b>	<b>\$ 2,099.5</b>	<b>\$ 1,566.0</b>	<b>\$ 1,615.3</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,465.4</b>	<b>\$ 1,455.2</b>	<b>\$ 2,099.5</b>	<b>\$ 1,566.0</b>	<b>\$ 1,615.3</b>
Staffing (FTE)	16.7	16.2	17.0	17.0	17.0



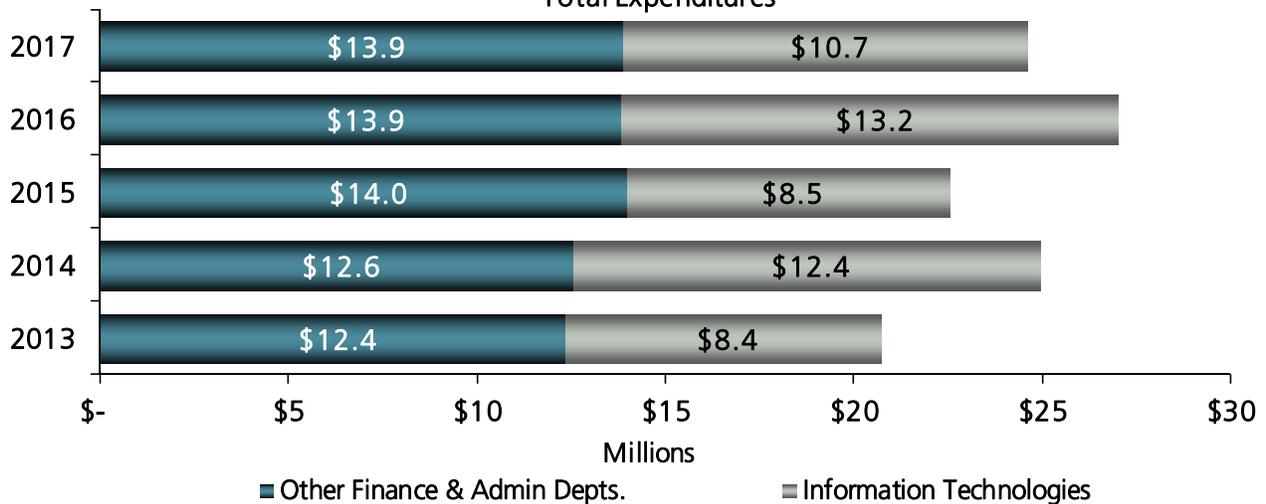
FINANCE & ADMINISTRATION  
INFORMATION TECHNOLOGIES

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 3,206.9	\$ 3,327.7	\$ 3,506.3	\$ 3,671.4	\$ 3,786.2
Outside services	2,838.0	3,797.2	3,429.3	4,159.4	4,233.1
Materials & supplies	510.9	535.3	642.0	768.2	666.2
Other expenses	207.2	278.1	341.6	510.5	510.9
<b>Total Operating Expenses</b>	<b>\$ 6,763.0</b>	<b>\$ 7,938.3</b>	<b>\$ 7,919.2</b>	<b>\$ 9,109.5</b>	<b>\$ 9,196.4</b>

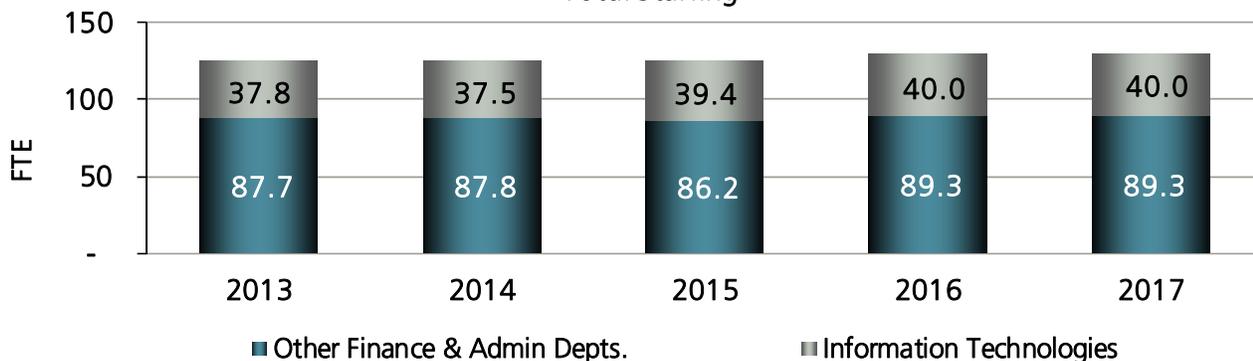
Expenditures by Fund

Operating Expenses					
General Fund	\$ 6,763.0	\$ 7,938.3	\$ 7,919.2	\$ 9,109.5	\$ 9,196.4
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 6,763.0</b>	<b>\$ 7,938.3</b>	<b>\$ 7,919.2</b>	<b>\$ 9,109.5</b>	<b>\$ 9,196.4</b>
Capital Expenditures	1,590.4	4,435.7	613.2	4,061.5	1,533.2
<b>Total Expenditures</b>	<b>\$ 8,353.4</b>	<b>\$ 12,374.0</b>	<b>\$ 8,532.4</b>	<b>\$ 13,171.0</b>	<b>\$ 10,729.6</b>
Staffing (FTE)	37.8	37.5	39.4	40.0	40.0

Finance & Administration  
Total Expenditures



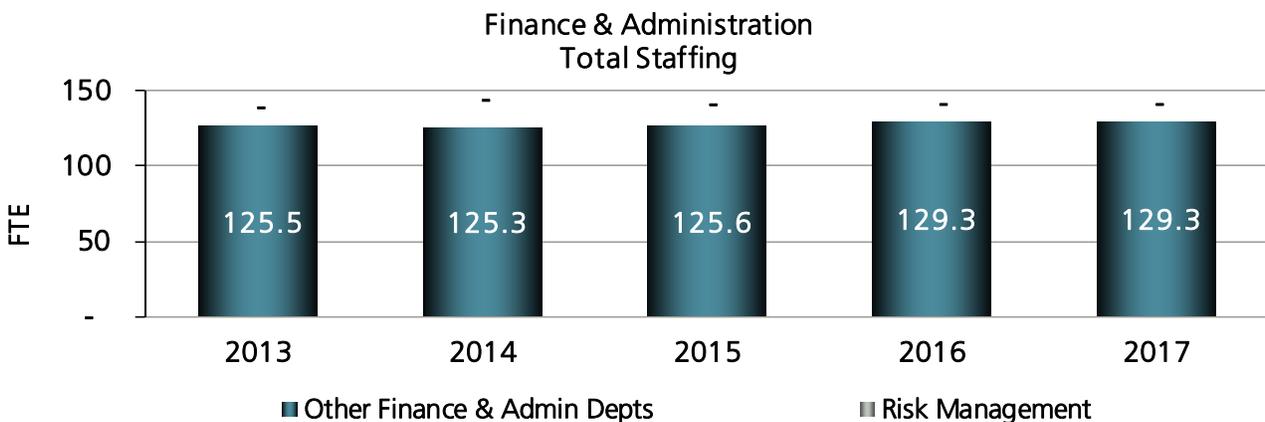
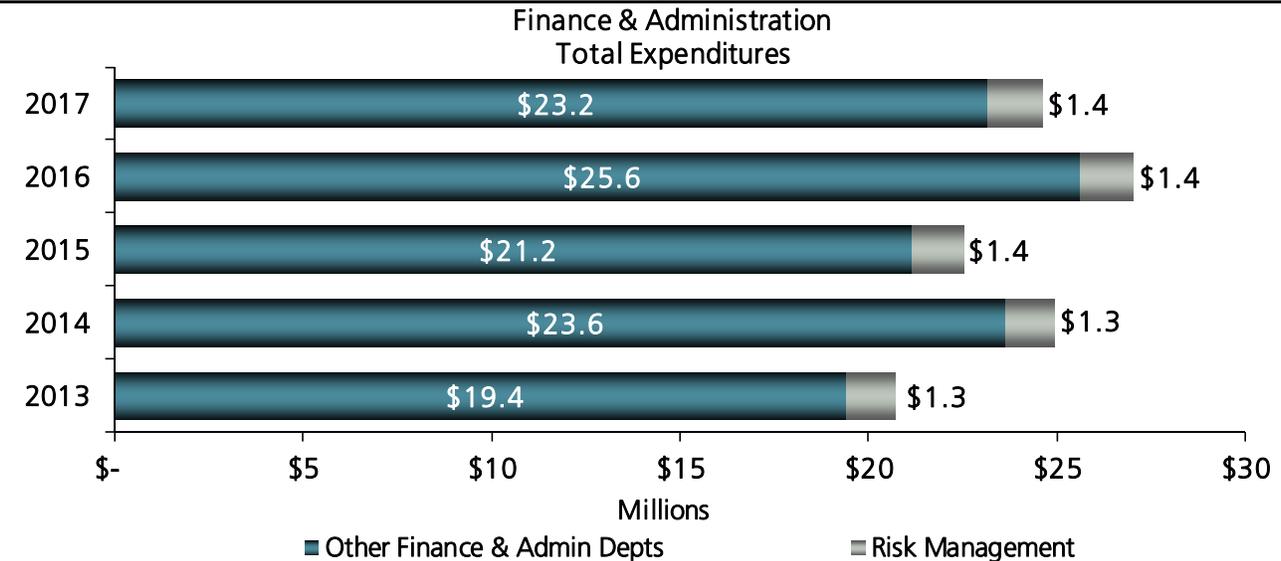
Finance & Administration  
Total Staffing



FINANCE & ADMINISTRATION  
RISK MANAGEMENT

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ -	\$ -	\$ -	\$ -	\$ -
Outside services	93.5	89.4	91.2	89.5	89.5
Materials & supplies	0.5	2.0	-	-	-
Other expenses	1,226.8	1,190.3	1,285.5	1,322.9	1,348.3
<b>Total Operating Expenses</b>	<b>\$ 1,320.8</b>	<b>\$ 1,281.7</b>	<b>\$ 1,376.7</b>	<b>\$ 1,412.4</b>	<b>\$ 1,437.8</b>

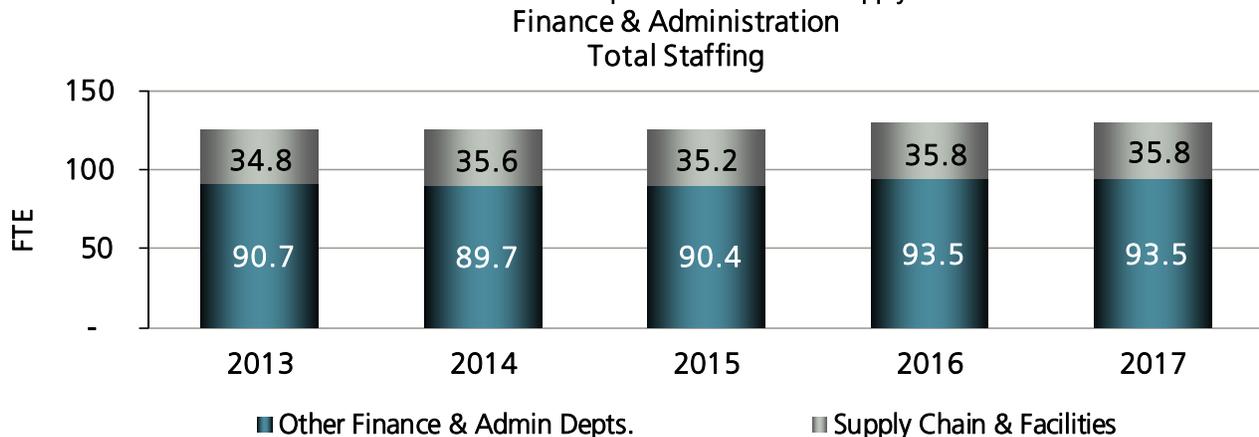
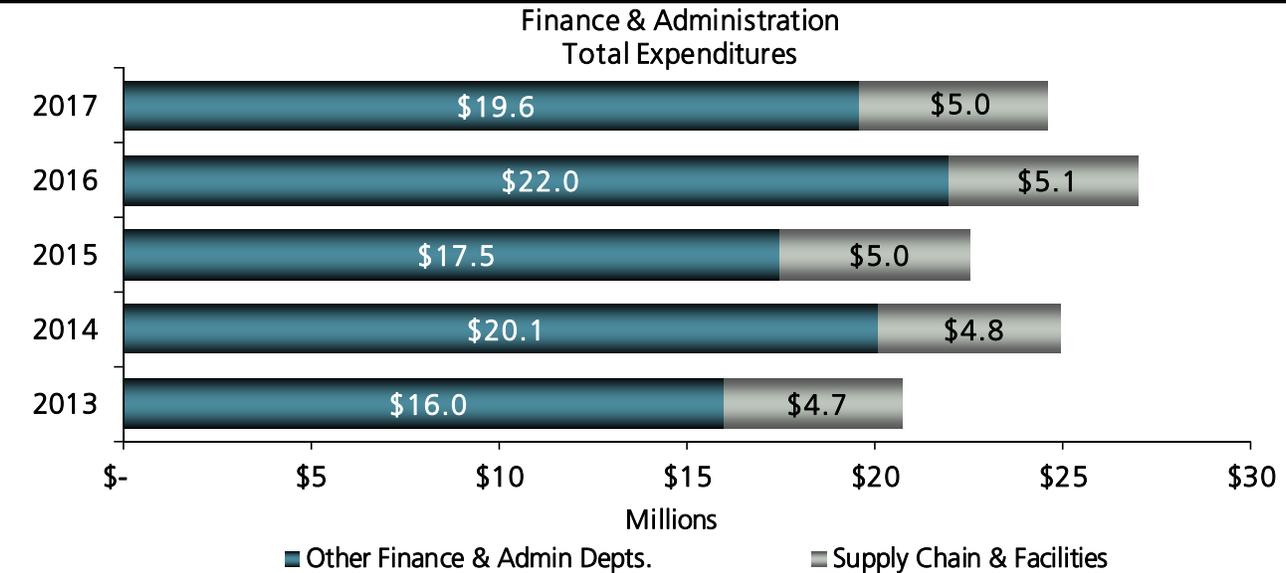
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,320.8	\$ 1,281.7	\$ 1,376.7	\$ 1,412.4	\$ 1,437.8
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,320.8</b>	<b>\$ 1,281.7</b>	<b>\$ 1,376.7</b>	<b>\$ 1,412.4</b>	<b>\$ 1,437.8</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,320.8</b>	<b>\$ 1,281.7</b>	<b>\$ 1,376.7</b>	<b>\$ 1,412.4</b>	<b>\$ 1,437.8</b>
Staffing (FTE) included with Admin	-	-	-	-	-



FINANCE & ADMINISTRATION  
SUPPLY CHAIN & FACILITIES

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 2,232.3	\$ 2,348.4	\$ 2,351.1	\$ 2,494.0	\$ 2,581.1
Outside services	1,528.8	1,281.7	1,429.2	1,572.5	1,512.6
Materials & supplies	729.2	828.6	1,082.5	832.3	803.3
Other expenses	64.5	80.7	91.0	94.7	101.0
<b>Total Operating Expenses</b>	<b>\$ 4,554.8</b>	<b>\$ 4,539.4</b>	<b>\$ 4,953.8</b>	<b>\$ 4,993.5</b>	<b>\$ 4,998.0</b>

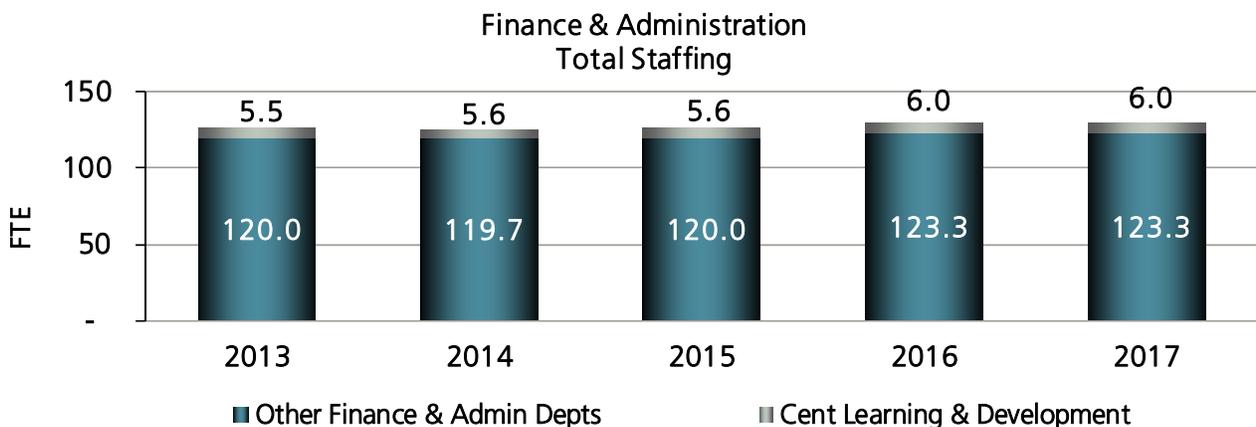
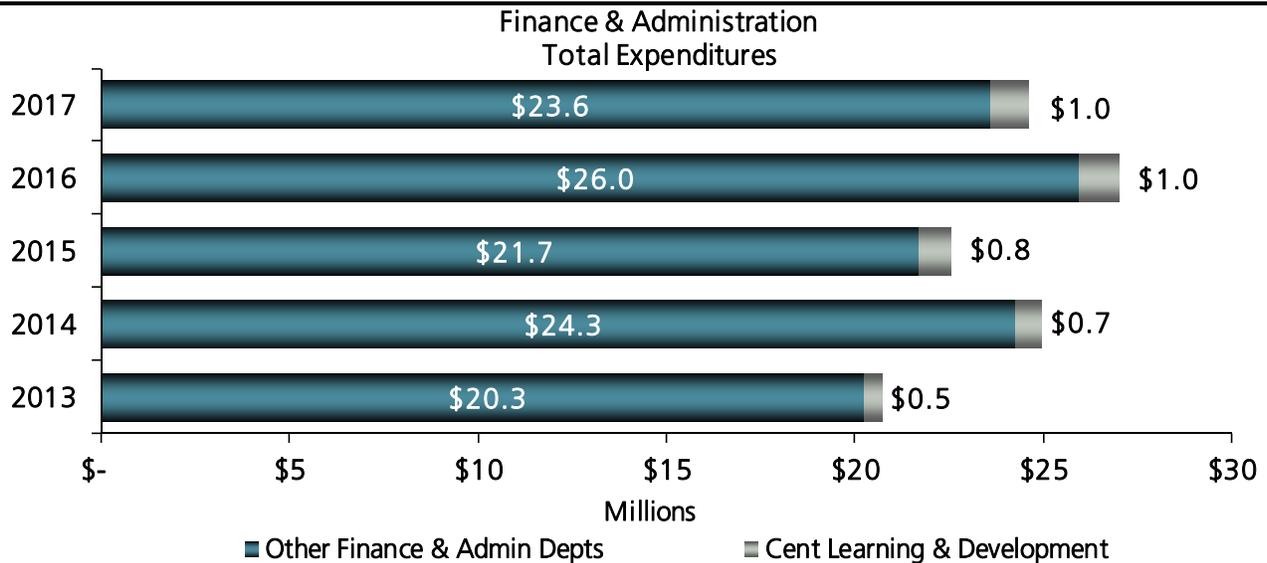
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,554.8	\$ 4,539.4	\$ 4,953.8	\$ 4,993.5	\$ 4,998.0
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 4,554.8</b>	<b>\$ 4,539.4</b>	<b>\$ 4,953.8</b>	<b>\$ 4,993.5</b>	<b>\$ 4,998.0</b>
Capital Expenditures	171.3	259.9	90.1	77.3	23.6
<b>Total Expenditures</b>	<b>\$ 4,726.1</b>	<b>\$ 4,799.3</b>	<b>\$ 5,043.9</b>	<b>\$ 5,070.8</b>	<b>\$ 5,021.6</b>
Staffing (FTE)	34.8	35.6	35.2	35.8	35.8



FINANCE & ADMINISTRATION  
CENTRALIZED LEARNING & DEVELOPMENT

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 422.9	\$ 424.8	\$ 420.9	\$ 466.9	\$ 479.9
Outside services	-	76.7	245.0	98.0	93.5
Materials & supplies	1.3	5.3	4.4	3.0	3.0
Other expenses	41.4	146.5	172.7	421.6	400.5
<b>Total Operating Expenses</b>	<b>\$ 465.6</b>	<b>\$ 653.3</b>	<b>\$ 843.0</b>	<b>\$ 989.5</b>	<b>\$ 976.9</b>

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 465.6	\$ 653.3	\$ 843.0	\$ 989.5	\$ 976.9
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 465.6</b>	<b>\$ 653.3</b>	<b>\$ 843.0</b>	<b>\$ 989.5</b>	<b>\$ 976.9</b>
Capital Expenditures	-	-	-	60.2	49.4
<b>Total Expenditures</b>	<b>\$ 465.6</b>	<b>\$ 653.3</b>	<b>\$ 843.0</b>	<b>\$ 1,049.7</b>	<b>\$ 1,026.3</b>
Staffing (FTE)	5.5	5.6	5.6	6.0	6.0



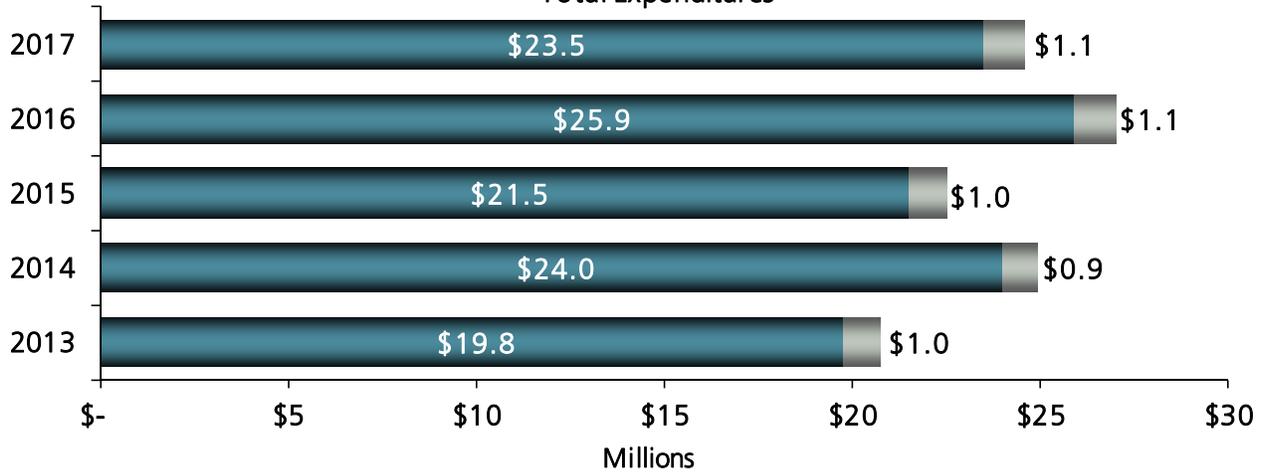
FINANCE & ADMINISTRATION  
 ENVIRONMENTAL, HEALTH & SAFETY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 691.6	\$ 730.3	\$ 773.0	\$ 817.7	\$ 842.2
Outside services	135.7	71.8	74.2	110.5	106.1
Materials & supplies	57.2	43.6	70.3	61.7	62.8
Other expenses	90.1	96.6	99.0	141.6	120.0
<b>Total Operating Expenses</b>	<b>\$ 974.6</b>	<b>\$ 942.3</b>	<b>\$ 1,016.5</b>	<b>\$ 1,131.5</b>	<b>\$ 1,131.1</b>

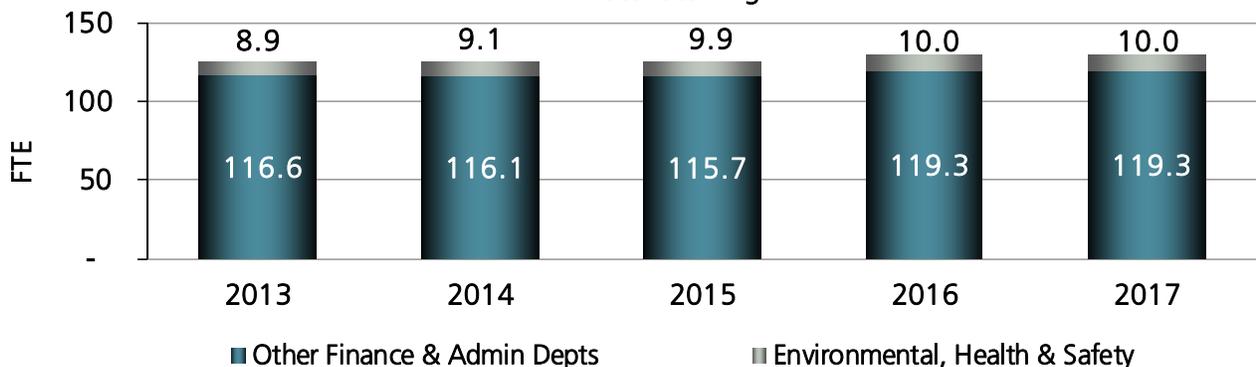
Expenditures by Fund

Operating Expenses					
General Fund	\$ 974.6	\$ 942.3	\$ 1,016.5	\$ 1,131.5	\$ 1,131.1
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 974.6</b>	<b>\$ 942.3</b>	<b>\$ 1,016.5</b>	<b>\$ 1,131.5</b>	<b>\$ 1,131.1</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 974.6</b>	<b>\$ 942.3</b>	<b>\$ 1,016.5</b>	<b>\$ 1,131.5</b>	<b>\$ 1,131.1</b>
Staffing (FTE)	8.9	9.1	9.9	10.0	10.0

Finance & Administration  
 Total Expenditures



Finance & Administration  
 Total Staffing

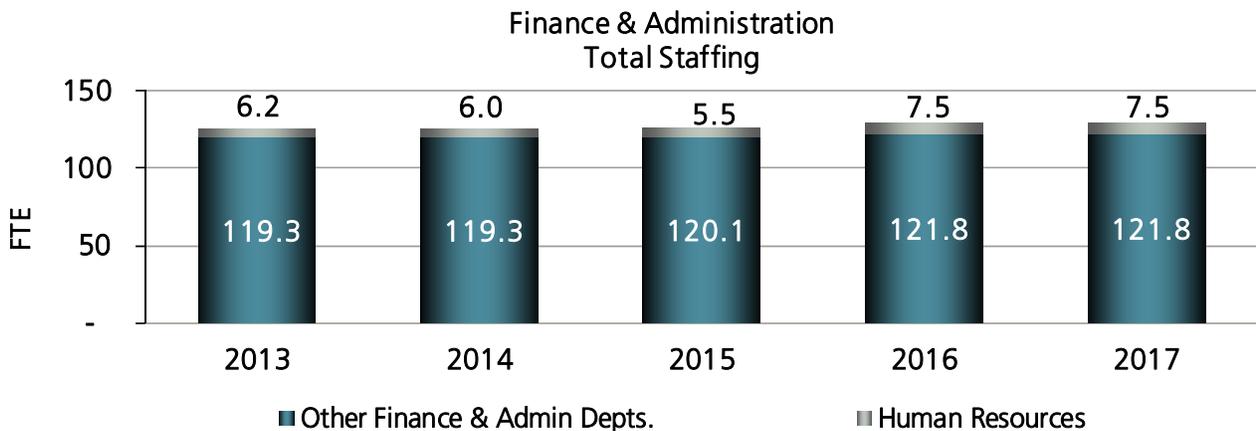
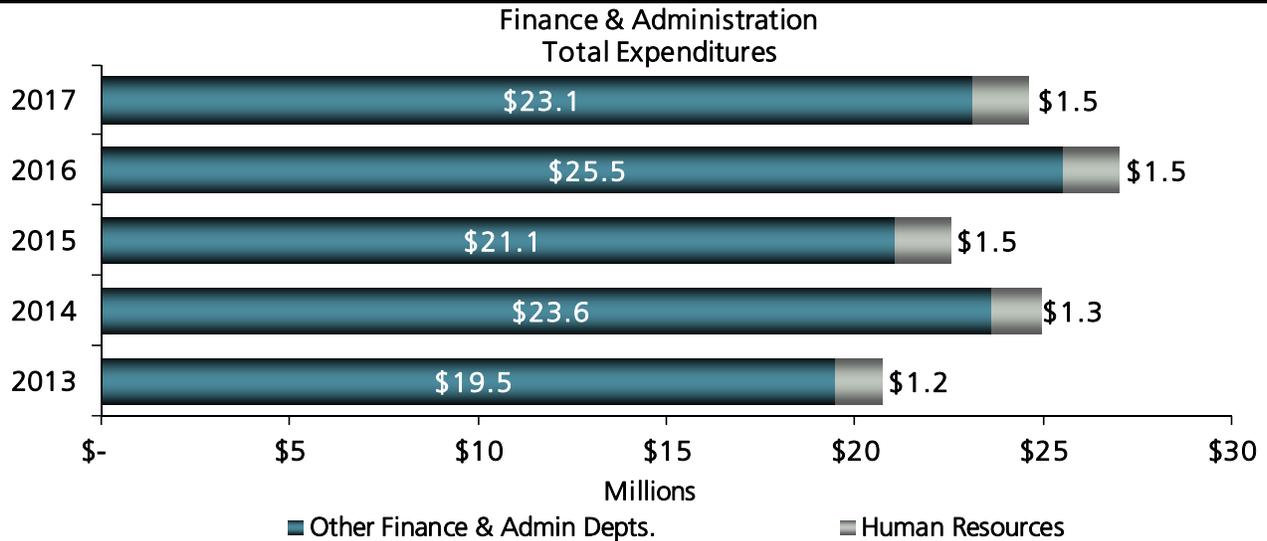


FINANCE & ADMINISTRATION  
HUMAN RESOURCES

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 450.6	\$ 444.2	\$ 435.0	\$ 530.2	\$ 544.7
Outside services	670.9	814.8	979.0	861.2	835.2
Materials & supplies	4.1	1.0	4.9	4.5	4.5
Other expenses	84.8	49.9	63.3	83.2	84.7
<b>Total Operating Expenses</b>	<b>\$ 1,210.4</b>	<b>\$ 1,309.9</b>	<b>\$ 1,482.2</b>	<b>\$ 1,479.1</b>	<b>\$ 1,469.1</b>

Expenditures by Fund

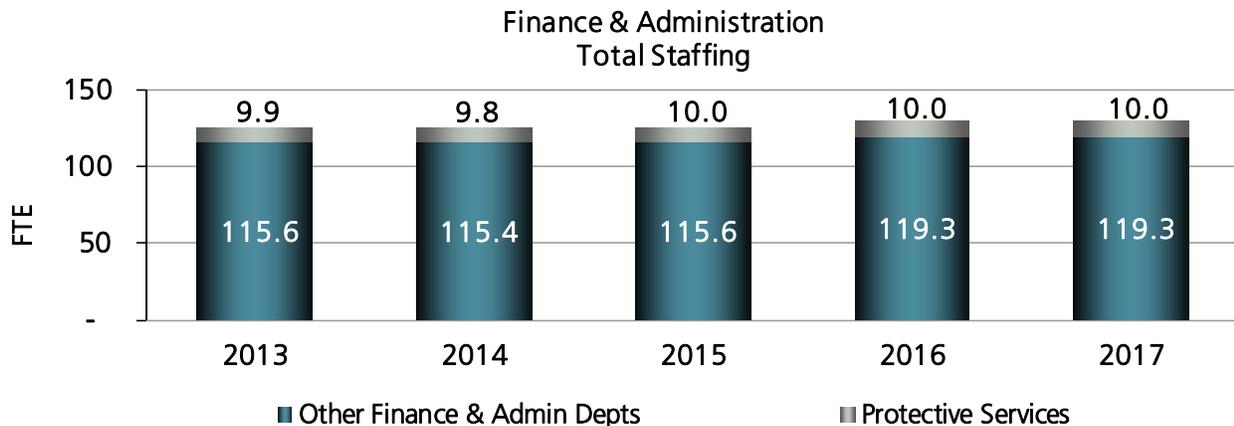
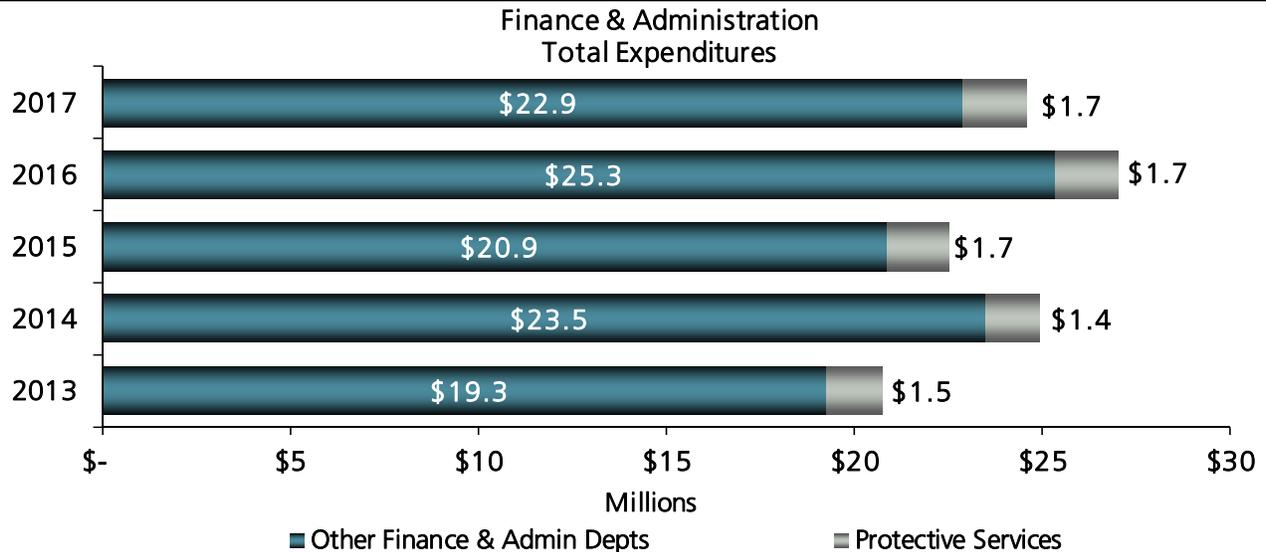
Operating Expenses					
General Fund	\$ 1,210.4	\$ 1,309.9	\$ 1,482.2	\$ 1,479.1	\$ 1,469.1
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,210.4</b>	<b>\$ 1,309.9</b>	<b>\$ 1,482.2</b>	<b>\$ 1,479.1</b>	<b>\$ 1,469.1</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,210.4</b>	<b>\$ 1,309.9</b>	<b>\$ 1,482.2</b>	<b>\$ 1,479.1</b>	<b>\$ 1,469.1</b>
Staffing (FTE)	6.2	6.0	5.5	7.5	7.5



FINANCE & ADMINISTRATION  
**PROTECTIVE SERVICES**

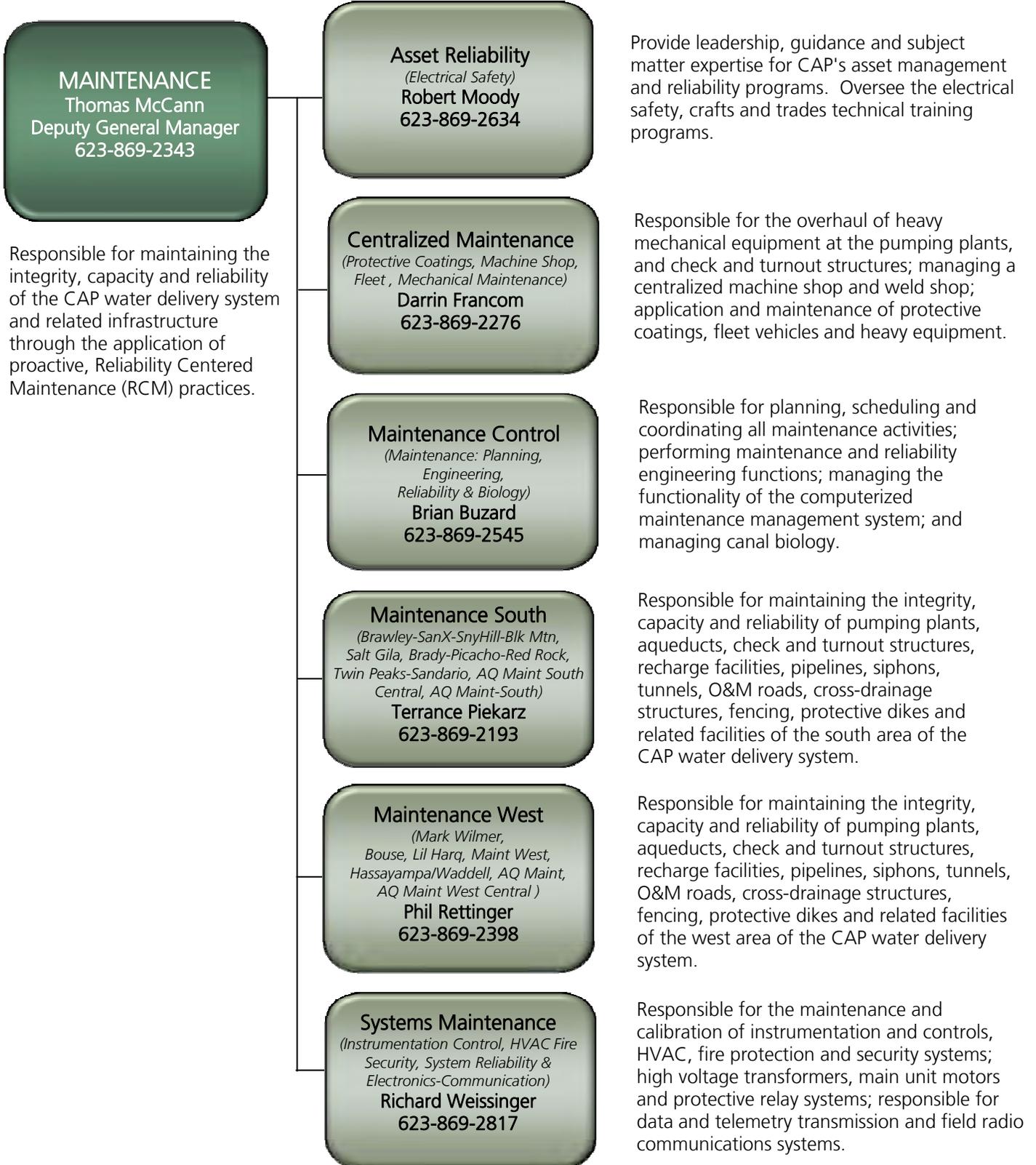
(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 672.4	\$ 661.0	\$ 686.2	\$ 710.7	\$ 731.8
Outside services	693.6	673.4	881.9	850.0	850.0
Materials & supplies	76.3	70.7	100.4	107.0	107.0
Other expenses	6.4	7.1	14.1	14.6	14.6
<b>Total Operating Expenses</b>	<b>\$ 1,448.7</b>	<b>\$ 1,412.2</b>	<b>\$ 1,682.6</b>	<b>\$ 1,682.3</b>	<b>\$ 1,703.4</b>

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,448.7	\$ 1,412.2	\$ 1,682.6	\$ 1,682.3	\$ 1,703.4
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,448.7</b>	<b>\$ 1,412.2</b>	<b>\$ 1,682.6</b>	<b>\$ 1,682.3</b>	<b>\$ 1,703.4</b>
Capital Expenditures	4.9	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,453.6</b>	<b>\$ 1,412.2</b>	<b>\$ 1,682.6</b>	<b>\$ 1,682.3</b>	<b>\$ 1,703.4</b>
Staffing (FTE)	9.9	9.8	10.0	10.0	10.0



# 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.



MAINTENANCE

ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Finance	Maintaining CAP's financial health	<p>Goal: Responsibly manage 2014 / 2015 expense budget by ensuring actual expenses do not exceed 2% over and are not less than 5% under approved budget.</p> <p>Accomplishment: The Maintenance Group had an actual budget variance in 2014 / 2015 of 1.5% under budget.</p>
	Provide reliable and cost-effective water deliveries	<p>Goal: Increase Unit Reliability, through reduced forced outages and adherence to maintenance outage schedules.</p> <p>Accomplishment: The realized forced outage rate for 2014 was 1.3% and was 1.5% for 2015.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Goal: Develop canal criticality model that will determine risk and drive improvement of the equipment maintenance plans for the aqueduct system.</p> <p>Accomplishment: 100% of aqueduct pools have equipment maintenance plans that have been implemented. A Reliability Centered Maintenance (RCM) study on a typical section of the canal has been completed and the criticality pilot study has an anticipated completion in 2015.</p>
Project Reliability		<p>Goal: Improve the process of approving, scheduling and executing high priority work items through the work order priority system.</p> <p>Accomplishment: 91% of high priority work orders were completed in less than 90 days.</p>
		<p>Goal: Improve allocation of resources at all locations through the load balance process for all Maintenance cost centers.</p> <p>Accomplishment: All Maintenance cost centers have completed the load balance process.</p>
	Effectively manage, operate and maintain CAP assets	<p>Goal: Execute five-year maintenance plans for check structures and turnout sites.</p> <p>Accomplishment: 100% of scheduled check structure and turnout site five-year maintenance plans were completed.</p>
		<p>Goal: Establish and maintain cross-functional work teams and partnerships with Finance, Engineering and Operations to improve work processes.</p> <p>Accomplishment: All targeted partnerships were established. A recent reorganization has joined Engineering, Operations and Maintenance under a single SMT.</p>

MAINTENANCE  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Project Reliability	Promote environmental sustainability	<p>Goal: Improve outage planning process by applying project management principles to the development and execution of work packages and schedules.</p> <p>Accomplishment: Estimates vs actuals ratio for outage work fell below our stated target of +/- 20%. This continues to be an opportunity for improvement within the Maintenance Group.</p> <hr/> <p>Goal: Achieve environmental excellence through membership in the Arizona State Voluntary Environmental Stewardship Program (VESP).</p> <p>Accomplishment: Through an established Environmental Excellence Partnership, the decision was made to not pursue this qualification at this time.</p>

MAINTENANCE  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Finance	Maintain coordinated financial strategies (budget, reporting, revenues, rates, expenditures, taxes, reserves)	Maintain asset management cost structure to measure and control activity-based costs relative to individual assets and activities.  Measure/Target: Measure variance between budget and actual expenses: Target managing actual expenses to no more than 2% over and no less than 5% under approved budget.
	Provide reliable and cost-effective water deliveries	Maintain high levels of operational reliability by scheduling maintenance outages and eliminating unplanned outages. Provide a mechanism for discussion between Operations and Maintenance to align varying priorities, resolve conflicting situations (e.g., outage requests, maintenance needs, system operational constraints,) and ensure adherence to existing processes.  Measure/Target: Use target of less than 2.75% total forced unit outage.
Project Reliability	Expand Maintenance Excellence to Enterprise Asset Management	Increase two-way communication among managers, supervisors, maintenance engineers and crews to provide meaningful information to staff (e.g., key reports, necessity of work assignments, needs for asset modifications).  Measure/Target: Processes updated and reissue Maintenance Field Guide; target the maintenance employee training curriculum to be established and deployed prior to the end of 2016.
		Expand predictive maintenance in order to determine when equipment is in decline, by increasing condition-based monitoring instrumentation at CAP facilities (e.g., temperature, vibration at pumping plants).  Measure/Target: Application of RCM process to critical assets. With a target of completing and implementing 6 RCM analyses prior to the end of 2017.
		Develop methods for tracking, sharing and evaluating information resulting from condition-based monitoring.  Measure/Target: Acquisition or development and deployment of an automated data collection system that retrieves information from condition-based monitoring devices and other sources and makes that information readily available to drive maintenance decisions. With a target of achievement of this goal with collective and coordinated efforts of Maintenance, IT and other groups.
		Expand the mobile asset management system (i.e., preventive maintenance processes through the use of wireless hand-held devices).  Measure/Target: Implementation of mobile solutions to facilitate maintenance processes, with a target of two mobile solutions implemented per year with an achievement of this goal requiring the collective, coordinated efforts of maintenance, IT and other groups

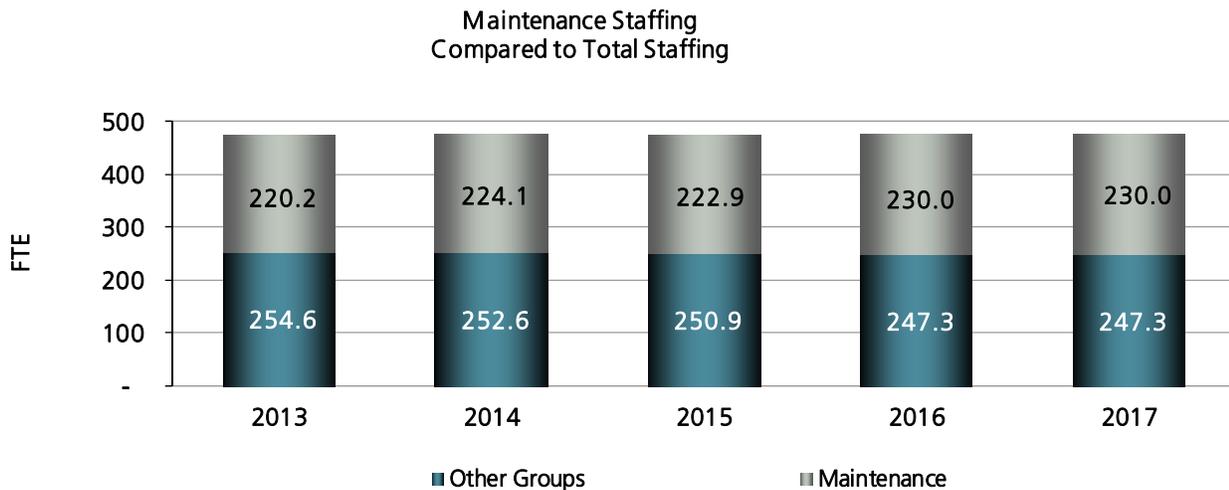
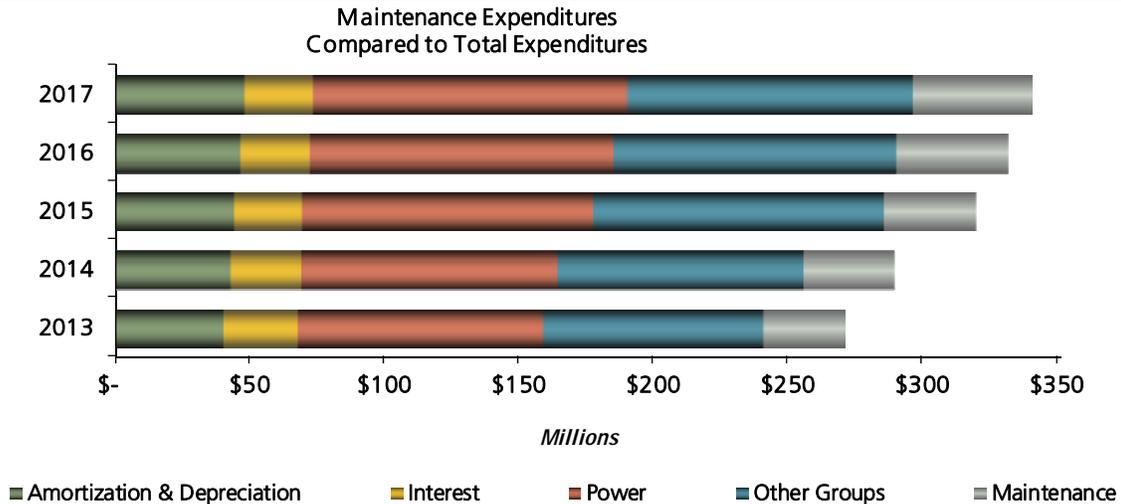
MAINTENANCE

BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Project Reliability	Promote environmental sustainability	<p>Enhance CAP’s environmental compliance program in all areas of environmental performance to achieve a high level of compliance and excellence.</p> <p>Measure/Target: Continue to reduce Opportunities to Correct, using a target of less than 3 OTC issued per month.</p>
	Expand Maintenance Excellence to Enterprise Asset Management	<p>Benchmark CAP’s maintenance program against other similar utilities and industry best practices in terms of reliability engineering, asset condition management, work execution and leadership.</p> <p>Measure/Target: Completion of assessment by outside expert with a target of complete assessment by end of 2016.</p>
	Maintain high levels of skills and job proficiency among employees	<p>Maintain an effective apprenticeship program to insure that retiring employees are replaced by qualified personnel that have been trained by veteran staff to understand the uniqueness of the CAP organization and operation.</p> <p>Measure/Target: Availability of apprenticeship program graduates to replace retiring employees, with a target of an average of 2 apprenticeship program graduates per year to be available to replace retiring employees.</p>

# MAINTENANCE BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 17,859.7	\$ 18,256.7	\$ 17,368.6	\$ 18,900.9	\$ 19,566.5
Transmission	1,326.5	602.7	1,495.1	5,282.0	4,338.0
Outside services	1,387.3	1,862.9	1,895.5	2,021.5	2,072.0
Materials & supplies	5,003.8	5,106.9	4,612.4	4,994.7	4,885.8
Other expenses	1,840.9	1,753.5	1,558.4	1,548.9	1,536.5
<b>Total Operating Expenses</b>	\$ 27,418.2	\$ 27,582.7	\$ 26,930.0	\$ 32,748.0	\$ 32,398.8
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 27,418.2	\$ 27,582.7	\$ 26,930.0	\$ 32,748.0	\$ 32,398.8
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	\$ 27,418.2	\$ 27,582.7	\$ 26,930.0	\$ 32,748.0	\$ 32,398.8
<b>Capital Expenditures</b>	2,988.5	6,364.5	6,988.9	8,800.2	11,726.5
<b>Total Expenditures</b>	\$ 30,406.7	\$ 33,947.2	\$ 33,918.9	\$ 41,548.2	\$ 44,125.3
<b>Staffing (FTE)</b>	220.2	224.1	222.9	230.0	230.0

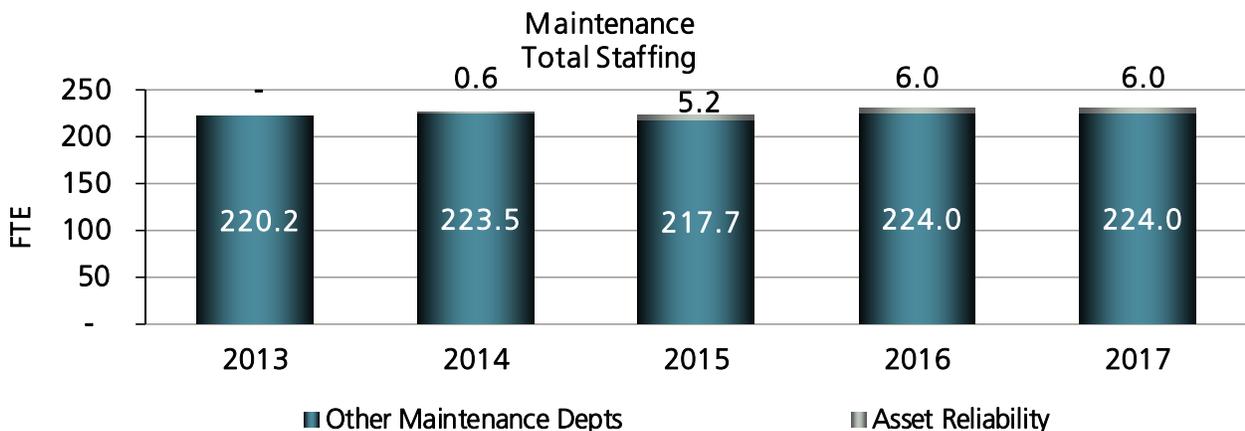
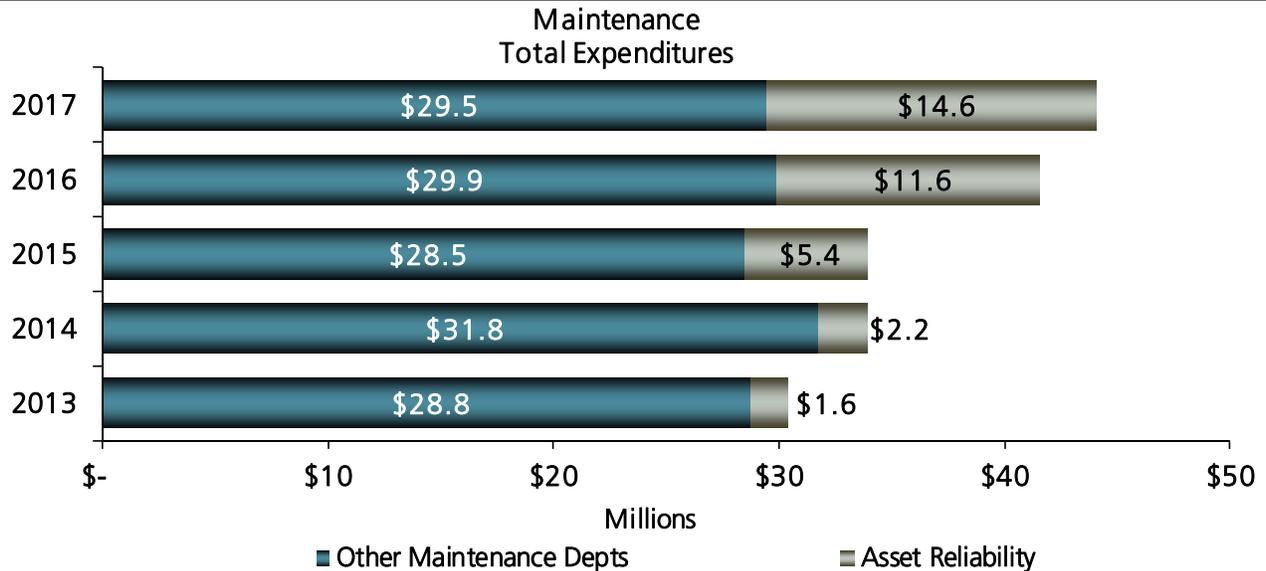


MAINTENANCE  
ASSET RELIABILITY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ -	\$ 79.8	\$ 508.2	\$ 615.0	\$ 633.0
Transmission	1,326.5	602.7	1,495.1	5,282.0	4,338.0
Outside services	-	-	-	-	-
Materials & supplies	-	1.5	20.1	27.0	27.0
Other expenses	-	5.2	47.2	68.7	66.4
<b>Total Operating Expenses</b>	<b>\$ 1,326.5</b>	<b>\$ 689.2</b>	<b>\$ 2,070.6</b>	<b>\$ 5,992.7</b>	<b>\$ 5,064.4</b>

Expenditures by Fund

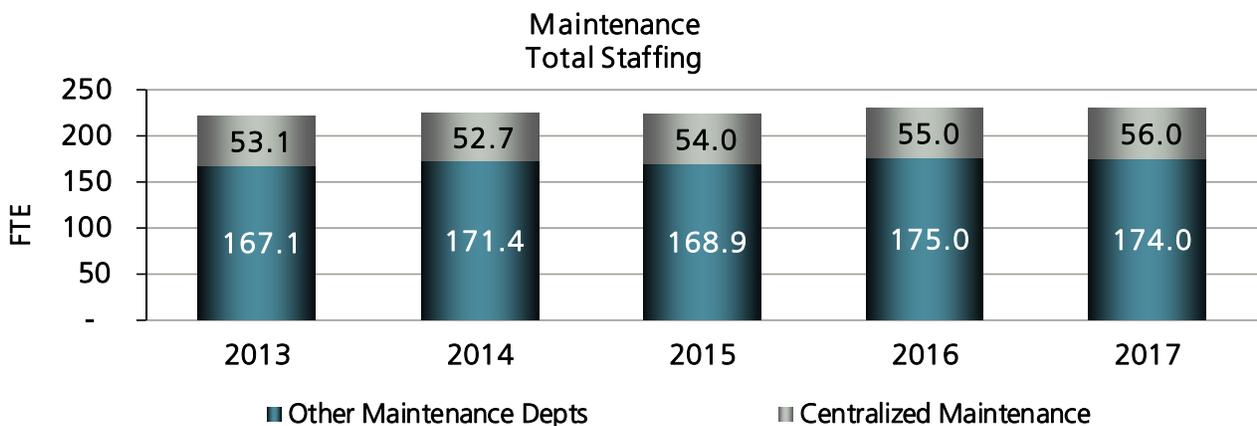
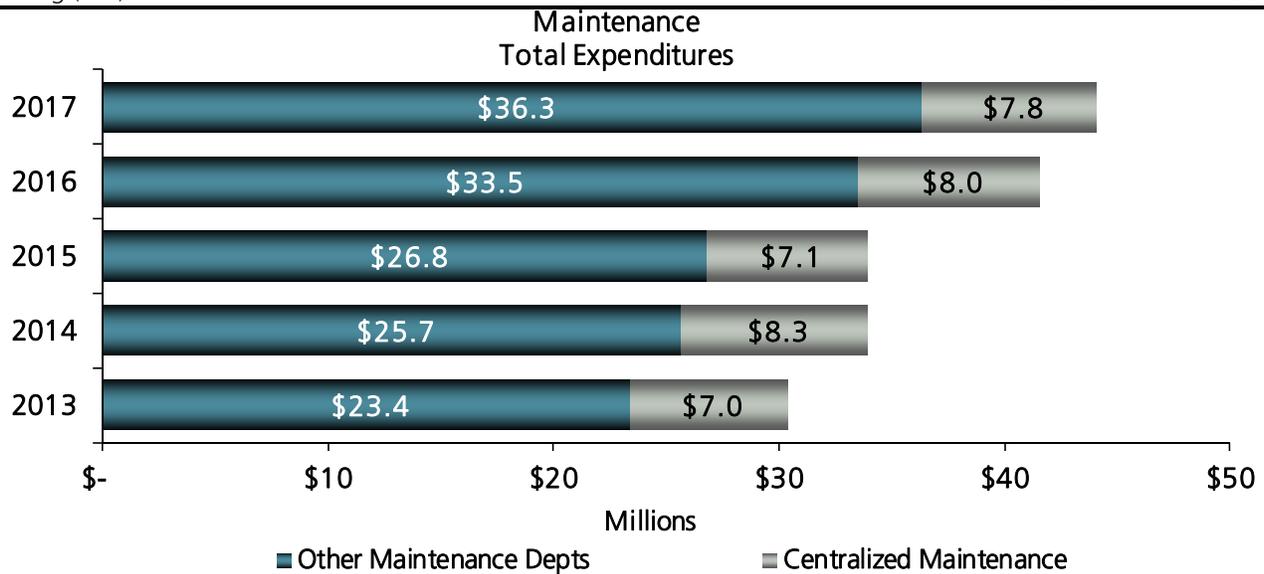
Operating Expenses					
General Fund	\$ 1,326.5	\$ 689.2	\$ 2,070.6	\$ 5,992.7	\$ 5,064.4
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,326.5</b>	<b>\$ 689.2</b>	<b>\$ 2,070.6</b>	<b>\$ 5,992.7</b>	<b>\$ 5,064.4</b>
Capital Expenditures	294.0	1,501.0	3,331.2	5,610.0	9,581.0
<b>Total Expenditures</b>	<b>\$ 1,620.5</b>	<b>\$ 2,190.2</b>	<b>\$ 5,401.8</b>	<b>\$ 11,602.7</b>	<b>\$ 14,645.4</b>
Staffing (FTE)	-	0.6	5.2	6.0	6.0



MAINTENANCE  
CENTRALIZED MAINTENANCE

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 4,311.1	\$ 4,420.1	\$ 4,225.5	\$ 4,481.2	\$ 4,678.4
Outside services	173.8	184.5	155.8	122.7	122.6
Materials & supplies	1,213.2	1,183.9	1,112.8	1,252.2	1,245.6
Other expenses	527.8	551.7	551.7	524.9	525.0
Total Operating Expenses	\$ 6,225.9	\$ 6,340.2	\$ 6,045.8	\$ 6,381.0	\$ 6,571.6

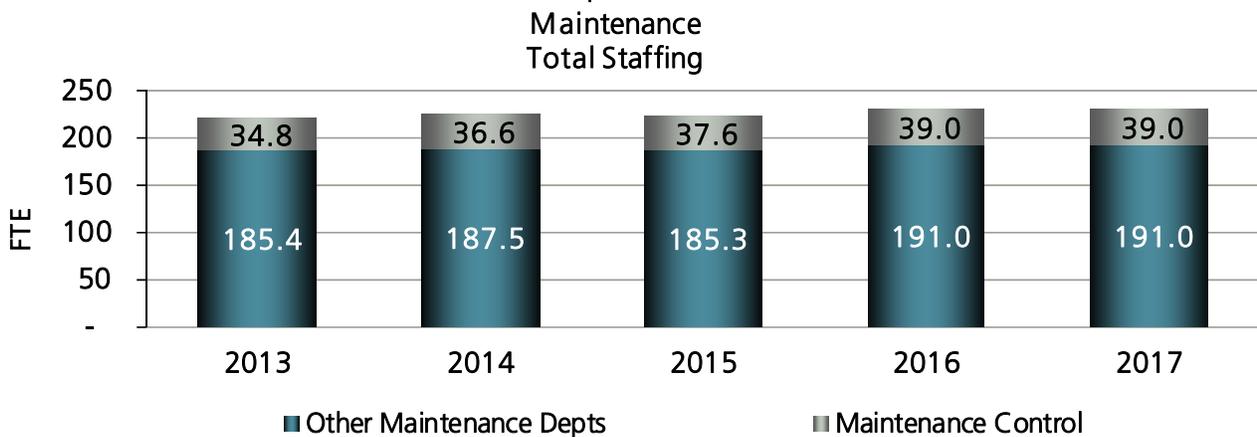
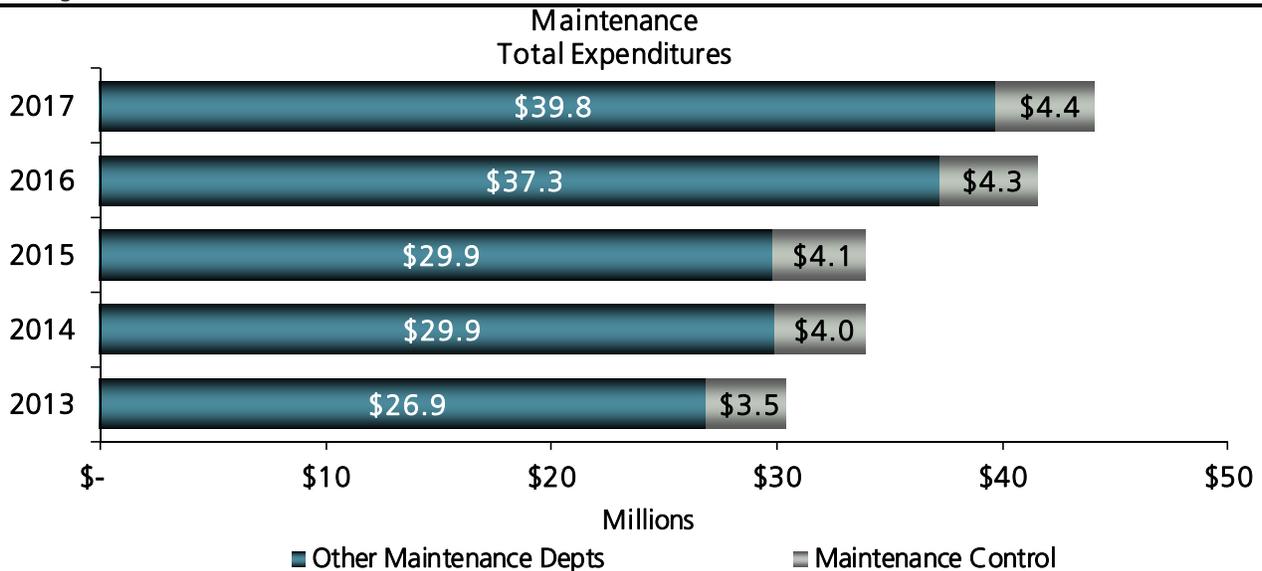
Expenditures by Fund	2013	2014	2015	2016	2017
Operating Expenses					
General Fund	\$ 6,225.9	6,340.2	6,045.8	6,381.0	6,571.6
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 6,225.9	\$ 6,340.2	\$ 6,045.8	\$ 6,381.0	\$ 6,571.6
Capital Expenditures	789.4	1,950.2	1,044.5	1,639.7	1,221.6
Total Expenditures	\$ 7,015.3	\$ 8,290.4	\$ 7,090.3	\$ 8,020.7	\$ 7,793.2
Staffing (FTE)	53.1	52.7	54.0	55.0	56.0



MAINTENANCE  
MAINTENANCE CONTROL

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 3,039.3	\$ 3,230.2	\$ 3,305.0	\$ 3,504.0	\$ 3,670.2
Outside services	80.8	184.6	176.8	221.7	224.9
Materials & supplies	77.9	92.9	76.3	93.9	91.9
Other expenses	217.4	216.0	214.9	202.7	201.1
<b>Total Operating Expenses</b>	<b>\$ 3,415.4</b>	<b>\$ 3,723.7</b>	<b>\$ 3,773.0</b>	<b>\$ 4,022.3</b>	<b>\$ 4,188.1</b>

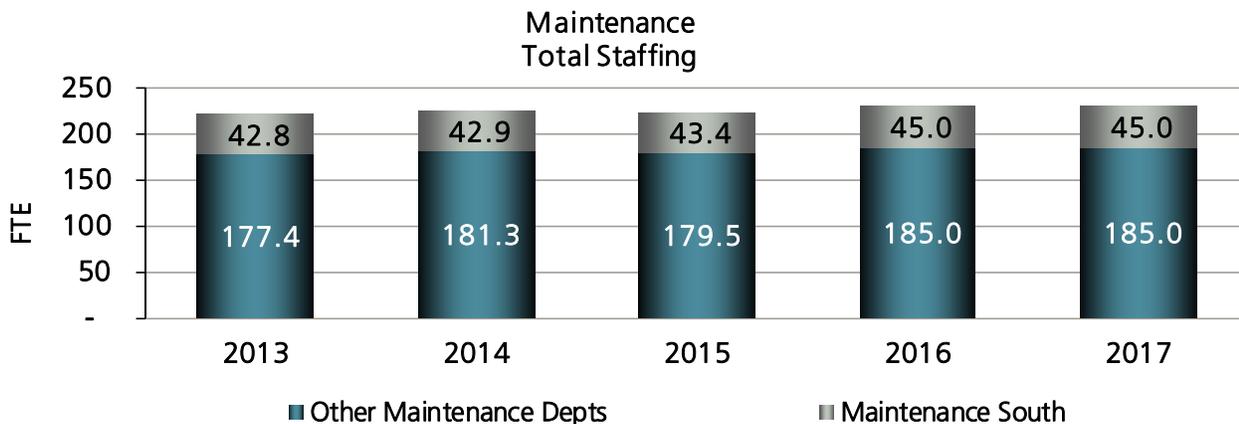
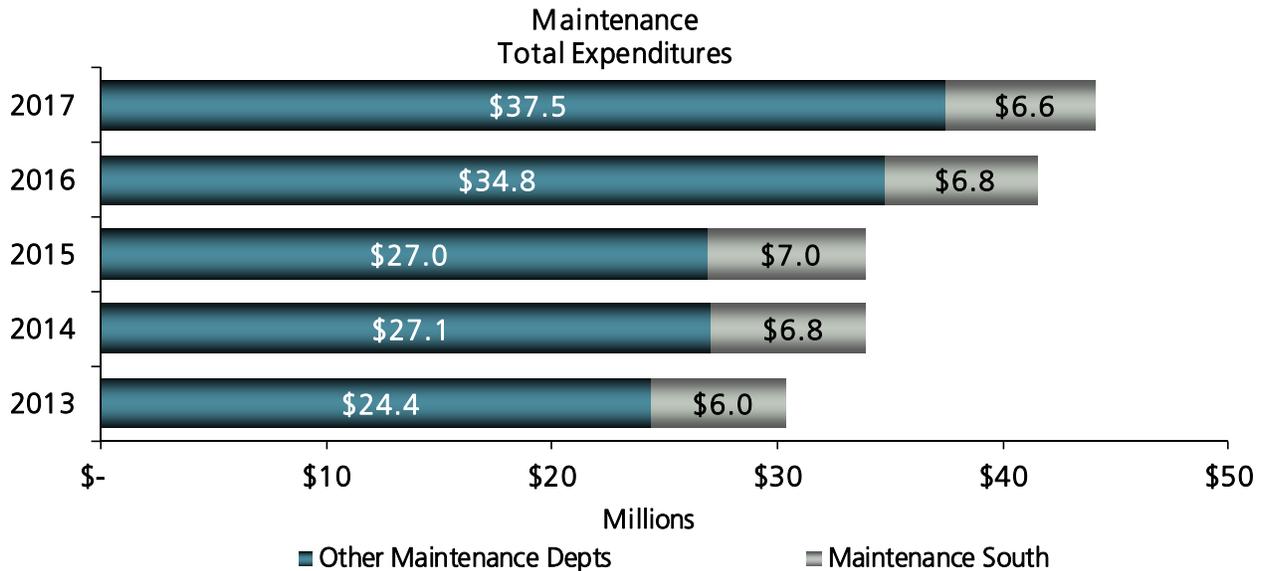
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 3,415.4	\$ 3,723.7	\$ 3,773.0	\$ 4,022.3	\$ 4,188.1
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 3,415.4</b>	<b>\$ 3,723.7</b>	<b>\$ 3,773.0</b>	<b>\$ 4,022.3</b>	<b>\$ 4,188.1</b>
Capital Expenditures	129.8	288.4	287.2	261.5	175.9
<b>Total Expenditures</b>	<b>\$ 3,545.2</b>	<b>\$ 4,012.1</b>	<b>\$ 4,060.2</b>	<b>\$ 4,283.8</b>	<b>\$ 4,364.0</b>
Staffing (FTE)	34.8	36.6	37.6	39.0	39.0



MAINTENANCE  
MAINTENANCE SOUTH

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 3,316.4	\$ 3,405.0	\$ 3,260.9	\$ 3,612.0	\$ 3,719.4
Outside services	376.9	710.2	1,038.8	1,083.1	1,155.3
Materials & supplies	1,506.9	1,545.9	1,422.3	1,508.2	1,326.5
Other expenses	272.1	378.5	254.2	196.5	185.4
<b>Total Operating Expenses</b>	<b>\$ 5,472.3</b>	<b>\$ 6,039.6</b>	<b>\$ 5,976.2</b>	<b>\$ 6,399.8</b>	<b>\$ 6,386.6</b>

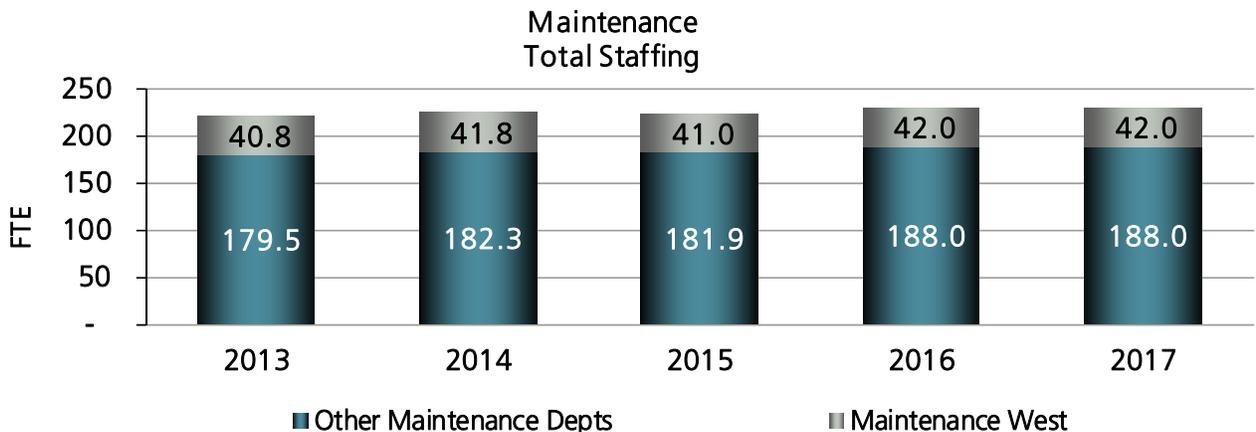
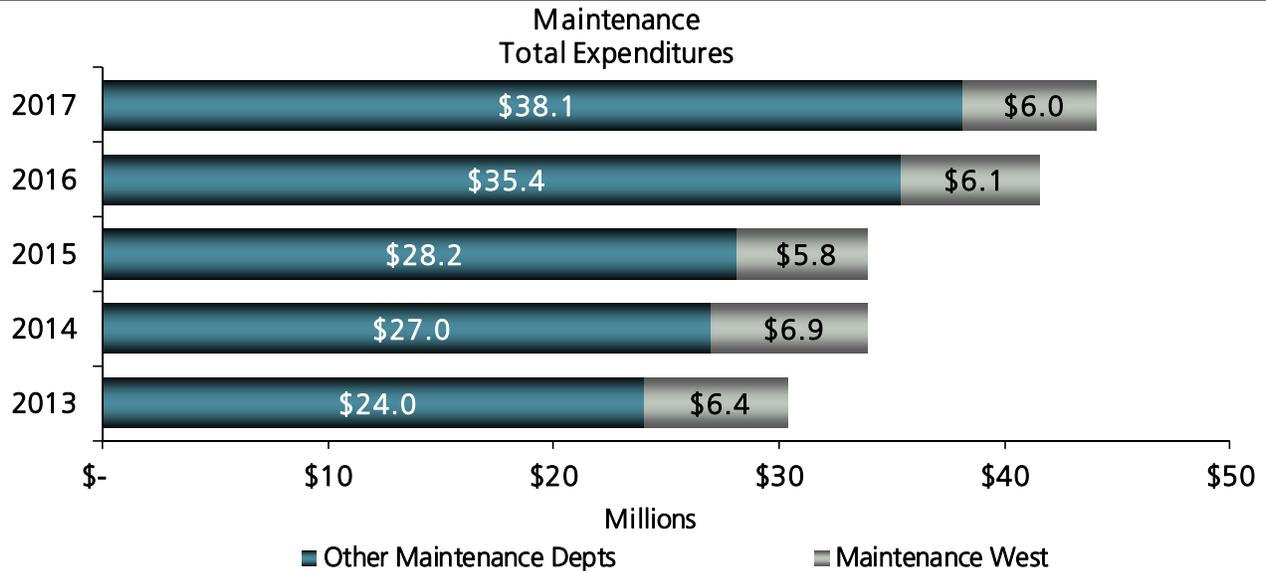
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,472.3	\$ 6,039.6	\$ 5,976.2	\$ 6,399.8	\$ 6,386.6
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 5,472.3</b>	<b>\$ 6,039.6</b>	<b>\$ 5,976.2</b>	<b>\$ 6,399.8</b>	<b>\$ 6,386.6</b>
Capital Expenditures	487.5	781.5	990.1	382.1	243.8
<b>Total Expenditures</b>	<b>\$ 5,959.8</b>	<b>\$ 6,821.1</b>	<b>\$ 6,966.3</b>	<b>\$ 6,781.9</b>	<b>\$ 6,630.4</b>
Staffing (FTE)	42.8	42.9	43.4	45.0	45.0



MAINTENANCE  
MAINTENANCE WEST

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 3,295.8	\$ 3,333.8	\$ 3,093.6	\$ 3,305.7	\$ 3,421.8
Outside services	610.1	686.6	398.3	461.4	436.6
Materials & supplies	1,724.3	1,772.6	1,536.5	1,618.6	1,685.8
Other expenses	231.1	194.8	132.1	197.3	209.3
Total Operating Expenses	\$ 5,861.3	\$ 5,987.8	\$ 5,160.5	\$ 5,583.0	\$ 5,753.5

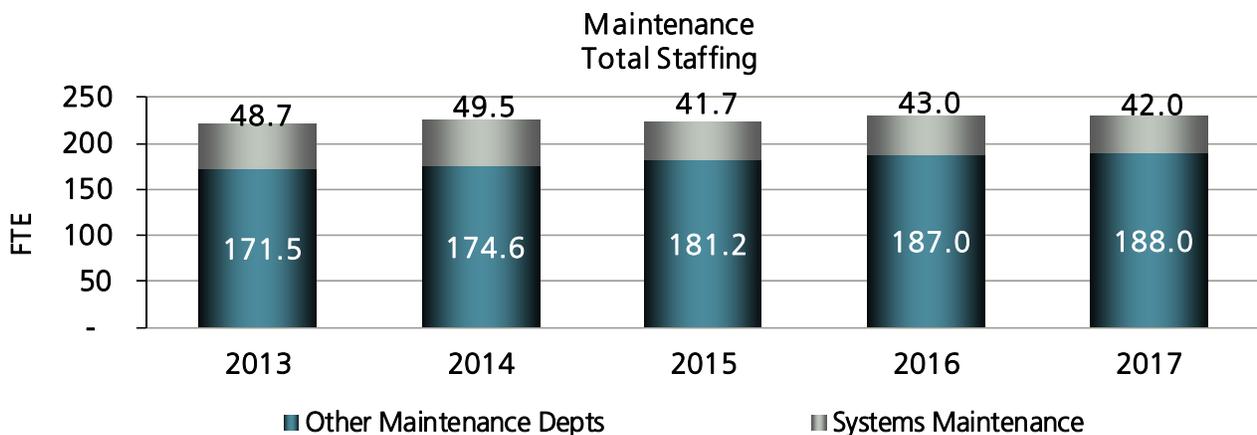
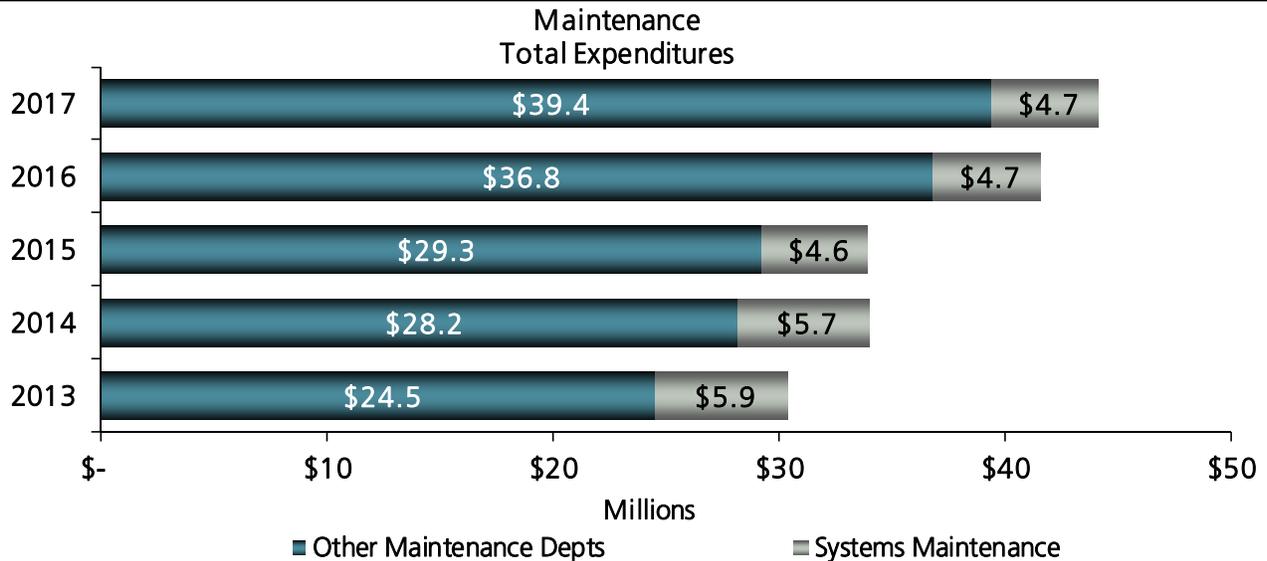
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,861.3	\$ 5,987.8	\$ 5,160.5	\$ 5,583.0	\$ 5,753.5
CAGR Account					
Other Funds and Accounts					
Total Operating Expenses	\$ 5,861.3	\$ 5,987.8	\$ 5,160.5	\$ 5,583.0	\$ 5,753.5
Capital Expenditures	509.5	909.8	591.0	528.3	222.7
Total Expenditures	\$ 6,370.8	\$ 6,897.6	\$ 5,751.5	\$ 6,111.3	\$ 5,976.2
Staffing (FTE)	40.8	41.8	41.0	42.0	42.0



MAINTENANCE  
SYSTEMS MAINTENANCE

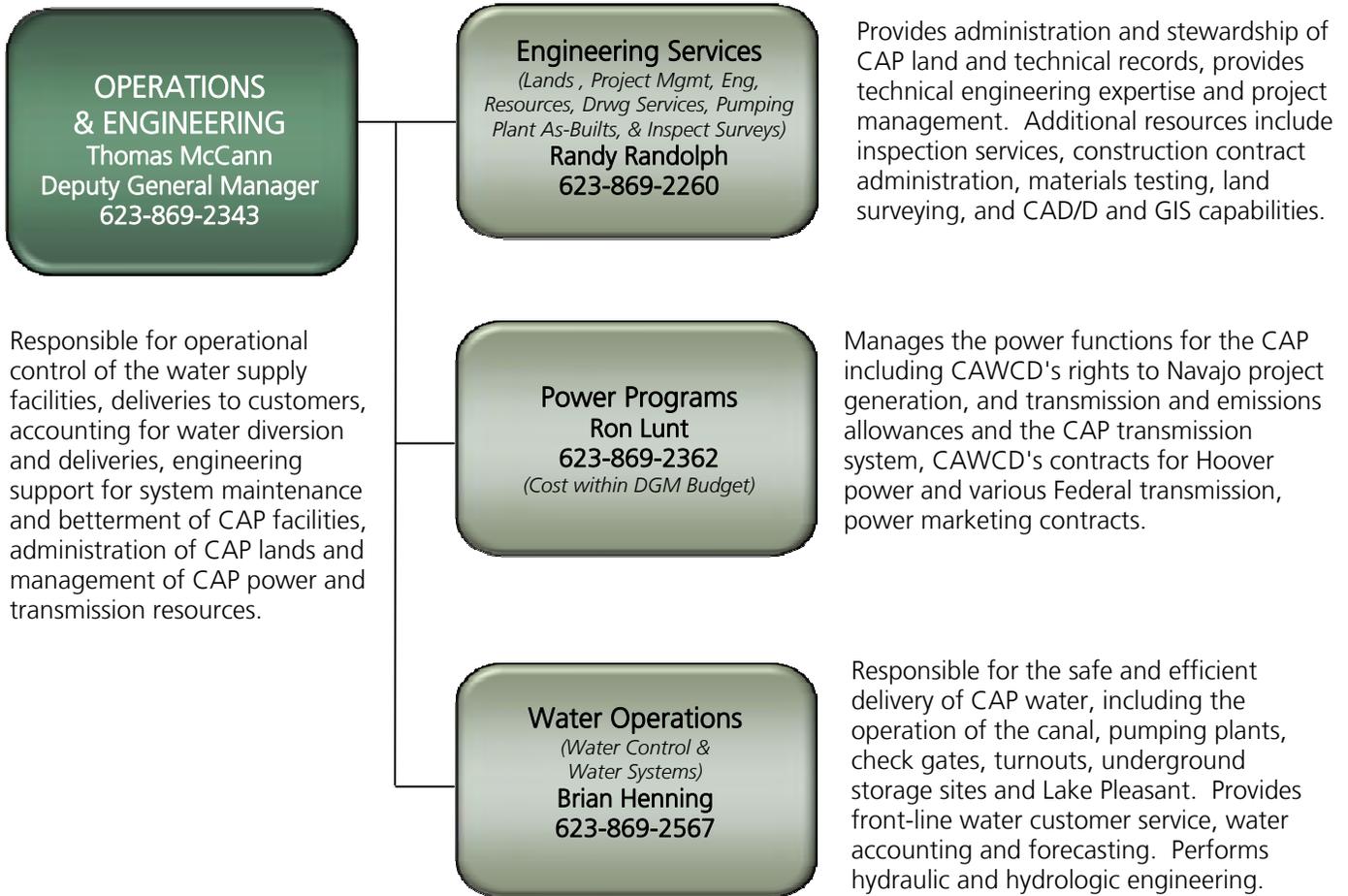
(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 3,897.1	\$ 3,787.8	\$ 2,975.4	\$ 3,383.0	\$ 3,443.7
Outside services	145.7	97.0	125.8	132.6	132.6
Materials & supplies	481.5	510.1	444.4	494.8	509.0
Other expenses	592.5	407.3	358.3	358.8	349.3
<b>Total Operating Expenses</b>	<b>\$ 5,116.8</b>	<b>\$ 4,802.2</b>	<b>\$ 3,903.9</b>	<b>\$ 4,369.2</b>	<b>\$ 4,434.6</b>

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 5,116.8	\$ 4,802.2	\$ 3,903.9	\$ 4,369.2	\$ 4,434.6
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 5,116.8</b>	<b>\$ 4,802.2</b>	<b>\$ 3,903.9</b>	<b>\$ 4,369.2</b>	<b>\$ 4,434.6</b>
Capital Expenditures	778.3	933.6	744.9	378.6	281.5
<b>Total Expenditures</b>	<b>\$ 5,895.1</b>	<b>\$ 5,735.8</b>	<b>\$ 4,648.8</b>	<b>\$ 4,747.8</b>	<b>\$ 4,716.1</b>
Staffing (FTE)	48.7	49.5	41.7	43.0	42.0



# OPERATIONS & ENGINEERING

**Mission:** The Operations and Engineering Group manages the operation of the CAP water delivery system, designs and oversees infrastructure improvements and new construction and manages CAP power and transmission resources.



OPERATIONS & ENGINEERING  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
	Provide reliable and cost-effective water deliveries	<p>Goal: Consistently manage and deliver CAP's full annual Colorado River apportionment.</p> <p>Accomplishment: Total 2014 Colorado River diversion was 1,630,677 AF. Total Protection Volume left in Mead storage was 23,537 AF. Target was achieved and full apportionment was managed beneficially.</p>
	Manage our workforce Recruitment and Succession Planning	<p>Goal: Replace employees retiring with new qualified personnel that have the experience commensurate with the uniqueness of the CAP operation.</p> <p>Accomplishment: Target achieved: CAP hired and trained 2 more dispatcher trainees in 2014 for a full complement of 11 FTE including 1 relief/rover dispatcher. Reduced overtime and callouts to staff to cover shifts, and improved the morale in the control center team.</p>
Project Reliability	Run a Reliability Centered Maintenance Program	<p>Goal: Complete installation of a fiber-optic acoustic monitoring system at Jackrabbit and Hassayampa Siphons. Complete installation and begin monitoring during the scheduled outage.</p> <p>Accomplishment: Fiber was installed and monitoring began in January 2014 as scheduled. The total project was closed out about \$50,000 below the budgeted amount.</p> <p>Goal: Manage capital improvement projects such as: Condition-Based Monitoring and Transformer Gas Monitoring to allow assets to be maintained in an efficient cost-effective manner.</p> <p>Accomplishment: The Condition-Based Monitoring Project is progressing well, but anticipate the total project to be about \$1.4 M over the original budget. Transformer gas modelling installation was completed in 2014.</p>
		<p>Goal: Ensure integrity of the Canal System through analysis and mitigation of subsidence and surface drainage issues. Work includes hydrology studies, risk assessments, development of repair techniques, maintenance techniques and mitigation efforts.</p> <p>Accomplishment: Hydrologic modeling was completed near Centennial Wash Siphon and designs are being developed to issue a repair contract. Pool 1 repair alternatives are being developed.</p>
	Provide reliable and cost-effective water deliveries	<p>Goal: Manage CAP's Capital Improvement Program and Asset Modification Process.</p> <p>Accomplishment: The Engineering Services Capital Improvement Program was about \$2.5 M under budget in 2014 and is forecast to be about the same amount under in 2015. There are currently about sixty projects in planning, design, construction or close-out phases at the present time.</p>

OPERATIONS & ENGINEERING  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Power	Prepare for eventual replacement of Navajo Generating Station	<p>Goal: Continually monitor energy developments and provide periodic updates to the Board on market prices for energy, technological advances and cost of alternative generation.</p> <p>Accomplishment: A Board workshop was held on June 24, 2014, a follow-up discussion was at the August Board meeting. Periodic Market Reports have been presented to the Board and a presentation on Post NGS energy plans have been presented to the FAP Committee.</p>
	Enhance transmission reliability	<p>Goal: Monitor and oversee the development/construction of the APS/CAWCD Palo Verde-Morgan 500 KV Transmission line.</p> <p>Accomplishment: Staff have attended and provided input at all of the quarterly meetings. The Power Programs staff inspects the construction activities at least every two months to verify the progress on the project. It is currently on schedule and under budget.</p> <p>Goal: Develop an Operation/ Maintenance (O&amp;M) Agreement between Western Area Power Administration (WAPA), BOR and CAWCD. Monitor and provide input into the operating and capital budget included in the Agreement.</p> <p>Accomplishment: The Operation/ Maintenance Agreement became effective on October 1, 2014. The Parties have held meetings with WAPA and the Bureau to review and approve the proposed budgets.</p>

OPERATIONS & ENGINEERING  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Project Reliability		Manage long-term capital improvement plan consistent with ensuring system reliability, including major equipment replacement and rehabilitation.
	Enhance effective project management	Measure/Target: Compliance with project schedules and budgets and Project Steering Committee (PSC) rules. With a target of the capital improvement plan managed within approved budget.
		Improve efficiency and timeliness in updating technical documents, including as-built drawings and Standard Operating Procedures (SOP).
		Measure/Target: Significantly decrease drawing and SOP backlog. With a target of completing Autodesk Vault installation and document migration. Reduce as-built drawing backlog to 3 months with 75% compliance.
		Prioritize and implement asset modification work orders.
	Expand Maintenance Excellence to Enterprise Asset Management	Measure/Target: Compliance with planned budgets, schedules, outage constraints and agreed upon processes. With a target of completing prioritization of all outstanding asset modification work orders. Complete design and implementation of all approved asset modifications.
Implement cradle-to-grave asset management and asset sustainability programs.		
	Measure/Target: Incorporation of RCM considerations in all phases of capital improvement and asset modification processes, including business needs analysis, design and acquisition.	
Provide reliable and cost-effective water deliveries	Reliably deliver CAP water to satisfy all customer water orders.	
	Measure/Target: 100% of annual customer water orders delivered based on final end-of-year water orders.	
Water Supply	Manage Colorado River to optimize CAP water availability	Manage Colorado River diversions and deliveries to fulfill CAP commitments under MOU among lower basin water users and the BOR.
		Measure/Target: Acre-feet of Protection Volume stored in Lake Mead; target is 345,000 AF by the end of 2017.
	Coordinate efforts to sustain CAP's ability to deliver all available Colorado River water	Maximize permitted capacity of existing recharge facilities.
		Measure/Target: Successfully modify the Superstition Mountains Recharge project underground storage facility permit to allow for storage of 52,500 AF per year using the two existing basins. With a target of securing ADWR's approval of permit modification by 2016.

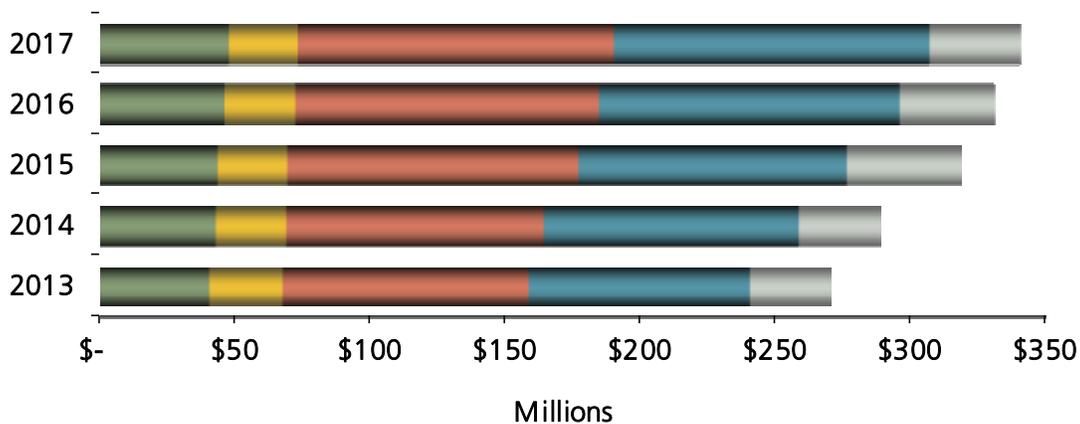
OPERATIONS & ENGINEERING  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Power	Prepare for eventual replacement of Navajo Generating Station	<p>Continually monitor energy developments and provide periodic updates to the Board on market prices for energy, technological advances and cost of alternative generation.</p> <p>Measure/Target: Board remains informed on relevant energy developments. With a target of at least 3 Board updates provided annually.</p>
	Enhance transmission reliability	<p>Pursue strategic partnerships to enhance CAP transmission reliability and improve access to alternative generation resources.</p> <p>Measure/Target: Completion of planned PV-Morgan and Hassayampa Tap transmission project. With a target of energization of PV-Morgan line to Sun Valley Substation by end of 2016, and energization of line from Sun Valley Substation to Hassayampa Tap by end of 2018.</p> <p>Replace unreliable wood poles on ED2-Saguaro transmission line with steel structures.</p> <p>Measure/Target: Completely replace wood poles along all 37.5 miles of ED2-Saguaro line. With a target of commencing replacement project in 2016 and complete by 2019.</p>

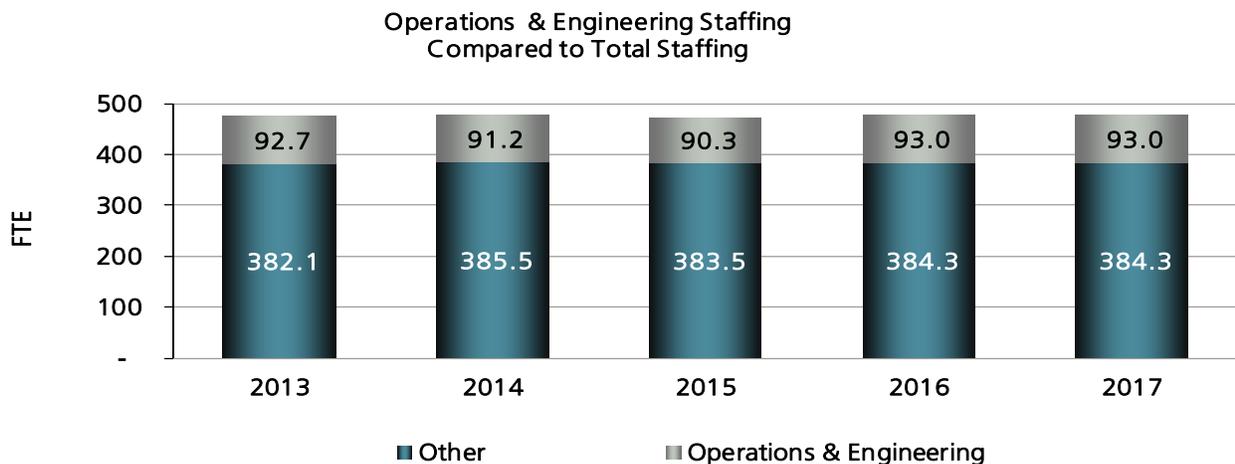
# OPERATIONS & ENGINEERING BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 5,911.9	\$ 5,832.4	\$ 5,217.1	\$ 5,420.4	\$ 6,280.9
Outside services	5,830.0	4,940.3	2,753.1	5,400.8	5,303.5
Materials & supplies	187.9	121.7	161.5	163.4	175.8
Water for recharge	-	-	-	-	-
Other expenses	3,270.1	2,369.8	510.8	672.0	648.4
<b>Total Operating Expenses</b>	<b>\$ 15,199.9</b>	<b>\$ 13,264.2</b>	<b>\$ 8,642.5</b>	<b>\$ 11,656.6</b>	<b>\$ 12,408.6</b>
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 15,199.9	\$ 13,264.2	\$ 8,642.5	\$ 11,656.6	\$ 12,408.6
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 15,199.9</b>	<b>\$ 13,264.2</b>	<b>\$ 8,642.5</b>	<b>\$ 11,656.6</b>	<b>\$ 12,408.6</b>
<b>Capital Expenditures</b>	<b>15,269.8</b>	<b>16,917.1</b>	<b>33,975.8</b>	<b>23,813.6</b>	<b>20,933.4</b>
<b>Total Expenditures</b>	<b>\$ 30,469.7</b>	<b>\$ 30,181.3</b>	<b>\$ 42,618.3</b>	<b>\$ 35,470.2</b>	<b>\$ 33,342.0</b>
<b>Staffing (FTE)</b>	<b>92.7</b>	<b>91.2</b>	<b>90.3</b>	<b>93.0</b>	<b>93.0</b>

Operations & Engineering Expenditures  
Compared to Total Expenditures



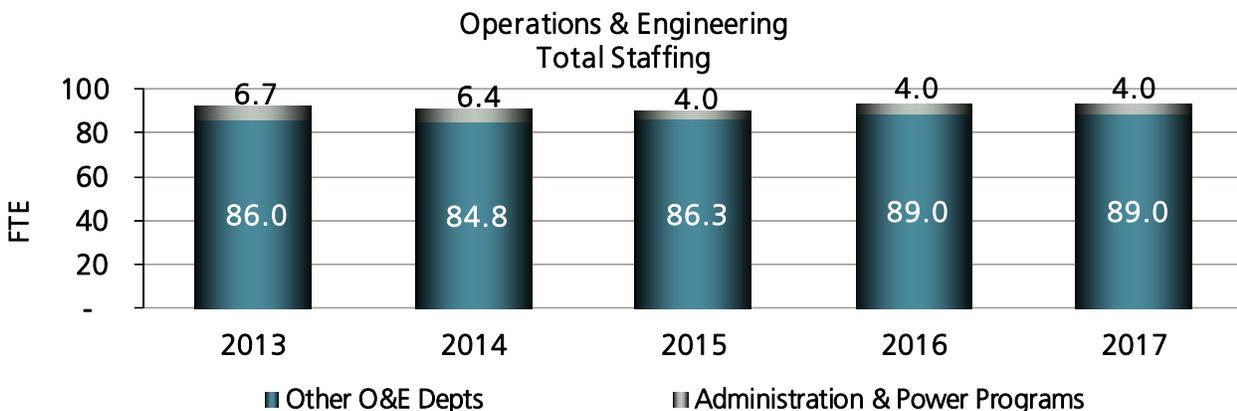
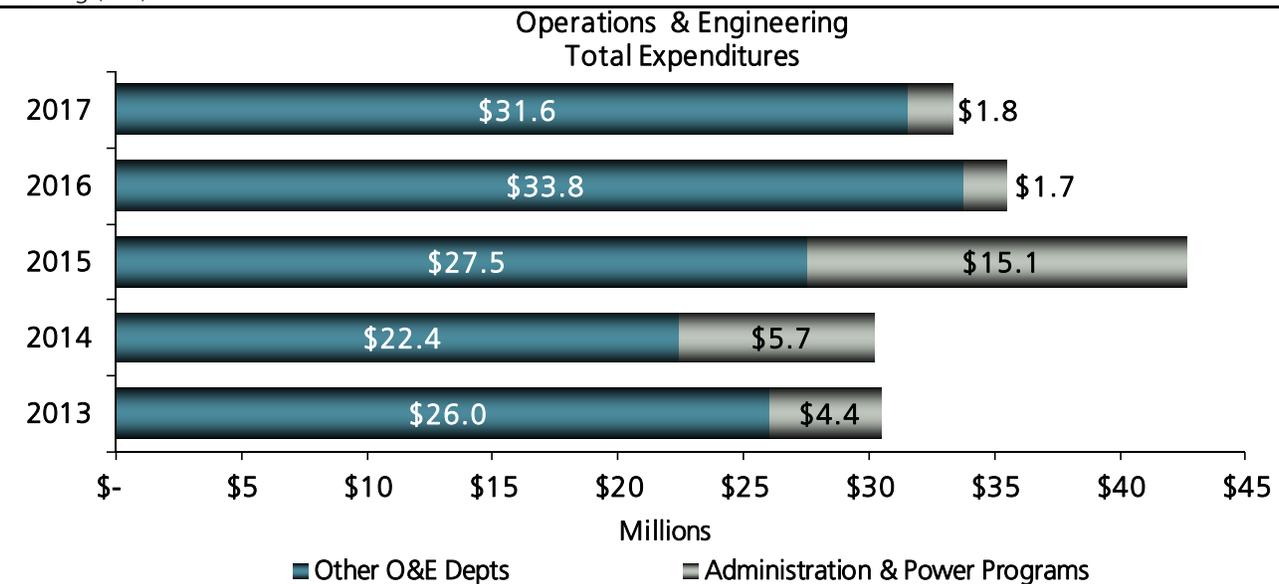
Operations & Engineering Staffing Compared to Total Staffing



OPERATIONS & ENGINEERING  
ADMINISTRATION & POWER PROGRAMS

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 710.1	\$ 708.1	\$ 522.4	\$ 534.8	\$ 550.8
Outside services	1,385.7	2,228.9	1,211.9	1,132.2	1,212.5
Materials & supplies	2.4	0.7	0.7	0.6	0.7
Water for recharge	-	-	-	-	-
Other expenses	2,360.2	1,882.3	13.7	18.2	20.0
<b>Total Operating Expenses</b>	<b>\$ 4,458.4</b>	<b>\$ 4,820.0</b>	<b>\$ 1,748.7</b>	<b>\$ 1,685.8</b>	<b>\$ 1,784.0</b>

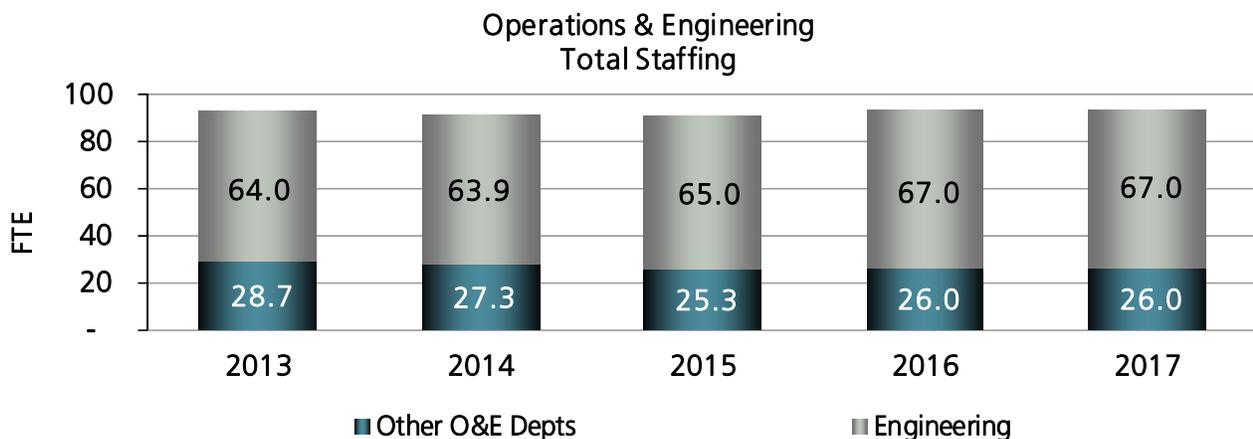
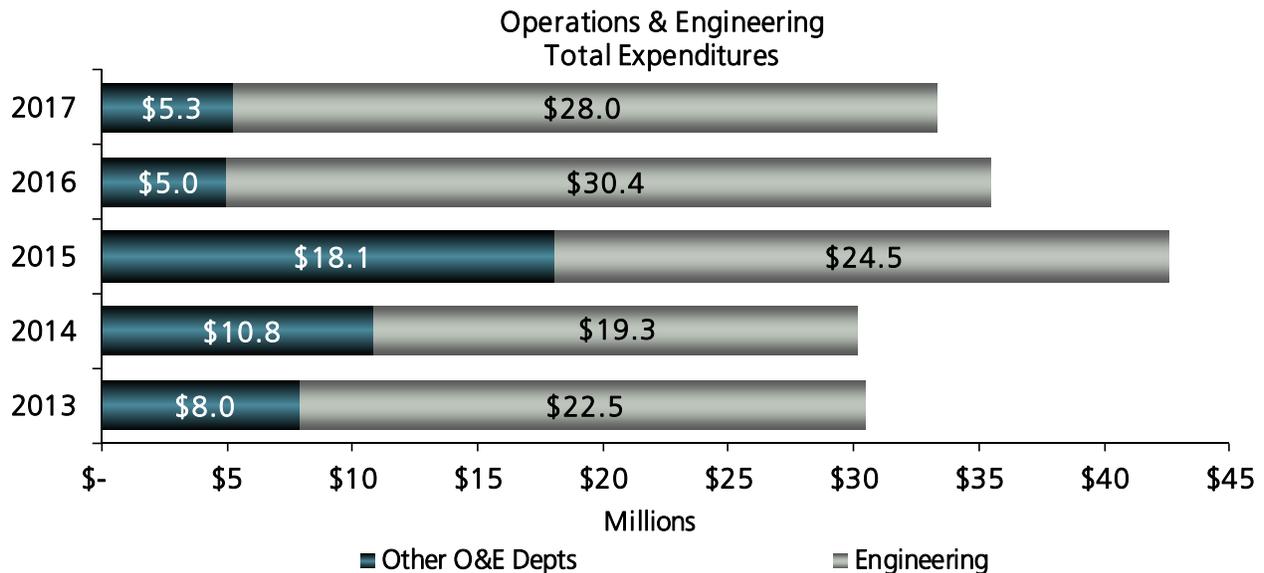
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 4,458.4	\$ 4,820.0	\$ 1,748.7	\$ 1,685.8	\$ 1,784.0
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 4,458.4</b>	<b>\$ 4,820.0</b>	<b>\$ 1,748.7</b>	<b>\$ 1,685.8</b>	<b>\$ 1,784.0</b>
Capital Expenditures	(28.5)	2,967.2	13,351.0	-	-
<b>Total Expenditures</b>	<b>\$ 4,429.9</b>	<b>\$ 7,787.2</b>	<b>\$ 15,099.7</b>	<b>\$ 1,685.8</b>	<b>\$ 1,784.0</b>
Staffing (FTE)	6.7	6.4	4.0	4.0	4.0



OPERATIONS & ENGINEERING  
ENGINEERING

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 3,228.9	\$ 3,136.3	\$ 2,681.2	\$ 2,824.6	\$ 3,601.9
Outside services	3,737.8	2,031.0	919.6	3,378.7	3,180.1
Materials & supplies	142.9	106.0	123.7	138.9	140.8
Other expenses	106.0	120.0	195.4	291.3	290.8
<b>Total Operating Expenses</b>	<b>\$ 7,215.6</b>	<b>\$ 5,393.3</b>	<b>\$ 3,919.9</b>	<b>\$ 6,633.5</b>	<b>\$ 7,213.6</b>

Expenditures by Fund					
Operating Expenses					
General Fund	\$ 7,215.6	\$ 5,393.3	\$ 3,919.9	\$ 6,633.5	\$ 7,213.6
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 7,215.6</b>	<b>\$ 5,393.3</b>	<b>\$ 3,919.9</b>	<b>\$ 6,633.5</b>	<b>\$ 7,213.6</b>
Capital Expenditures	15,298.3	13,949.9	20,624.8	23,813.6	20,833.4
<b>Total Expenditures</b>	<b>\$ 22,513.9</b>	<b>\$ 19,343.2</b>	<b>\$ 24,544.7</b>	<b>\$ 30,447.1</b>	<b>\$ 28,047.0</b>
Staffing (FTE)	64.0	63.9	65.0	67.0	67.0

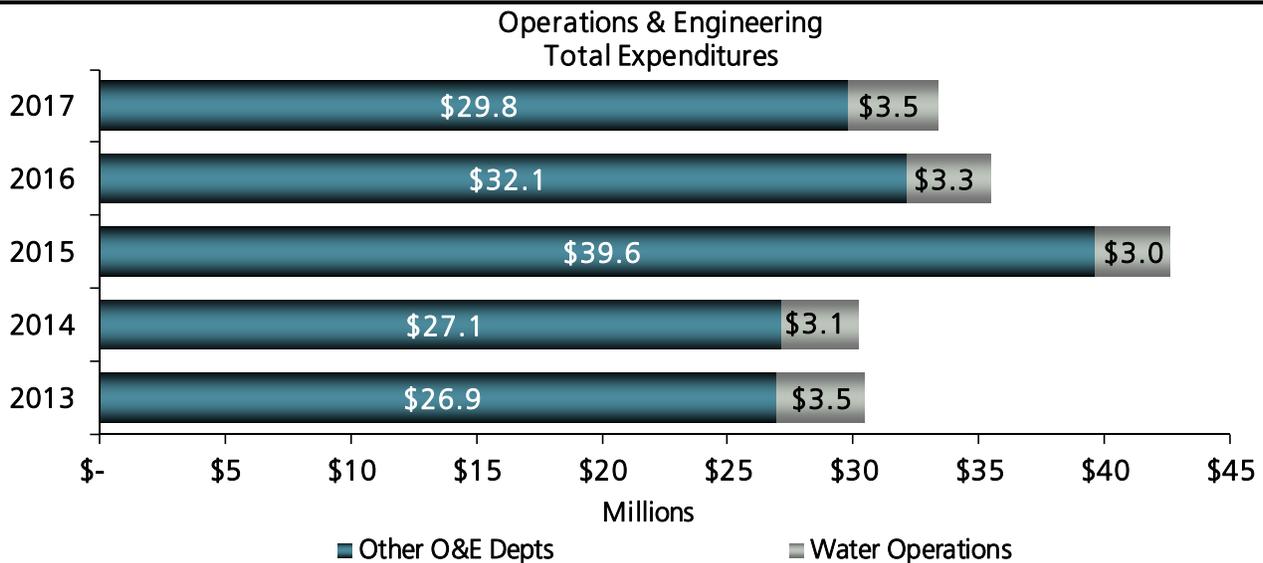


OPERATIONS & ENGINEERING  
**WATER OPERATIONS**

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 1,972.9	\$ 1,988.0	\$ 2,013.5	\$ 2,061.0	\$ 2,128.2
Outside services	706.5	680.4	621.6	889.9	910.9
Materials & supplies	42.6	15.0	37.1	23.9	34.3
Other expenses	803.9	367.5	301.7	362.5	337.6
<b>Total Operating Expenses</b>	<b>\$ 3,525.9</b>	<b>\$ 3,050.9</b>	<b>\$ 2,973.9</b>	<b>\$ 3,337.3</b>	<b>\$ 3,411.0</b>

Expenditures by Fund

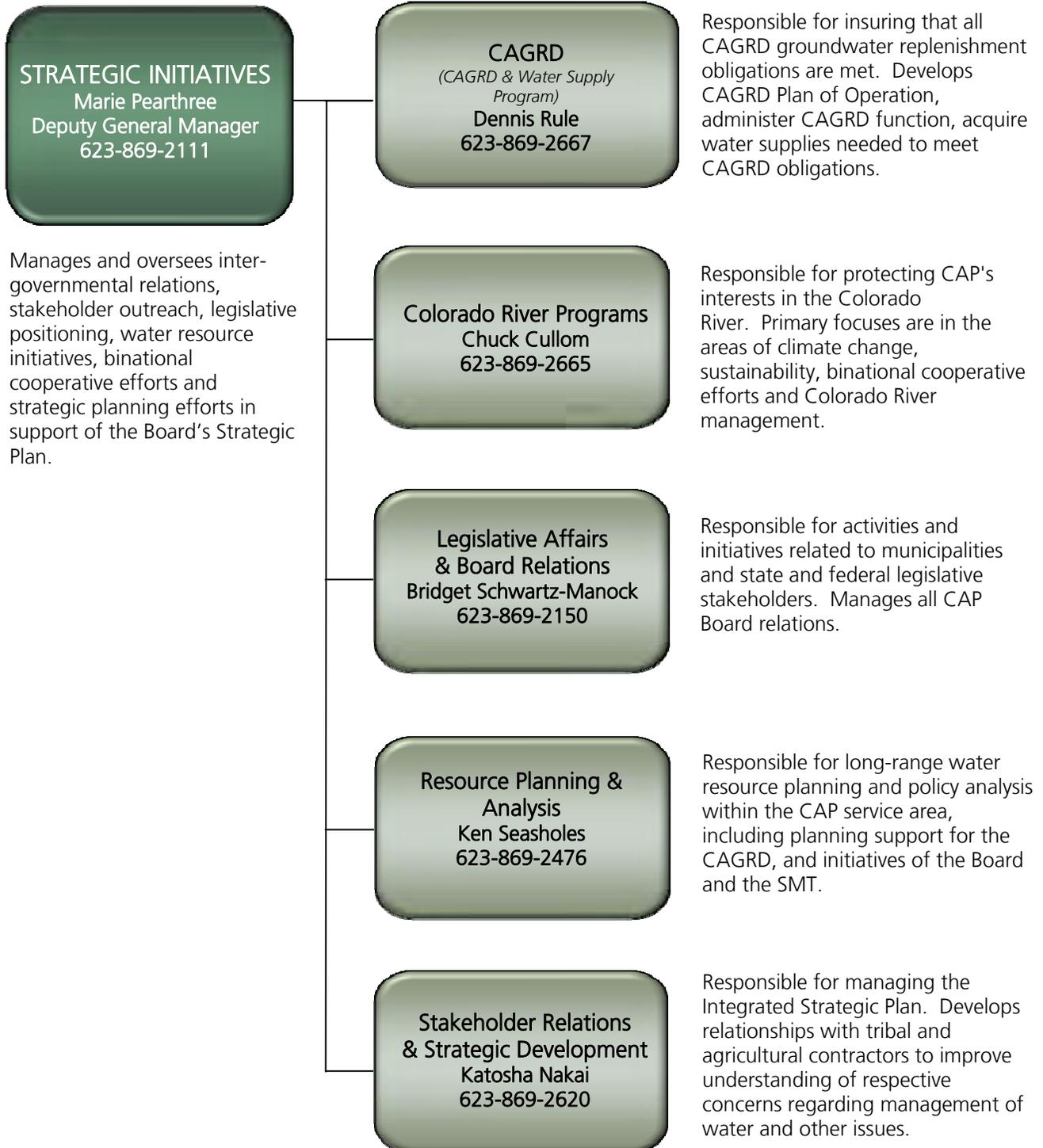
Operating Expenses					
General Fund	\$ 3,525.9	\$ 3,050.9	\$ 2,973.9	\$ 3,337.3	\$ 3,411.0
CAGR Account	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 3,525.9</b>	<b>\$ 3,050.9</b>	<b>\$ 2,973.9</b>	<b>\$ 3,337.3</b>	<b>\$ 3,411.0</b>
Capital Expenditures	-	-	-	-	100.0
<b>Total Expenditures</b>	<b>\$ 3,525.9</b>	<b>\$ 3,050.9</b>	<b>\$ 2,973.9</b>	<b>\$ 3,337.3</b>	<b>\$ 3,511.0</b>
Staffing (FTE)	22.0	20.9	21.3	22.0	22.0





# STRATEGIC INITIATIVES & PUBLIC POLICY

**Mission:** The Strategic Initiatives & Public Policy (SI&PP) is responsible for working closely with the General Manager, the Board of Directors and employees to research, develop and implement strategic and tactical plans and related policy for CAP.



STRATEGIC INITIATIVES & PUBLIC POLICY  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
	Complete and implement appropriate wheeling agreements.	<p>Goal: Reach agreement with BOR on framework for wheeling non-project water.</p> <p>Accomplishment: Resource Planning &amp; Analysis (RPA) led the development of a CAP staff proposal on wheeling, which was forwarded to the Bureau for review and negotiation following extensive technical discussions, a large-scale stakeholder process, and review by the Board. Negotiations with the Bureau are ongoing in 2015.</p>
	Develop, implement and maintain an Integrated Resource Plan (IRP) to include water resources, policies, regulation, etc. Coordinate with the power IRP.	<p>Goal: Produce an Integrated Resource Plan.</p> <p>Accomplishment: RPA has made significant strides towards the goal of comprehensive water resource planning and analysis. The CAP:SAM model was an indispensable tool in the development of the projections in the CAGR Plan of Operation, and its capabilities have been expanded to include non-municipal sectors and is being actively used to analyze a wide range of future supply, demand and reliability scenarios in the CAP service area. RPA has used its technical and subject-matter expertise to support a range of planning efforts, including Arizona Water Banking Authority (AWBA) 10-year projections, contributions to the shortage preparedness workshop, and support for regional planning efforts. RPA, in close collaboration with other CAP departments, will continue to increase the visibility of these efforts in the remainder of 2015.</p>
Water Supply	Manage annual performance of replenishment activities	<p>Goal: Meet annual replenishment obligations.</p> <p>Accomplishment: Both the 2013 and 2014 CAGR annual reports were submitted to and approved by ADWR.</p> <hr/> <p>Goal: Actively participate on Colorado River Committees including the newly formed Lower Colorado River Water Quality Partnership (LCRWQP), Colorado River Committee of the Western Urban Water Coalition and Colorado River Water Users Association (CRWUA).</p> <p>Accomplishment: Attended CRWUA, and staffed its Resolutions Committee and drafted documents. Actively participated in LCRWQP meetings and the 2015 Basin Principals meeting.</p> <hr/> <p>Goal: Continue to coordinate activities with CAP's Colorado River Programs Department.</p> <p>Accomplishment: CRP and the former BPGP were merged under the SIPP umbrella, and continue to actively coordinate on Colorado River issues, including shortage workshop and presentation to the state Legislature in Dec. 2014.</p> <hr/> <p>Goal: Develop a new CAGR Plan of Operation.</p> <p>Accomplishment: CAGR 2015 Plan of Operation was submitted to ADWR on December 29, 2014. Approval of the Plan occurred on August 6, 2015.</p>
	Improve the current CAGR model	

STRATEGIC INITIATIVES & PUBLIC POLICY  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Water Supply		<p>Goal: Support studies and pilot programs to advance the long-term operation of the Yuma Desalting Plant (YDP) or other suitable alternative.</p> <p>Accomplishment: Developed a strategic plan, leading to the creation of the Bypass Flow Work Group to conserve more than 100 kaf/yr. Participating in the Work Group to implement strategic plan components.</p>
	<p>Manage the Colorado River to optimize CAP water availability, augment supplies, and manage risk</p>	<p>Goal: Support new and updated augmentation studies and pilot programs (e.g., Basin States Augmentation Program, ocean desalination, weather modification, watershed management, brackish desalination, and phreatophyte removal).</p> <p>Accomplishment: Completed updated augmentation study leading to the formation of the Basin States Augmentation Work Group. Provided \$150K to pilot snowpack augmentation programs in Wyoming, Utah, and Colorado.</p>
		<p>Goal: Actively participate in decision-making regarding binational programs with Mexico and the implementation of Minute 319, regarding Colorado River water supplies and water quality.</p> <p>Accomplishment: Participating in Minute 319 implementation teams, coordinating team, and small group policy team. Paid the required \$833,333.33 for CAP's contribution to the Minute 319 Pilot Project.</p>
	<p>Manage acquisition of water supplies</p>	<p>Goal: Acquire sufficient water supplies to meet current obligations.</p> <p>Accomplishment: CAGR D expects to have acquired a total of 25,900 AF of additional water supplies by the end of 2015, meeting the target of 35,000 AF total.</p>
	<p>Identify potential impacts of climate change on CAP supplies and develop adaptation strategies; Explore demand management as a component of water supply planning</p>	<p>Goal: Develop capability to model-detailed supply, demand and reliability scenarios for the CAP service area.</p> <p>Accomplishment: RPA has developed models and analytical tools that have provided unique insights into how changes in supply conditions, including shortage, affect CAP users. RPA's innovative recovery planning tool was used for the Joint Plan, but also to evaluate the climate change traces developed by the BOR. The CAP: SAM model also has the ability to directly assess the impacts of demand management on demand and supply utilization, which was evaluated in the CAGR D Plan of Operation and is part of ongoing cooperative research efforts.</p>

STRATEGIC INITIATIVES & PUBLIC POLICY  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
Project Reliability	Improve data management and processing throughout CAP to maximize collaboration across the organization; Enhance information sharing by eliminating database silos	<p>Goal: Expand and maintain central repository of data for planning and analysis.</p> <p>Accomplishment: RPA continued to expand, maintain and rely heavily on the use of data to support its planning and policy analysis. RPA staff also continued to have heavy involvement in the Water Management System (WMS) project, which is an enterprise data management system for managing CAP's monthly water delivery data.</p>
Power	Actively manage and respond to legislative, legal and regulatory issues impacting NGS	<p>Goal: Continue to work collaboratively with all stakeholders, legislators and state and federal agencies to accomplish a resolution to the EPA's NGS BART determination and other rulemaking that recognizes the economic interests of CAP and its customers and constituents.</p> <p>Accomplishment: Actively participate in matters relating to the ongoing EPA NEPA process. Responded to EPA's Supplemental Proposal for greenhouse gas regulation for NGS. Testified before EPA in December 2014 in support of Supplemental Proposal</p>
Replenishment	Create a new plan of operation for approval by 2015.	<p>Goal: Produce demand and obligation projections for CAGR Plan of Operation</p> <p>Accomplishment: RPA developed a sophisticated computer model of supply and demand in the CAP service area that was used to produce detailed projections of demand, obligation and enrollment for the 2015 CAGR Plan of Operation. RPA supported these projections with extensive documentation and multiple presentations to the CAGR Committee, Board and the public. ADWR certified that these projections met the statutory requirements for Plan adoption.</p>
Leadership & Public Trust	Actively engage at national, state and regional levels to promote the interest of CAP and its constituents	<p>Goal: Maintain CAP's participation in national organizations that advocate for water interests in Washington DC such as National Water Resources Association (NWRA), Family Farm Alliance, American Water Works Association (AWWA), Association of Metropolitan Water Agencies and Western Urban Water Coalition.</p> <p>Accomplishment: Sponsored multiple aspects of Summer NWRA Conference and provided keynote address in 2014; participated on two panels at 2015 Family Farm Alliance Annual Conference; participated on panel discussion regarding agricultural efficiencies for the Urban Water Coalition; presented on NGS at the AWWA annual conference and participated in planning regarding power issues as a member of AWWA Water Utility Council.</p> <p>Goal: Execute state and federal measures outlined in the Legislative Outreach Plan</p> <p>Accomplishment: Established outreach and educational campaign for legislatively extending CAP's four-cent tax and CAGR de-enrollment. Successfully gained support and passage of those two bills. Actively supported Bill Williams River and Pascua Yaqui legislation, which both passed. Completed 88% of the Legislative Outreach Plan.</p>

STRATEGIC INITIATIVES & PUBLIC POLICY  
 ACCOMPLISHMENTS - 2014 AND 2015

Key Result Area	Strategy	2014-2015 Goals & Accomplishments
	Actively engage at national, state and regional levels to promote the interest of CAP and its constituents	<p>Goal: Participate in state water management activities that involve CAP interests.</p> <p>Accomplishment: Attend ADWR monthly coordination meetings. Take leadership and coordination with ADWR and stakeholders on shortage and other Colorado River water supply issues. Attend quarterly AWBA meetings and work with AWBA staff on agenda items and presentations before the Commission.</p> <hr/> <p>Goal: Continue to develop relationships with municipal stakeholders and organizations.</p> <p>Accomplishment: Attended more than 20 AMWUA board meetings. Conducted joint AMWUA/CAP meeting. Invited more than 10 municipal reps for tours and briefings of CAP. Three CAP staff visits to municipal water and wastewater treatment plants. There were 24 monthly newsletters produced for 2014 and 2015.</p>
Leadership & Public Trust	Establish more effective working relationships with Native American tribes and agriculture customers (including irrigation districts)	<p>Goal: Develop relationships with agricultural and Native American tribal stakeholders and organizations. Organize and/or hold a minimum of 3 meetings per year in 2014 and 2015.</p> <p>Accomplishment: Hosted two tribal workshops and various meetings with tribal interests; hosted two Agricultural interest luncheon meetings.</p>
	Implement Strategic Planning that reflects the Board's policies and directions, and that links to organization-wide business planning	<p>Goal: Manage and update the CAP Internal Strategic Plan so that it is in alignment with the Board's Strategic Plan.</p> <p>Accomplishment: Continually updated Integrated Strategic Plan and conducted review of Key Result Areas (KSAs) and KSOs as a 2015 update.</p>
	Continue to support functions across the CAP organizations	<p>Goal: Support interdisciplinary teams and other CAP departments with strategic and business advice and written materials.</p> <p>Accomplishment: Staff participates on all Cloud Committees and various Ad-Hoc Committees as well as participation on two Teaming Up groups. Staff also supported departments, including but not limited to, Colorado River Programs, RPA, Communications and Water Ops. Coordinated multiple meetings across departments to address timely issues, including drought and shortage, as well as to facilitate other outreach efforts. Assisted with production of several written materials related to shortage, four-cent tax, CAGR de-enrollment, among others.</p>

STRATEGIC INITIATIVES & PUBLIC POLICY  
**BUSINESS GOALS - 2016 AND 2017**

Key Result Area	Strategy	2016-2017 Goals
Water Supply	Manage the Colorado River to optimize CAP water availability, augment supplies, and manage risk	<p>Implement interstate cooperative agreements to conserve Colorado River water and protect elevations in Lake Mead/Powell.</p> <p>Measure/Target: Provide \$2M to Pilot System Conservation Agreement and related programs to conserve Colorado River water with a target of 100% completion.</p>
	Participate in management of the Colorado River to optimize CAP water availability	<p>Participate in implementation of Minute 319 and development of a successor agreement with Mexico.</p> <p>Measure/Target: Complete Minute 319 commitments including payment of \$833,333.33 for pilot conservation project, and prepare/present framework for successor agreement and present to CAWCD Board for consideration with a target of 100% completion.</p>
	Identify and manage risks posed by shortage, drought, and climate change	<p>Present probabilities for the risk of shortage and identify approaches to reduce the risks addressing structural imbalance including losses in the Lower Basin and evaporation losses.</p> <p>Measure/Target: Provide updates on risk of shortage to Board. Prepare plan to address components of structural deficit, including losses in Lower Basin and present to the CAWCD Board. Implement \$150k per year for snowpack augmentation or other appropriate water augmentation programs.</p>
	Finalize agreements and implement CAP's ability to wheel non-project water	<p>Reach agreement with the BOR and stakeholders on a CAP wheeling program.</p> <p>Measure/Target: Standard form wheeling agreement approved by the Bureau and Board with a target of agreement with the Bureau accomplished in 2016 and wheeling program implemented in 2017.</p>
	Work collaboratively to evaluate potential future supply and demand imbalances in the CAP service area	<p>Provide timely analysis of supply &amp; demand issues in the CAP service area for use in forecasting and increasing understanding of resource options and issues.</p> <p>Measure/Target: RPA's forecast products are in regular use by internal and external customers and stakeholders. With a target of projections produced for long-range financial plan in 2016. Publication of a comprehensive analysis of supply and demand in 2017</p>
	Prepare for recovery of water stored by the AWBA	<p>Implement appropriate aspects of the Joint Recovery Plan.</p> <p>Measure/Target: Key agreements reached with recovery partners for near-term capacity, and refined analysis of mid and long-range recovery capacity. With a target of securing recovery agreements in each Active Management Area (AMA) in 2016. Will reach agreement with Bureau on firming framework by 2017 and complete feasibility studies and design work to begin permitting facilities in 2017.</p>

STRATEGIC INITIATIVES & PUBLIC POLICY  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
Water Supply	Respond to changing reliability needs of our customers	Develop Supplemental Firming program for M&I subcontractors. Measure/Target: CAP is able to offer supplemental firming agreements with interested parties with a target of reaching agreement on supplemental firming framework in 2016 and execution of firming agreements in 2017.
	Acquire and maintain an appropriate mix of long-term and short-term water supplies to meet future obligations.	Acquire sufficient water supplies to meet current obligations. Measure/Target: Acre-feet of water supply acquired to meet annual obligations with the target of acquiring up to 5,037 AF/yr of additional water supplies by the end of 2017.
Replenishment	Manage CAGR D's annual performance of replenishment activities	Meet annual replenishment obligations. Measure/Target: Acre-feet of water acquired for replenishment reserve and acre-feet of water replenished to meet annual obligations with the target of ADWR approval of 2015 and 2016 Replenishment District annual reports.
	Regularly review CAGR D status as compared to projections in the Plan of Operation	Produce an Enhanced CAGR D Annual Report each year. Measure/Target: Publication and distribution of document to CAGR D stakeholder list with the target of producing and distributing Enhanced Annual Report by end of October 2016 and 2017.
		Contribute to long-range planning and analysis for the CAGR D Measure/Target: RPA's projections and analysis are incorporated by the CAGR D. With a target of updated methodology for Annual Membership Dues implemented in 2016. Enhanced Annual Reporting efforts in 2016 and 2017.
Leadership & Public Trust	Actively engage at national, state and regional levels to promote the interest of CAP and its constituents	Execute state and federal measures outlined in the Legislative Outreach Plan Measure/Target: Complete minimum 75% of items in plan. With a target of 75% of items in plan.
		Maintain CAP's participation in national organizations that advocate for water interests in Washington, D.C. Measure/Target: Participate regularly in the following organizations: National Water Resources Association, Family Farm Alliance, American Water Works Association, Association of Metropolitan Water Agencies, and Western Urban Water Coalition. With a target of full completion of goal.

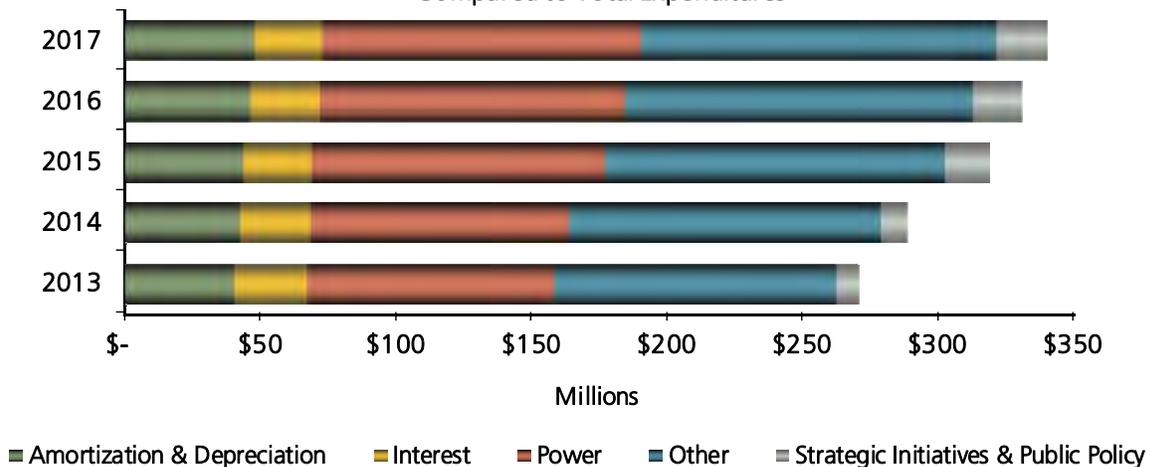
STRATEGIC INITIATIVES & PUBLIC POLICY  
 BUSINESS GOALS - 2016 AND 2017

Key Result Area	Strategy	2016-2017 Goals
	Actively engage at national, state and regional levels to promote the interest of CAP and its constituents	<p>Participate in state water management activities that involve CAP interests.</p> <p>Measure/Target: Participate regularly in the following organizations: Quarterly CAP/ADWR meetings, Arizona Chamber of Commerce water committees, Greater Phoenix Chamber of Commerce water committees, AMWUA board meetings, SRP board meetings and Arizona Water Bank Association meetings.</p> <hr/> <p>Continue to develop relationships with municipal stakeholders and organizations.</p> <p>Measure/Target: With a target of twelve newsletters annually and 3 briefing and tours annually; will meet these quotas for 2016 and 2017.</p>
Leadership & Public Trust	Improve working relationships with Native American tribes, municipal and agricultural customers	<p>Strengthen relationships with agricultural, municipal and Native American tribal stakeholders and organizations.</p> <p>Measure/Target: Organize and/or hold a minimum of 3 meetings per year with tribal and agricultural stakeholders, and monthly meetings with municipal customers.</p>
	Implement Strategic Planning that reflects the Board's policies and directions, and that links to organization-wide business planning	<p>Manage and update the CAP Internal Strategic Plan to ensure continuing alignment with the Board's Strategic Plan.</p> <p>Measure/Target: To meet the goal of managing and updating CAP Internal Strategic Plan ensuring alignment with the Board's Strategic Plan.</p> <hr/> <p>Work with the Board of Directors to update the 2010 CAWCD Board of Directors Strategic Plan.</p> <p>Measure/Target: Publish the updated plan in early 2016.</p>
Power	Actively manage and respond to legislative, legal and regulatory issues impacting NGS	<p>Continue to work collaboratively with all stakeholders, legislators and state and federal agencies to further accomplish resolution to the EPA's NGS BART and greenhouse gas determinations and other rulemaking that recognizes the economic interests of CAP and its customers and constituents.</p> <p>Measure/Target: To meet the goal of continuing to work collaboratively with all stakeholders, legislators and state and federal agencies to form resolution to the EPA's NGS BART and greenhouse gas determinations and other rulemaking.</p>

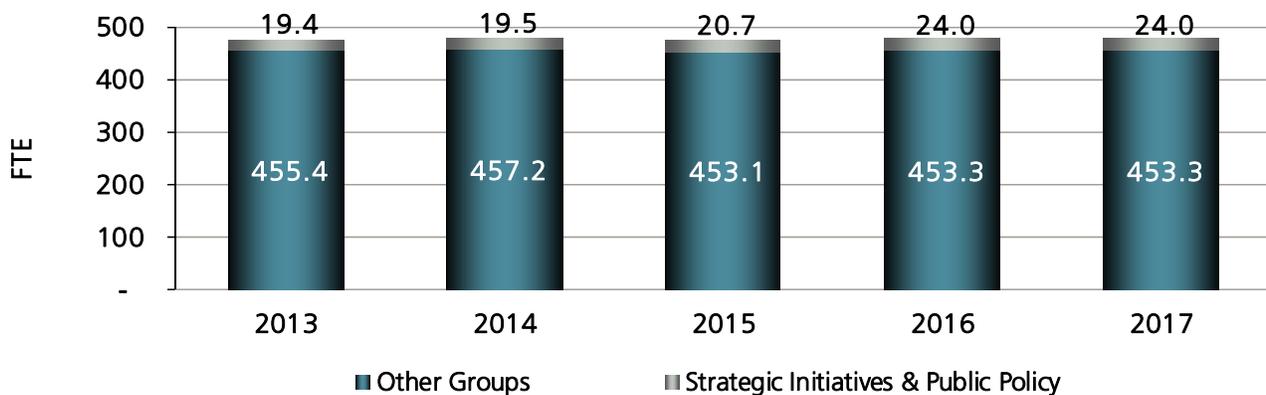
# STRATEGIC INITIATIVES & PUBLIC POLICY BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating Expenses</b>					
Salaries & wages	\$ 1,813.1	\$ 1,887.9	\$ 1,984.9	\$ 2,298.4	\$ 2,367.4
Outside services	1,182.2	2,498.1	5,078.6	4,337.4	4,096.4
Materials & supplies	13.5	15.1	11.7	14.2	14.2
Other expenses	5,475.1	5,670.3	9,748.6	11,233.9	11,933.1
<b>Total Operating Expenses</b>	<b>\$ 8,483.9</b>	<b>\$ 10,071.4</b>	<b>\$ 16,823.8</b>	<b>\$ 17,883.9</b>	<b>\$ 18,411.1</b>
<b>Expenditures by Fund</b>					
<b>Operating Expenses</b>					
General Fund	\$ 1,736.6	\$ 1,952.4	\$ 7,145.5	\$ 8,275.3	\$ 8,432.4
CAGR D	6,747.3	8,119.0	9,678.3	9,608.6	9,978.7
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 8,483.9</b>	<b>\$ 10,071.4</b>	<b>\$ 16,823.8</b>	<b>\$ 17,883.9</b>	<b>\$ 18,411.1</b>
<b>Capital Expenditures</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>380.0</b>	<b>550.0</b>
<b>Total Expenditures</b>	<b>\$ 8,483.9</b>	<b>\$ 10,071.4</b>	<b>\$ 16,823.8</b>	<b>\$ 18,263.9</b>	<b>\$ 18,961.1</b>
<b>Staffing (FTE)</b>	<b>19.4</b>	<b>19.5</b>	<b>20.7</b>	<b>24.0</b>	<b>24.0</b>

Strategic Initiatives & Public Policy Expenditures  
Compared to Total Expenditures



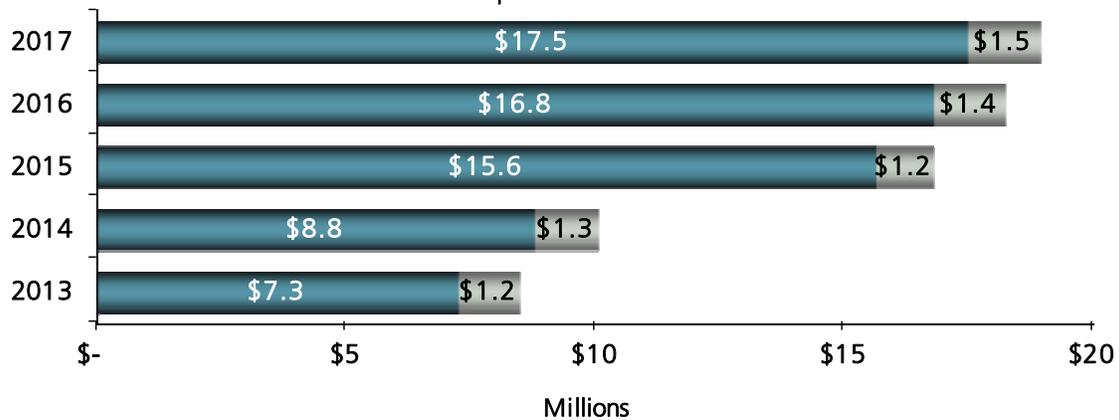
Strategic Initiatives & Public Policy Staffing  
Compared to Total Staffing



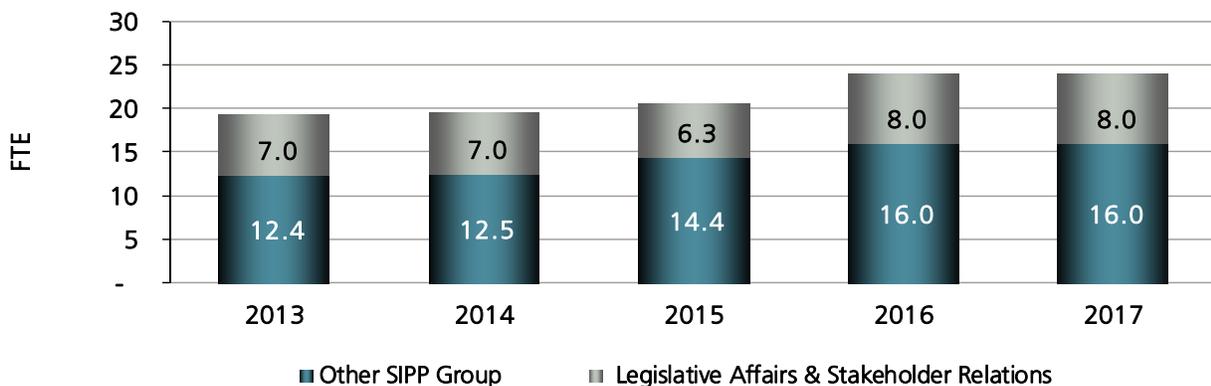
STRATEGIC INITIATIVES & PUBLIC POLICY  
 LEGISLATIVE AFFAIRS & STAKEHOLDER RELATIONS

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 788.0	\$ 813.0	\$ 744.4	\$ 868.5	\$ 894.6
Outside services	349.9	349.7	351.4	473.0	473.0
Materials & supplies	7.1	6.7	8.9	7.5	7.5
Other expenses	87.2	109.7	84.0	97.3	97.6
<b>Total Operating Expenses</b>	<b>\$ 1,232.2</b>	<b>\$ 1,279.1</b>	<b>\$ 1,188.7</b>	<b>\$ 1,446.3</b>	<b>\$ 1,472.7</b>
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 1,232.2	\$ 1,279.1	\$ 1,188.7	\$ 1,446.3	\$ 1,472.7
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,232.2</b>	<b>\$ 1,279.1</b>	<b>\$ 1,188.7</b>	<b>\$ 1,446.3</b>	<b>\$ 1,472.7</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,232.2</b>	<b>\$ 1,279.1</b>	<b>\$ 1,188.7</b>	<b>\$ 1,446.3</b>	<b>\$ 1,472.7</b>
Staffing (FTE)	7.0	7.0	6.3	8.0	8.0

Strategic Initiatives & Public Policy  
 Total Expenditures

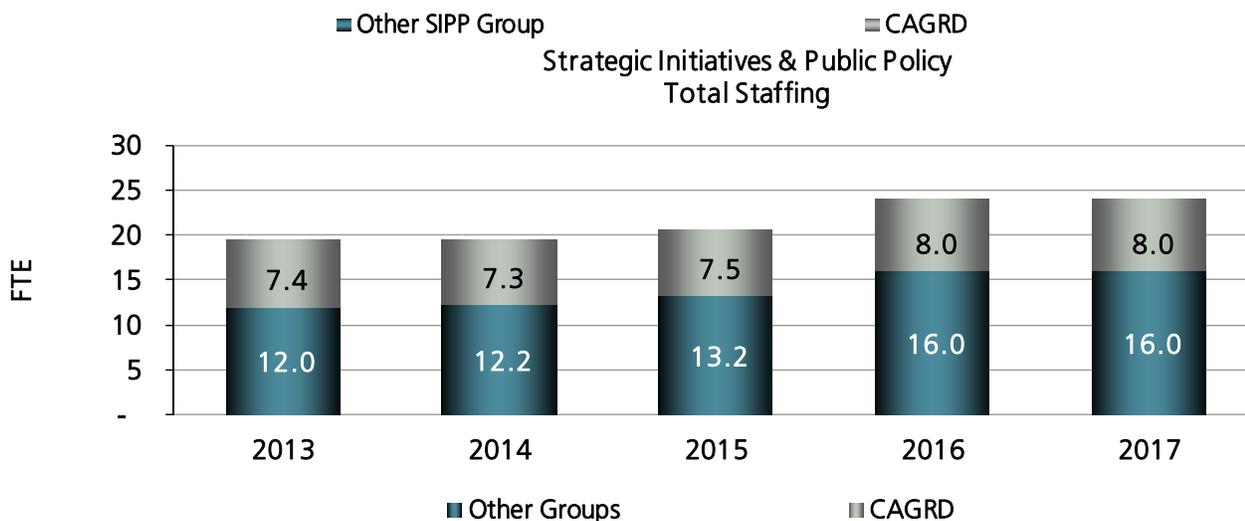
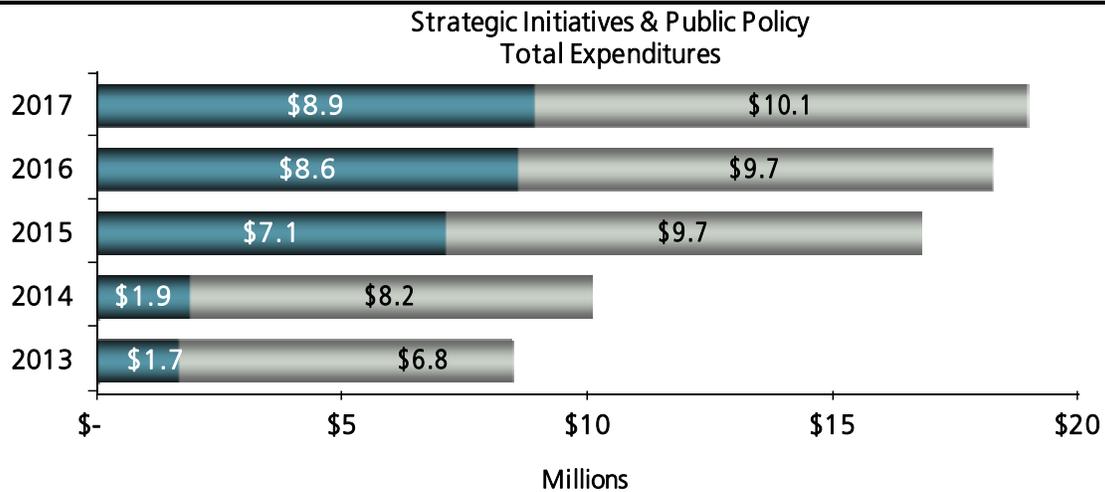


Strategic Initiatives & Public Policy  
 Total Staffing



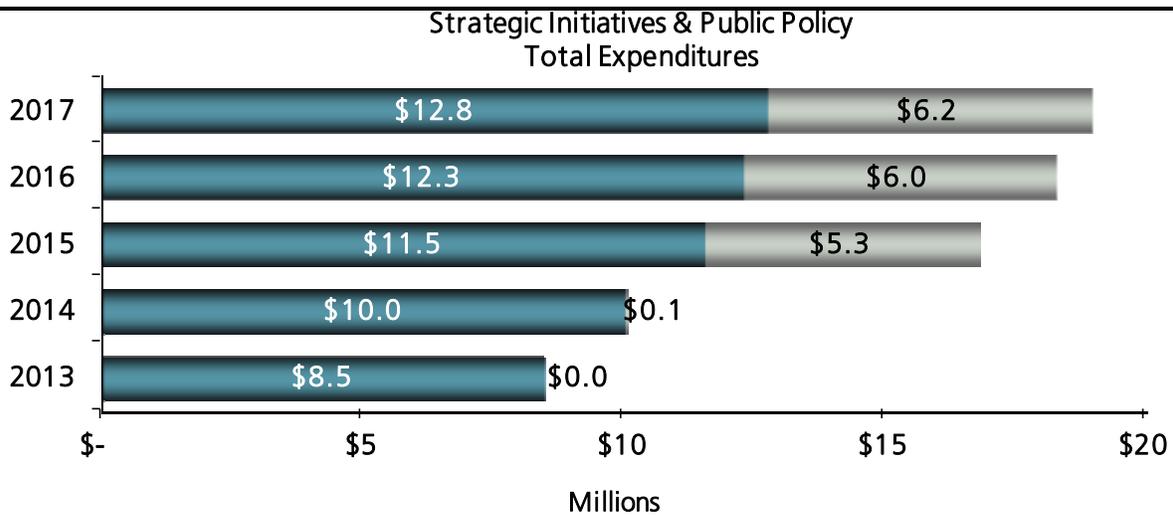
STRATEGIC INITIATIVES & PUBLIC POLICY  
CAGR

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 619.3	\$ 619.6	\$ 634.9	\$ 704.0	\$ 725.2
Outside services	813.1	2,030.8	2,302.9	1,328.4	980.4
Materials & supplies	-	0.8	-	1.2	1.2
Other expenses	5,379.9	5,537.8	6,776.6	7,645.0	8,343.9
<b>Total Operating Expenses</b>	<b>\$ 6,812.3</b>	<b>\$ 8,189.0</b>	<b>\$ 9,714.4</b>	<b>\$ 9,678.6</b>	<b>\$ 10,050.7</b>
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 65.0	\$ 70.0	\$ 36.1	\$ 70.0	\$ 72.0
CAGR	6,747.3	8,119.0	9,678.3	9,608.6	9,978.7
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 6,812.3</b>	<b>\$ 8,189.0</b>	<b>\$ 9,714.4</b>	<b>\$ 9,678.6</b>	<b>\$ 10,050.7</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ 6,812.3</b>	<b>\$ 8,189.0</b>	<b>\$ 9,714.4</b>	<b>\$ 9,678.6</b>	<b>\$ 10,050.7</b>
Staffing (FTE)	7.4	7.3	7.5	8.0	8.0



STRATEGIC INITIATIVES & PUBLIC POLICY  
**COLORADO RIVER PROGRAMS**

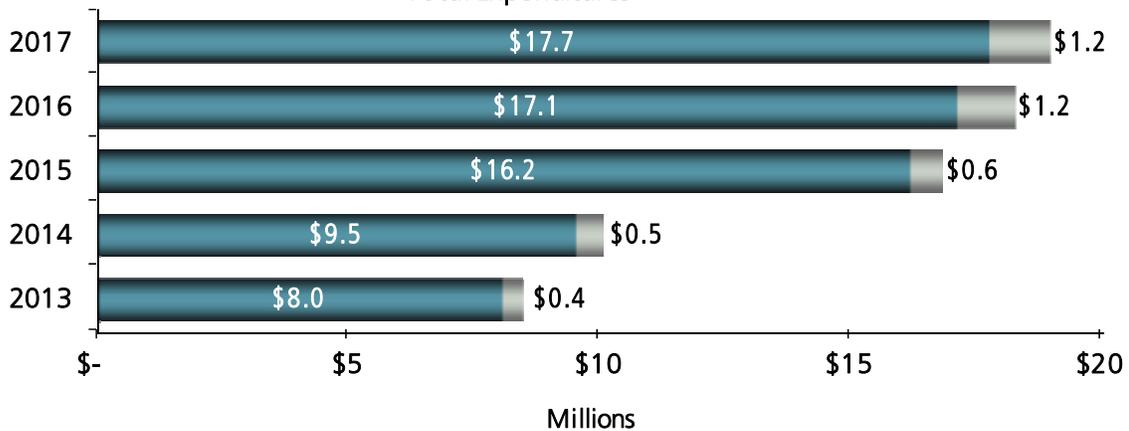
(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ -	\$ 41.8	\$ 240.8	\$ 267.9	\$ 275.9
Outside services	-	-	2,172.6	2,241.0	2,458.0
Materials & supplies	-	-	0.3	0.5	0.5
Other expenses	-	11.9	2,870.5	3,473.6	3,473.6
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ 53.7</b>	<b>\$ 5,284.2</b>	<b>\$ 5,983.0</b>	<b>\$ 6,208.0</b>
Expenditures by Fund					
Operating Expenses					
General Fund	\$ -	\$ 53.7	\$ 5,284.2	\$ 5,983.0	\$ 6,208.0
CAGR D	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ 53.7</b>	<b>\$ 5,284.2</b>	<b>\$ 5,983.0</b>	<b>\$ 6,208.0</b>
Capital Expenditures	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ -</b>	<b>\$ 53.7</b>	<b>\$ 5,284.2</b>	<b>\$ 5,983.0</b>	<b>\$ 6,208.0</b>
Staffing (FTE)	-	0.4	2.7	3.0	3.0



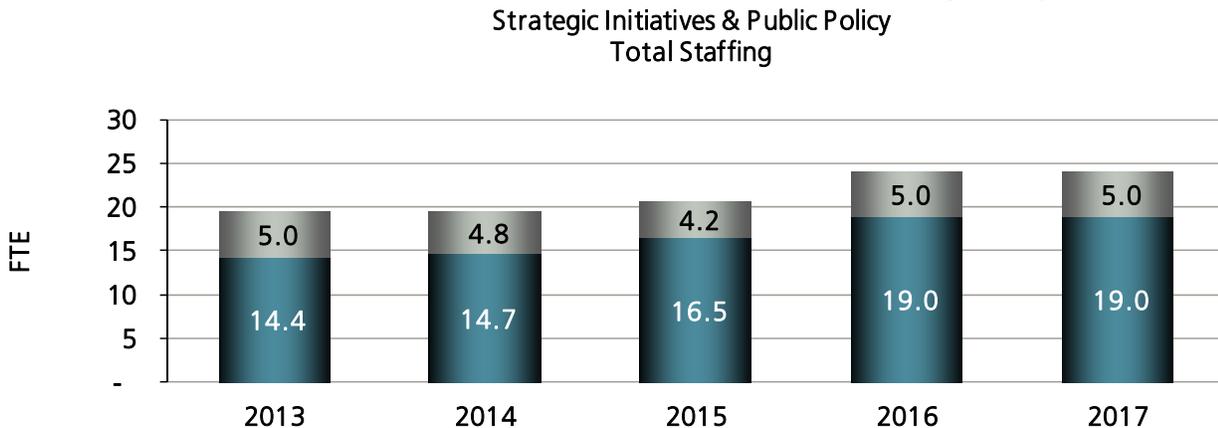
STRATEGIC INITIATIVES & PUBLIC POLICY  
 RESOURCE PLANNING & ANALYSIS

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Operating Expenses					
Salaries & wages	\$ 405.8	\$ 413.5	\$ 364.8	\$ 458.0	\$ 471.7
Outside services	19.2	117.6	251.7	295.0	185.0
Materials & supplies	6.4	7.6	2.5	5.0	5.0
Other expenses	8.0	10.9	17.5	18.0	18.0
<b>Total Operating Expenses</b>	<b>\$ 439.4</b>	<b>\$ 549.6</b>	<b>\$ 636.5</b>	<b>\$ 776.0</b>	<b>\$ 679.7</b>
Expenditures by Fund					
Operating Expenses					
General Fund	\$ 439.4	\$ 549.6	\$ 636.5	\$ 776.0	\$ 679.7
CAGR	-	-	-	-	-
Other Funds and Accounts	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 439.4</b>	<b>\$ 549.6</b>	<b>\$ 636.5</b>	<b>\$ 776.0</b>	<b>\$ 679.7</b>
Capital Expenditures	-	-	-	380.0	550.0
<b>Total Expenditures</b>	<b>\$ 439.4</b>	<b>\$ 549.6</b>	<b>\$ 636.5</b>	<b>\$ 1,156.0</b>	<b>\$ 1,229.7</b>
Staffing (FTE)	5.0	4.8	4.2	5.0	5.0

Strategic Initiatives & Public Policy  
 Total Expenditures



Strategic Initiatives & Public Policy  
 Total Staffing



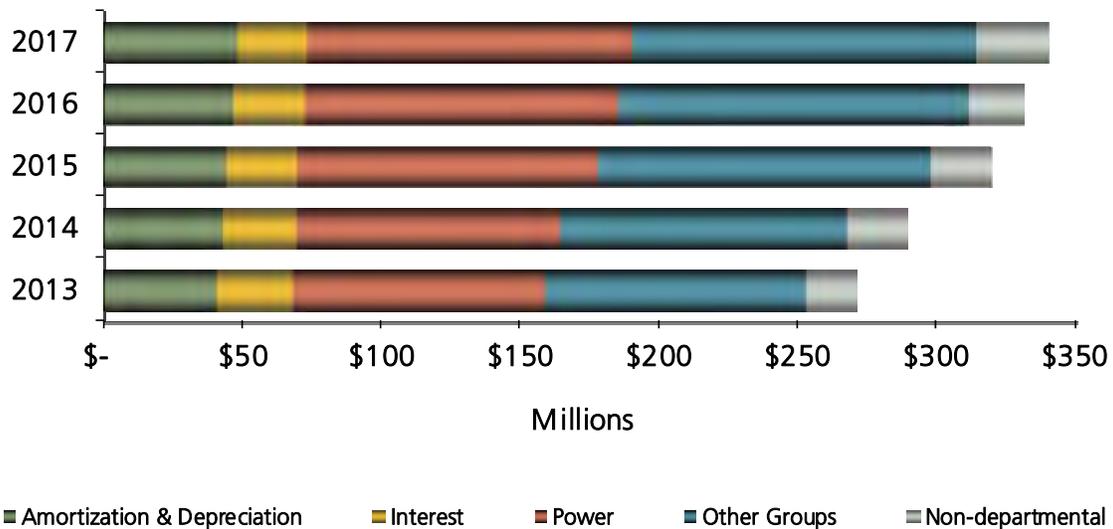
Other SIPP Group      Resource Planning & Analysis



# NON-DEPARTMENTAL BUDGET SUMMARY

(Thousands)	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
<b>Operating &amp; Non-operating Expenses</b>					
Salaries & benefits	\$ 18,881.5	\$ 19,322.5	\$ 20,018.0	\$ 18,661.1	\$ 19,631.6
Pumping power & capacity charges	90,790.0	94,895.0	107,992.0	112,379.0	116,807.0
Transmission	4,962.5	5,659.3	5,036.9	3,607.0	3,663.0
Amortization & depreciation	40,306.0	42,509.0	43,849.0	46,381.0	47,966.0
Interest expense	27,261.0	26,407.0	25,385.0	25,865.0	25,089.0
Other expenses	(11,874.2)	(10,161.2)	(12,993.6)	(10,840.6)	(9,528.3)
<b>Total Operating &amp; Non-operating Expenses</b>	<b>\$ 170,326.8</b>	<b>\$ 178,631.6</b>	<b>\$ 189,287.3</b>	<b>\$ 196,052.5</b>	<b>\$ 203,628.3</b>
<b>Expenditures by Fund</b>					
<b>Operating &amp; Non-operating Expenses</b>					
General Fund	\$ 176,868.6	\$ 183,917.2	\$ 195,876.8	\$ 201,777.3	\$ 208,371.0
CAGR Account	1,337.6	1,299.2	1,282.7	1,422.3	1,907.7
Other (see note)	(7,879.4)	(6,584.8)	(7,872.2)	(7,147.1)	(6,650.4)
<b>Total Operating &amp; Non-operating Expenses</b>	<b>\$ 170,326.8</b>	<b>\$ 178,631.6</b>	<b>\$ 189,287.3</b>	<b>\$ 196,052.5</b>	<b>\$ 203,628.3</b>
<b>Capital Expenditures</b>	<b>6,360.6</b>	<b>6,844.1</b>	<b>9,823.8</b>	<b>7,984.4</b>	<b>11,734.1</b>
<b>Total Expenditures</b>	<b>\$ 176,687.4</b>	<b>\$ 185,475.7</b>	<b>\$ 199,111.1</b>	<b>\$ 204,036.9</b>	<b>\$ 215,362.4</b>

Non-Departmental  
Compared to Total Expenditures



FTEs	2013 Actuals	2014 Actuals	2015 Projection	2016 Budget	2017 Budget
Vacancy/Salary Savings Equivalent	-	-	(1.3)	(15.0)	(15.0)

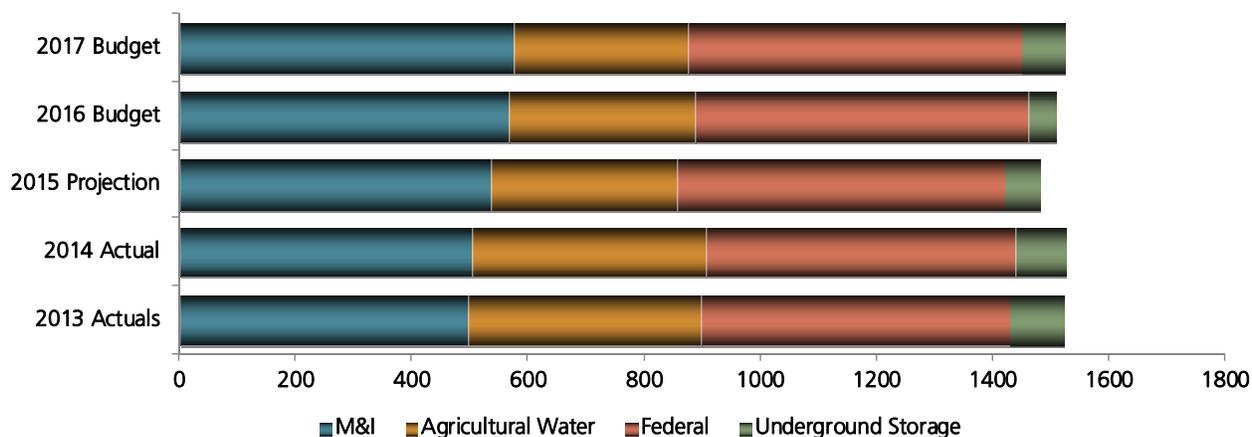


# WATER DELIVERIES

(Acre-Feet)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Municipal &amp; Industrial Water</b>					
Subcontract	455,279	459,733	501,979	532,036	540,502
Non-subcontract	40,135	43,519	35,000	35,000	35,000
Temporary water use permits	980	266	500	410	410
Subtotal	496,394	503,518	537,479	567,446	575,912
<b>Agricultural Water</b>					
Settlement pool	400,000	399,903	319,078	319,928	300,000
Excess	817	838	-	-	-
Subtotal	400,817	400,741	319,078	319,928	300,000
<b>Federal Water</b>					
On-reservation	151,621	149,773	205,558	205,437	203,057
Off-reservation	381,024	384,508	357,368	367,016	369,296
Subtotal	532,645	534,281	562,926	572,453	572,353
<b>Interstate Water Banking</b>					
	-	-	-	-	-
<b>Underground Storage Water</b>					
Direct incentive	5,334	1,470	1,745	1,153	4,200
Direct AWBA	53,640	54,839	28,618	12,800	29,800
Indirect incentive	7,584	13,929	6,533	5,480	6,184
Indirect AWBA	23,590	17,182	21,830	27,000	33,948
Subtotal	90,148	87,420	58,726	46,433	74,132
Total water deliveries	1,520,004	1,525,960	1,478,209	1,506,260	1,522,397
Credit transfer to CAGR	13,323	9,706	10,121	12,729	12,625
Total water deliveries with credits	1,533,327	1,535,666	1,488,330	1,518,989	1,535,022

## Water Deliveries



# WATER REVENUE GENERAL FUND

(Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Water O&amp;M Charges</b>					
<b>Municipal &amp; Industrial Water</b>					
Subcontract	\$ 56,789.2	\$ 63,821.9	\$ 75,020.8	\$ 82,183.6	\$ 86,604.6
Non-subcontract	5,407.0	6,321.5	5,425.0	5,565.0	5,740.0
Temporary water use permits	377.2	154.0	125.0	201.9	201.9
Subtotal	62,573.4	70,297.4	80,570.8	87,950.5	92,546.5
<b>Agricultural Water</b>					
Settlement Pool	18,188.2	19,933.1	13,052.6	13,829.0	18,613.2
Excess	102.9	121.3	-	-	-
Subtotal	18,291.1	20,054.4	13,052.6	13,829.0	18,613.2
<b>Federal Water</b>	68,420.6	75,828.4	84,129.3	88,426.8	91,708.1
<b>Interstate Water Banking</b>	-	-	-	-	-
<b>Underground Storage Water</b>					
Direct incentive	672.1	211.7	270.5	183.3	688.8
Direct AWBA	6,758.6	7,896.8	4,435.8	2,035.2	4,887.2
Indirect incentive	955.6	2,005.8	1,012.6	871.3	1,014.2
Indirect AWBA	2,972.3	2,477.7	3,383.7	4,293.0	5,567.5
Water storage tax - AWBA	(8,715.5)	(7,166.3)	(3,946.8)	(5,101.2)	(8,941.9)
Subtotal	2,643.1	5,425.7	5,155.8	2,281.6	3,215.8
Total water deliveries	151,928.2	171,605.9	182,908.5	192,487.9	206,083.6
Adjustment	-	-	(2,277.0)	-	-
Credit transfer to CAGR	1,918.5	1,397.7	1,568.8	2,023.9	2,070.5
Total water O&M charges	\$ 153,846.7	\$ 173,003.6	\$ 182,200.3	\$ 194,511.8	\$ 208,154.1
<b>Capital Charges</b>					
M&I subcontractors	\$ 9,312.2	\$ 12,416.0	\$ 13,654.9	\$ 14,281.4	\$ 46,073.8
M&I non-subcontractors	1,961.0	2,827.1	2,284.6	2,165.7	2,922.2
Agriculture subcontractors	12.3	16.9	-	-	-
Underground storage facilities	145.3	234.8	174.2	169.5	179.6
Total capital charges	\$ 11,430.8	\$ 15,494.8	\$ 16,113.7	\$ 16,616.6	\$ 49,175.6

Note: Minor differences due to rounding.

# CENTRAL ARIZONA PROJECT RATE SCHEDULE

## DELIVERY RATES FOR VARIOUS CLASSES OF WATER SERVICE

(The Letter Designations in the Formulas refer to the Rate Components shown below)

Units = \$/acre-foot

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>Firm</u> <u>2016</u>	<u>Advisory</u> <u>2017</u>
<b><u>Municipal and Industrial</u></b>					
Long Term Subcontract (B+C) <sup>1</sup>	\$ 129	\$ 146	\$ 157	\$ 161	\$ 166
Non-Subcontract (A+B+C) <sup>2</sup>	144	166	179	184	190
Recharge (A+B+C) <sup>3</sup>	144	166	179	184	190
AWBA Interstate Recharge (A+B+C+D) <sup>4</sup>	168	189	n.p.	n.p.	n.p.
<b><u>Federal</u></b> (B+C) <sup>5</sup>	\$ 129	\$ 146	\$ 157	\$ 161	\$ 166
<b><u>Agricultural</u></b>					
Settlement Pool (C) <sup>6</sup>	\$ 53	\$ 67	\$ 75	\$ 76	\$ 79
<b><u>Agricultural Incentives</u></b> <sup>6</sup>					
Meet Settlement Pool Goals	\$ (6)	\$ (14)	\$ (18)	\$ (15)	\$ (14)
Meet AWBA/CAGRDR GSF Goals	(1)	(2)	(2)	(2)	(2)
Meet Recovery Goals	(1)	(2)	(2)	(2)	(2)

## RATE COMPONENTS

Units = \$/acre-foot

<b><u>Capital Charges</u></b>					
(A) Municipal and Industrial - Long Term Subcontract <sup>7</sup>	\$ 15	\$ 20	\$ 22	\$ 23	\$ 24
<b><u>Delivery Charges</u></b>					
(B) Fixed OM&R <sup>8</sup>	\$ 76	\$ 79	\$ 82	\$ 85	\$ 87
(C) Pumping Energy Rate 1 <sup>9</sup>	53	67	75	76	79
(D) Property Tax Equivalency <sup>10</sup>	24	23	n.p.	n.p.	n.p.
<b><u>Underground Water Storage O&amp;M</u></b> <sup>11</sup>					
Phoenix AMA	\$ 8	\$ 8	\$ 9	\$ 10	\$ 12
Tucson AMA	15	15	15	15	15
<b><u>Underground Water Storage Capital Charge</u></b> <sup>12</sup>					
Phoenix AMA	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15
Tucson AMA	9	9	9	9	9

Long-Term Municipal and Industrial (M&I) Subcontract: M&I subcontractors

Non-Subcontract: M&I users who are not subcontractors and the Central Arizona Groundwater Replenishment District (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 Long-term M&I subcontract include those users that hold an M&I subcontract.
- 2 Non-subcontract includes M&I users that are taking water under an agreement other than a subcontract and may also be referred to as "Excess" water. It is administered according to CAP's Access to Excess policy.
- 3 Recharge includes the AWBA, CAGR, BOR and M&I subcontract holders and other Arizona entities who have valid ADWR water storage permits and accrue long-term storage credits. It is administered according to CAP's Access to Excess policy.
- 4 The AWBA Interstate Recharge rate is currently not published (n.p.) and will be provided upon request as there is not any anticipation of water available for this class.
- 5 Federal water may also be referred to as "Indian" water.
- 6 Rate is the Pumping Energy Rate 1 component. Incentives may be earned for meeting delivery goals in three areas. Any incentives earned are applied to Settlement Pool deliveries.
- 7 For M&I subcontract water, the Capital Charge is paid on full allocation regardless of amount delivered and not included in delivery rates.
- 8 Fixed O&M costs divided by projected total water volumes plus components to fund capital replacements and a rate stabilization reserve. This amount is collected on all ordered water whether delivered or not.
- 9 The energy rate applies to all actual water volumes as opposed to scheduled. The calculation is pumping energy costs divided by projected volumes.
- 10 The rate is based upon the tax levy for the previous elapsed tax year, divided by the average water deliveries (excluding Federal deliveries and water storage credits) for the three previous completed delivery years (e.g., 2008, 2009 and 2010). This rate is currently not published (n.p.) and is available upon request, although it is not anticipated there will be water available for this class.
- 11 Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.
- 12 Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBA for M&I firming, CAGR, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.

# CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

## CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

Units = \$/acre-foot

	<u>2012/13</u>	<u>2013/14</u>	<u>2014/15</u>	<u>Firm 2015/16</u>	<u>Advisory 2016/17</u>
<b><u>Phoenix Active Management Area</u></b>					
Water & Replenishment Component <sup>1</sup>	\$ 137	\$ 160	\$ 172	\$ 179	\$ 186
Administrative Component <sup>2</sup>	44	45	45	45	42
Infrastructure & Water Rights Component <sup>3</sup>	204	245	294	353	353
Replenishment Reserve Charge <sup>4</sup>	52	58	63	67	70
<b>Total Assessment Rate (\$/AF)</b>	<b>\$ 437</b>	<b>\$ 508</b>	<b>\$ 574</b>	<b>\$ 644</b>	<b>\$ 651</b>
<b><u>Pinal Active Management Area</u></b>					
Water & Replenishment Component <sup>1</sup>	\$ 117	\$ 140	\$ 155	\$ 160	\$ 165
Administrative Component <sup>2</sup>	44	45	45	45	42
Infrastructure & Water Rights Component <sup>3</sup>	204	245	294	353	353
Replenishment Reserve Charge <sup>4</sup>	56	65	70	75	81
<b>Total Assessment Rate (\$/AF)</b>	<b>\$ 421</b>	<b>\$ 495</b>	<b>\$ 564</b>	<b>\$ 633</b>	<b>\$ 641</b>
<b><u>Tucson Active Management Area</u></b>					
Water & Replenishment Component <sup>1</sup>	\$ 161	\$ 183	\$ 196	\$ 202	\$ 206
Administrative Component <sup>2</sup>	44	45	45	45	42
Infrastructure & Water Rights Component <sup>3</sup>	204	245	294	353	353
Replenishment Reserve Charge <sup>4</sup>	65	75	80	85	90
<b>Total Assessment Rate (\$/AF)</b>	<b>\$ 474</b>	<b>\$ 548</b>	<b>\$ 615</b>	<b>\$ 685</b>	<b>\$ 691</b>
<b><u>Contract Replenishment Tax - Scottsdale <sup>5</sup></u></b>					
Cost of Water	\$ 137	\$ 144	\$ 166	\$ 179	\$ 184
Cost of Transportation	0	0	0	0	0
Cost of Replenishment	0	0	0	0	0
Administrative Component <sup>6</sup>	44	45	45	45	42
<b>Total Tax Rate (\$/AF)</b>	<b>\$ 181</b>	<b>\$ 189</b>	<b>\$ 211</b>	<b>\$ 224</b>	<b>\$ 226</b>

## ENROLLMENT & ACTIVATION FEES

Units = \$/Housing Unit

Enrollment Fee <sup>6</sup>	\$ 165	\$ 198	\$ 237	\$ 284	\$ 284
Activation Fee-Minimum <sup>7</sup>	\$ 163	\$ 196	\$ 235	\$ 282	\$ 282
Activation Fee-Phoenix AMA <sup>7</sup>	\$ 163	\$ 196	\$ 260	\$ 350	\$ 460
Activation Fee-Pinal Post-2007 <sup>7</sup>	\$ 163	\$ 196	\$ 260	\$ 350	\$ 460
Activation Fee-Tucson AMA <sup>7</sup>	\$ 163	\$ 196	\$ 250	\$ 320	\$ 400

## ANNUAL MEMBERSHIP DUES

### **Member Land Annual Membership Dues (\$/Lot) <sup>8</sup>**

Phoenix Active Management Area	\$ 9.87	\$ 13.19	\$ 15.45	\$ 20.78	tbd
Pinal Active Management Area	\$ 1.29	\$ 1.74	\$ 2.05	\$ 2.80	tbd
Tucson Active Management Area	\$ 6.24	\$ 8.38	\$ 9.87	\$ 13.21	tbd
<b><u>Member Service Area Annual Membership Dues (\$/AF) <sup>8</sup></u></b>	<b>\$ 14.88</b>	<b>\$ 20.08</b>	<b>\$ 23.67</b>	<b>\$ 32.34</b>	<b>tbd</b>

# CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGRD) ASSESSMENT RATES

## NOTES:

- 1 The Water & Replenishment Component covers the projected annual costs of satisfying replenishment obligations, including the purchase of long-term storage credits (LTSC) and the purchase and replenishment of water and effluent. For the Phoenix Active Management Area (AMA), replenishment is planned to be accomplished at direct underground storage facilities (UWFs) and groundwater savings facilities (GSFs). For the Pinal AMA, replenishment is planned to be accomplished at GSFs. For the Tucson AMA, replenishment is planned to be accomplished at USFs.
- 2 The Administrative Component covers CAGRD administrative costs, except labor-related costs associated with the acquisition of infrastructure and water rights. A \$2/AF has been added to this component to fund the Board's CAGRD conservation program.
- 3 The Infrastructure & Water Rights Component covers the cost to develop additional water supplies and the cost to construct additional infrastructure as the need arises.
- 4 The Replenishment Reserve Charge covers costs associated with establishing a replenishment reserve of LTSCs as provided in ARS Sections 48-3774.01 and 48-3780.01.
- 5 The components of the Contract Replenishment Tax—Scottsdale reflect the provisions in the Water Availability Status Contract to Replenish Groundwater between CAWCD and Scottsdale.
- 6 The Enrollment Fee is collected pursuant to the CAGRD Enrollment Fee and Activation Fee Policy adopted by the Board on May 1, 2008. A \$2 per housing unit is included in the Enrollment Fee to help fund CAGRD's conservation program.
- 7 The Activation Fees is in accordance with the Preliminary 2014/15—2019/20 CAGRD Activation fee schedule adopted by the Board on November 7, 2013.
- 8 The Annual Membership Dues for Member Lands (ML) and Member Service Areas (MSA) are pursuant to the ARS Sections 48-3772.A.8 and 48-3779 as well as the policy on Collection of CAGRD Annual Membership Dues adopted by the Board on April 7, 2011. The advisory rate beginning 2016 / 2017 listed as "to be determined" (tbd) as the membership dues formula requires discussion and possible revision before the 2016 / 2017 rates are established.

# PUMPING POWER COSTS

(General Fund)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Energy Purchases (MWH)</b>					
Waddell	38,503	31,047	33,230	30,515	32,720
Hoover B	150,206	147,555	142,228	141,688	139,000
Navajo	2,635,833	2,612,490	2,473,268	2,529,780	2,633,755
Energy Market Purchases	135,219	130,498	152,170	33,781	59,893
Total energy purchases	<u>2,959,761</u>	<u>2,921,590</u>	<u>2,800,896</u>	<u>2,735,764</u>	<u>2,865,368</u>
<b>Energy Rates (\$/MWH)</b>					
Hoover B	\$ 45.54	\$ 43.68	\$ 44.42	\$ 46.67	\$ 49.55
Navajo	30.77	31.63	37.99	38.52	39.00
Energy Market Purchases	30.78	33.46	23.16	27.00	29.00
Total average energy rates	<u>\$ 31.53</u>	<u>\$ 32.33</u>	<u>\$ 37.50</u>	<u>\$ 38.81</u>	<u>\$ 39.31</u>
<b>Energy Costs (\$000)</b>					
Hoover B	\$ 6,839.7	\$ 6,445.1	\$ 6,318.2	\$ 6,612.1	\$ 6,887.7
Navajo	81,111.2	82,629.0	93,951.1	97,455.8	102,713.8
Energy Market Purchases	4,161.8	4,366.3	3,523.7	912.1	1,736.9
Total pumping plant energy	<u>\$ 92,112.7</u>	<u>\$ 93,440.4</u>	<u>\$ 103,793.0</u>	<u>\$ 104,980.0</u>	<u>\$ 111,338.4</u>
Energy Shaping & Displacement Revenue	\$ -	\$ 793.3	\$ 189.6	\$ -	\$ -
Energy scheduling services	1,336.6	1,281.4	1,258.1	1,275.0	1,313.3
Energy Balancing Services	1,773.5	1,622.2	2,219.7	2,286.3	2,354.9
MWD agreement expense	98.6	99.3	94.4	82.0	82.0
Lake Pleasant adjustment	(5,102.5)	(2,341.3)	92.1	3,220.5	1,718.4
Lake Roosevelt adjustment	570.7	0.1	345.1	534.9	-
Net pumping energy	<u>\$ 90,789.6</u>	<u>\$ 94,895.4</u>	<u>\$ 107,992.0</u>	<u>\$ 112,378.7</u>	<u>\$ 116,807.0</u>



# FEDERAL DEBT SCHEDULE

(Thousands)

	2013 Actual	2014 Actual	2015 Projection	2016 Budget	2017 Budget
<b>Sources of Funds</b>					
Navajo-Related Revenues:					
SRP related revenues	\$ 25,388	\$ 26,163	\$ 26,948	\$ 27,756	\$ 28,589
Other NGS net revenues	(6,953)	(1,966)	(14,301)	(15,489)	(13,114)
Shaping & displacement	-	793	190	-	-
Net Revenues - NGS	18,435	24,990	12,837	12,267	15,475
Net Navajo Misc Revenues	2,371	786	1,500	1,530	1,561
Hoover 4.5 mil surcharge	3,081	3,305	3,000	3,000	3,000
Parker-Davis	2,710	2,762	2,710	2,710	2,710
Net CAP transmission revenues	470	(2,360)	(2,825)	(800)	-
Transmission line loss revenues	981	-	1,652	826	826
Land-related revenues:					
Land use (net)	507	181	1,013	292	455
Land sales (net)	-	-	-	1,605	-
Interest on deposits	717	931	760	790	840
Total Credits held by Federal Government	\$ 29,272	\$ 30,595	\$ 20,647	\$ 22,220	\$ 24,867
<b>Uses of Funds</b>					
Principal	\$ (26,343)	\$ (31,361)	\$ (31,361)	\$ (31,361)	\$ (32,929)
Interest	(27,261)	(26,407)	(25,386)	(24,364)	(23,343)
Gross Payment <i>(Due Jan. 20th following year-end)</i>	\$ (53,604)	\$ (57,768)	\$ (56,747)	\$ (55,725)	\$ (56,272)
<b>(Net Due) / Excess Funds in BDF</b>	\$ (24,332)	\$ (27,173)	\$ (36,100)	\$ (33,505)	\$ (31,405)
CAP NGS Energy Reconciliation	8,219	7,391	3,368	-	-
<b>Net Funds (Due to)/from Federal Government</b>	<b>\$ (16,113)</b>	<b>\$ (19,782)</b>	<b>\$ (32,732)</b>	<b>\$ (33,505)</b>	<b>\$ (31,405)</b>

# FEDERAL REPAYMENT OBLIGATION

(Thousands)

Payment Made January 20th	Beginning Balance Interest Bearing		Beginning Balance Non-Interest Bearing		Payment Due		
	Stage I	Stage II	Stage I	Stage II	Principal	Interest	Total
2016	\$567,913	\$191,675	\$319,011	\$93,833	\$31,361	\$25,385	\$56,746
2017	543,623	185,403	318,211	93,833	31,361	24,364	55,725
2018	519,333	179,132	317,411	93,833	32,929	23,343	56,272
2019	494,843	171,292	316,811	93,833	32,929	22,262	55,191
2020	470,354	163,453	316,211	93,833	32,929	21,182	54,111
2021	445,864	155,613	315,611	93,833	32,929	20,101	53,030
2022	421,374	147,774	315,011	93,833	40,456	19,021	59,477
2023	389,357	139,934	314,411	93,833	40,456	17,689	58,145
2024	357,341	132,095	313,811	93,833	40,456	16,357	56,813
2025	325,324	124,256	313,211	93,833	42,808	15,025	57,833
2026	293,157	114,064	312,761	93,833	42,808	13,609	56,417
2027	260,990	103,873	312,311	93,833	42,808	12,194	55,002
2028	228,824	93,682	311,861	93,833	42,808	10,778	53,586
2029	196,657	83,490	311,411	93,833	44,063	9,363	53,426
2030	163,236	73,299	310,961	93,833	44,063	7,905	51,968
2031	129,815	63,108	310,511	93,833	44,063	6,447	50,510
2032	96,393	52,916	310,061	93,833	44,454	4,990	49,444
2033	62,951	42,333	309,632	93,833	44,454	3,519	47,973
2034	29,489	31,750	309,223	93,833	44,454	2,047	46,501
2035	-	21,167	304,841	93,833	44,454	707	45,161
2036	-	10,583	270,970	93,833	44,454	354	44,808
2037	-	-	237,098	93,833	44,454	-	44,454
2038	-	-	203,227	83,250	44,454	-	44,454
2039	-	-	169,356	72,666	44,454	-	44,454
2040	-	-	135,485	62,083	44,454	-	44,454
2041	-	-	101,614	51,500	44,454	-	44,454
2042	-	-	67,742	40,916	44,454	-	44,454
2043	-	-	33,871	30,333	44,454	-	44,454
2044	-	-	-	19,750	10,583	-	10,583
2045	-	-	-	9,167	9,167	-	9,167
2046	-	-	-	-	-	-	-
					<b>\$1,172,425</b>	<b>\$276,642</b>	<b>\$1,449,067</b>

# PRO FORMA - SYSTEM REVENUE BONDS, SERIES 2015

Bond Component Serial Bonds:										
Maturity Date July 1st	Amount	Rate	Yield	Price	Yield to Maturity	Call Date	Call Price	Call Date For Arb Yield	Call Price For Arb Yield	Premium (-Discount)
2016	\$625,000	2.5%	0.65%	\$101.141						\$7,131.25
2017	1,030,000	2.5%	1.05%	102.321						23,906.30
2018	1,060,000	3.0%	1.45%	103.968						42,060.80
2019	1,090,000	3.0%	1.70%	104.543						49,518.70
2020	1,125,000	4.0%	1.95%	109.012						101,385.00
2021	1,170,000	4.0%	2.20%	109.463						110,717.10
2022	1,215,000	4.0%	2.45%	109.416						114,404.40
2023	1,265,000	5.0%	2.65%	116.114						203,842.10
2024	1,325,000	5.0%	2.85%	116.325						216,306.25
2025	1,395,000	5.0%	2.95%	117.056						237,931.20
2026	1,460,000	5.0%	3.10%	115.695 C	3.241%	07/01/2025	\$100.00	07/01/2025	\$100.00	229,147.00
2027	1,535,000	5.0%	3.25%	114.353 C	3.487%	07/01/2025	100.00	07/01/2025	100.00	220,318.55
2028	1,610,000	5.0%	3.35%	113.469 C	3.658%	07/01/2025	100.00	07/01/2025	100.00	216,850.90
2029	1,690,000	5.0%	3.45%	112.593 C	3.806%	07/01/2025	100.00	07/01/2025	100.00	212,821.70
2030	1,775,000	5.0%	3.55%	111.724 C	3.937%	07/01/2025	100.00	07/01/2025	100.00	208,101.00
2031	1,865,000	5.0%	3.65%	110.864 C	4.054%	07/01/2025	100.00	07/01/2025	100.00	202,613.60
2032	1,960,000	5.0%	3.70%	110.437 C	4.126%	07/01/2025	100.00	07/01/2025	100.00	204,565.20
2033	2,055,000	5.0%	3.75%	110.012 C	4.190%	07/01/2025	100.00	07/01/2025	100.00	205,746.60
2034	2,160,000	5.0%	3.80%	109.589 C	4.249%	07/01/2025	100.00	07/01/2025	100.00	207,122.40
2035	2,270,000	5.0%	3.85%	109.167 C	4.303%	07/01/2025	100.00	07/01/2025	100.00	208,090.90
<b>\$29,680,000</b>										<b>\$3,222,580.95</b>

Dated Date	12/15/2015	
Delivery Date	12/15/2015	
First Coupon	07/01/2016	
Par Amount	\$29,680,000.00	
Premium	3,222,580.95	
Production	\$32,902,580.95	110.857753%
Underwriter's Discount	(118,720.00)	(0.400000%)
Purchase Price	\$32,783,860.95	110.457753%
Net Proceeds	\$32,783,860.95	

# PRO FORMA - CAGR D REVENUE BONDS, SERIES 2016

Bond Component CAGR D 2016 Revenue Bonds:										
Maturity Date July 1st	Amount	Rate	Yield	Price	Yield to Maturity	Call Date	Call Price	Call Date For Arb Yield	Call Price For Arb Yield	Premium (-Discount)
2017	\$180,000	3.0%	0.85%	101.165						2,097.00
2018	335,000	3.0%	1.20%	102.745						9,195.75
2019	345,000	3.0%	1.50%	103.730						12,868.50
2020	355,000	3.0%	1.80%	104.102						14,562.10
2021	365,000	4.0%	2.10%	108.193						29,904.45
2022	380,000	4.0%	2.40%	108.259						31,384.20
2023	395,000	4.0%	2.60%	108.374						33,077.30
2024	410,000	4.0%	2.80%	108.109						33,246.90
2025	425,000	5.0%	3.10%	114.165						60,201.25
2026	445,000	5.0%	3.30%	113.820						61,499.00
2027	470,000	5.0%	3.50%	112.080 C	3.612%	07/01/2026	\$100.00	07/01/2026	\$100.00	56,776.00
2028	495,000	5.0%	3.65%	110.796 C	3.834%	07/01/2026	100.00	07/01/2026	100.00	53,440.20
2029	515,000	5.0%	3.80%	109.529 C	4.025%	07/01/2026	100.00	07/01/2026	100.00	49,074.35
2030	545,000	5.0%	3.95%	108.280 C	4.192%	07/01/2026	100.00	07/01/2026	100.00	45,126.00
2031	570,000	5.0%	4.05%	107.456 C	4.305%	07/01/2026	100.00	07/01/2026	100.00	42,499.20
2032	600,000	5.0%	4.15%	106.640 C	4.405%	07/01/2026	100.00	07/01/2026	100.00	39,840.00
2033	630,000	5.0%	4.25%	105.832 C	4.496%	07/01/2026	100.00	07/01/2026	100.00	36,741.60
2034	660,000	5.0%	4.35%	105.030 C	4.580%	07/01/2026	100.00	07/01/2026	100.00	33,198.00
2035	695,000	5.0%	4.45%	104.237 C	4.656%	07/01/2026	100.00	07/01/2026	100.00	29,447.15
2036	730,000	5.0%	4.50%	103.842 C	4.697%	07/01/2026	100.00	07/01/2026	100.00	28,046.60
<b>\$9,545,000</b>										<b>\$702,225.55</b>

Dated Date	12/15/2016	
Delivery Date	12/15/2016	
First Coupon	07/01/2017	
Par Amount	\$9,545,000.00	
Premium	702,225.55	
Production	\$10,247,225.55	107.356999%
Underwriter's Discount	(42,952.50)	(0.450000%)
Purchase Price	\$10,204,273.05	106.906999%
Net Proceeds	\$10,204,273.05	

# RECONCILIATION OF OPERATION, MAINTENANCE & REPLACEMENT COSTS

## CALCULATION OF FIXED OM&R

	2015		2016		2017	
	Projection	Published Rate	Budget	Published Rate	Budget	Advisory Rate
<i>(Thousands)</i>						
General Fund Operating Expenses	\$ 238,834.8		\$ 255,851.5		\$ 263,539.3	
Less Adjustments:						
Depreciation & Amortization of PSR	(43,848.8)		(46,381.0)		(47,966.0)	
Navajo accretion	(639.1)		(608.7)		(639.1)	
Pumping power and capacity charges	(107,992.0)		(112,378.7)		(116,807.0)	
Underground storage site O&M	(1,303.3)		(1,666.0)		(1,638.6)	
Extra Ordinary Maintenance (part of "Big R")	(277.0)		(3,180.9)		(3,097.7)	
NIA Allocation	-		(135.0)		-	
Bonding upfront Costs	(518.7)		-		-	
Other income	(498.8)		(455.1)		(328.5)	
Inventory Adjustment	(288.6)		(220.0)		(220.0)	
Contribution from Ag Forbearance	(4,263.8)		(4,501.7)		-	
Less Total Adjustments	(159,630.1)	-	(169,527.1)	-	(170,696.9)	
<b>Fixed O&amp;M</b>	<b>79,204.7</b>	<b>88,342.0</b>	<b>86,324.4</b>	<b>92,907.0</b>	<b>92,842.4</b>	<b>\$ 96,141.0</b>
<b>Total Pumping Power &amp; Capacity Charges</b>	<b>107,992.0</b>	<b>116,037.8</b>	<b>112,378.7</b>	<b>119,121.0</b>	<b>116,807.0</b>	<b>121,722.0</b>

## CALCULATION OF RECONCILED WATER RATES

	2015		2016		2017	
	Projection	Published Rates	Budget	Published Rate	Budget	Advisory Rate
<b>Water O&amp;M Costs</b> <i>(Thousands)</i>						
Fixed O&M	\$ 79,204.7	\$ 88,342.0	\$ 86,324.4	\$ 92,907.0	\$ 92,842.4	\$ 96,141.0
Pumping power (Energy Rate 1)	107,992.0	116,385.0	112,378.7	119,121.0	116,807.0	121,722.0
<b>Water Deliveries</b> <i>(Acre-Feet)</i>						
Billed Fixed OM&R Water Volumes & Credits (AF)	1,503,330	1,588,102	1,533,989	1,588,324	1,550,022	1,574,159
Energy Rate 1 Water Volumes (AF)	1,488,330	1,573,102	1,518,989	1,573,324	1,535,022	1,559,159
<b>Calculated Fixed OM&amp;R Rate</b> <i>(\$/AF)</i>	\$ 52.69	\$ 56.00	\$ 56.27	\$ 59.00	\$ 59.90	\$ 61.00
Capital Replacement Component	24.00	24.00	24.00	24.00	24.00	24.00
Rate Stabilization Component	2.00	2.00	2.00	2.00	2.00	2.00
Navajo Decommissioning Rate	0.20	0.20	0.22	0.22	0.24	0.24
Calculated Energy Rate 1	72.56	74.80	73.98	75.78	76.09	78.76
<b>Total Rates (\$/AF)</b>	<b>\$ 151.45</b>	<b>\$ 157.00</b>	<b>\$ 156.47</b>	<b>\$ 161.00</b>	<b>\$ 162.23</b>	<b>\$ 166.00</b>



# POLICIES, GUIDELINES & PRACTICES

## FINANCIAL AND OPERATIONAL OBJECTIVES

### The 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.

### General Manager and Senior Management

The General Manager (GM), in consultation with the Senior Management Team (SMT), using the directives provided in the Board's Human Resources Policy, establishes policies, programs and practices that protect the assets of CAP. Policies are in place that strive to recruit, select and retain qualified employees who, using established policies, programs and practices, will protect the resources that have been entrusted to their use and care by the public.

### Finance and Accounting

The finance and accounting guidelines and practices establish the basis for the overall financial planning and management framework at CAP. These guidelines and practices are established by accounting guidelines (i.e., Generally Accepted Accounting Principles (GAAP) and Government Accounting Standards Board (GASB)), laws and regulations, and internally developed procedures that help ensure the prudent and professional financial management practices needed to achieve and maintain long-term financial stability.



# BOARD SUMMARY AND GUIDING PRINCIPLES

Policy Name	Board Approval	Synopsis
<b>CAP Water Allocations</b>		
Water Allocation		<ul style="list-style-type: none"> <li>Federal Register Notice dated March 24, 1983, allocating CAP water</li> <li>Federal Register Notice dated February 5, 1992, allocating CAP water</li> </ul>
Procedures for Allocating Excess CAP Water for 2010 – 2014	06/04/09	Establishes: <ul style="list-style-type: none"> <li>maximum pools of excess water for each of the following uses:               <ul style="list-style-type: none"> <li>Arizona Water Banking Authority (AWBA) and Central Arizona Groundwater Replenishment District (CAGRDR) Replenishment Reserve</li> <li>CAGRDR Replenishment Obligation</li> <li>Municipal</li> <li>Industrial and Other</li> </ul> </li> </ul>
Policy Regarding the Relinquishment & Transfer of CAP Municipal & Industrial (M&I) Subcontract Allocations	09/06/96 11/07/02	Requires: <ul style="list-style-type: none"> <li>CAP to work with Arizona Department of Water Resources (ADWR) in all transfers and relinquishments</li> <li>all financial transactions be made through CAP</li> <li>financial arrangements be made in accordance with the policy</li> <li>no financial benefit to the transferring entity</li> <li>subcontractors outside CAP service area to notify CAP and ADWR of their intent to transfer</li> </ul>
<b>Environment</b>		
Environmental Compliance Policy	02/02/93	Requires: <ul style="list-style-type: none"> <li>CAP to comply with all applicable environmental laws and regulations</li> </ul>
CAGRDR Conservation Program	03/02/06	Provides for better understanding of the CAGRDR by its members and reduction in members' water use. Program components include: <ul style="list-style-type: none"> <li>education</li> <li>partnerships/collaboration</li> <li>study to determine groundwater use efficiency of CAGRDR Member Lands (ML)</li> <li>funding</li> </ul>

Policy Name	Board Approval	Synopsis
<b>CAP Facilities</b>		
Interstate Off-stream Underground Storage Policy	06/22/00	<p>Provides for:</p> <ul style="list-style-type: none"> <li>pricing philosophy for interstate excess water</li> <li>excess water for the interstate use is the lowest priority</li> <li>storage and recovery is consistent with state water management goals and CAP operational needs</li> <li>CAP is a party to agreements that use the CAP system or deliver to a CAP contractor or subcontractor</li> <li>CAP is a party to agreements for Intentionally Created Unused Apportionment</li> <li>interstate entity has a formal water resource plan to end reliance on interstate storage</li> </ul>
Recreational Trail Policy	06/20/02	<p>Provides for:</p> <ul style="list-style-type: none"> <li>CAP to make right-of-way available for multi-use non-motorized recreational trail</li> <li>trail to be located outside CAP's security fence</li> <li>CAP to facilitate agreements between municipality sponsors and Reclamation</li> <li>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</li> <li>CAP will consider development of trails on CAP-owned lands that are being operated as recharge projects</li> </ul>
Use of Excess Canal Capacity (Revised 2005, 2006)	12/05/02 09/07/06	<p>Provides for:</p> <ul style="list-style-type: none"> <li>non-transferable interim set asides of canal capacity for wheeling non-project water</li> <li>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)</li> <li>CAP acquiring and allocating new supplies to be delivered through the excess canal capacity</li> <li>reserving decisions about the use of excess canal capacity over and above that needed to satisfy interim set asides</li> </ul>
Energy Risk Management Policy	10/07/04 02/05/15	<p>Provides for:</p> <ul style="list-style-type: none"> <li>framework for identifying, assessing and managing energy-related risks</li> <li>alignment of energy trading and marketing activities with Board objectives</li> <li>process and internal controls to manage energy risk exposure</li> <li>standardized methods for measuring risks</li> <li>risk limits within which management is authorized to act</li> <li>periodic reporting to the Board</li> </ul>
Underground Storage Facility Capacity Priority Policy	05/02/13	<p>Provides for:</p> <ul style="list-style-type: none"> <li>methodology for scheduling and if necessary, prioritizing recharge capacity at underground storage facilities owned by CAWCD</li> </ul>

Policy Name	Board Approval	Synopsis
<b>Financial</b>		
CAP Rate Setting Policy	11/06/97 05/06/10	Establishes strategy, philosophy and process regarding goals, cost measurement, charges for subcontract water delivery, capital and excess water, and forward announcement of prices, pools and price stability  Provides for biennial rate-setting, in accordance with the biennial budget process
Approved Water Rate Schedule	June of Even Numbered Years	Establishes firm delivery rates for the following two years and advisory rates for the subsequent four years
CAGR Annual Membership Dues	04/07/11	Provides methodology and process for establishing annual membership dues for CAGR Member Lands (ML) and Member Service Areas (MSA)
CAGR Assessment Rate Setting Policy	04/05/01 05/06/10	Establishes purpose, process and methodology for computing components of CAGR assessment rates
CAGR Enrollment Fee and Activation Fee Policy	05/06/04 05/01/08	Provides mechanism to collect fees from Member Lands and Member Service Areas to be used to acquire water rights and develop infrastructure necessary for the CAGR.
General Fund Discretionary Reserve Strategy	03/06/03	Provides for CAP to implement a reserve policy that meets a new reserve target that will trend General Fund discretionary reserves down to between \$160 and \$165 million over the next several years. The reserves will be segregated into the following categories: Restricted (Master Contract Reserves), designated (Capital Replacement and Operating Reserves), and unrestricted (Working Capital and Insurance Reserves).
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
<b>Administration &amp; Human Resources</b>		
Human Resources & Management Practices	09/05/02	Provides for development of policies, programs and procedures in the areas of Administration, Compensation and Benefits, Employment, and Environment, Health, Safety and Security
Inspection Standards and Retention Requirements for Water Provider Records Relating to CAGR Annual Reports	03/02/06	Provides for: <ul style="list-style-type: none"> <li>inspection procedures to be followed by CAP when inspecting records of CAGR water providers</li> <li>record retention requirements for CAGR water providers</li> </ul>

Policy Name	Board Approval	Synopsis
<b>Use Of Colorado River Water</b>		
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"> <li>• direct use or storage of CAP water</li> <li>• water users to build and operate underground recharge projects</li> <li>• CAP to use CAP funds to build and operate underground recharge projects for users on a reimbursable basis</li> <li>• CAP to build and operate State Demonstration Projects for use by CAGRDR, water user entities and AWBA</li> </ul>
<b>CAP Water Use</b>		
Refinancing of 9(d) Debt  [Discussion Paper]	05/18/00	Requires: <ul style="list-style-type: none"> <li>• CAP to provide state parties' share of 9(d) debt for non-Indian agriculture (NIA) distribution systems</li> <li>• future subcontractors of NIA priority water to pay CAP proportionate amount with interest</li> <li>• CAGRDR eligibility for relinquished NIA water</li> </ul>
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"> <li>• high priority pools of excess water for NIA use through 2030</li> <li>• charges to be equal to Pumping Energy Rate charged to long-term subcontractors</li> <li>• monthly capacity rights equal to long-term subcontractors' rights</li> <li>• program for allocating NIA pool to be determined (12/5/2002 supplemental policy)</li> </ul>
Supplemental Policy for Marketing Excess Water for NIA Use —2004 through 2030  [Background Paper]	12/05/02	Promotes use of excess CAP water by non-Indian agriculture (NIA) Provides: <ul style="list-style-type: none"> <li>• allocation of NIA pool</li> <li>• eligibility requirements for participation as GSF</li> <li>• guidelines for incentive recharge water availability and priority</li> </ul>
Policy Regarding the Dedication of CAP's Existing Underground Storage Credits to CAGRDR for Use in Establishing the Replenishment Reserve	10/06/05	Provides for: <ul style="list-style-type: none"> <li>• dedication of long-term stored water credits for use by CAGRDR in establishing a replenishment reserve</li> <li>• payment by CAGRDR to CAP for credits in the year in which credits are used</li> </ul>

# GENERAL MANAGER & SENIOR MANAGEMENT

Policy Name	Policy Approved	Synopsis
Administration		
Purchasing	03/02/00 01/07/13	Provides for: <ul style="list-style-type: none"> <li>maintaining and administering a procurement program to acquire goods and services</li> <li>achieving balance between minimizing the cost for goods and services and striving for reasonable response and flexibility</li> <li>specifying the approval authority of staff positions and the GM</li> </ul>
Fleet Vehicles	01/05/01 01/01/07	Provides for: <ul style="list-style-type: none"> <li>management and control of the acquisition, delivery, assignment, pooling, replacement, disposal and maintenance of fleet vehicles</li> <li>control of vehicle administration, costs and integration of fleet vehicles into company operations</li> </ul>
Purchasing and Fleet Credit Card Program	10/06/03 03/01/08	Provides: <ul style="list-style-type: none"> <li>guidelines and establishes specific limitations for the use of purchasing and fleet credit cards by employees as part of normal operations</li> </ul>
Project Approval and Implementation	04/11/01 04/09/08	Provides for: <ul style="list-style-type: none"> <li>structure to evaluate, prioritize and oversee capital projects</li> <li>facilitation of planning, approval, implementation and completion of capital projects</li> <li>communication method among project managers and management</li> </ul>
Travel	06/04/01 07/15/13	Provides for: <ul style="list-style-type: none"> <li>prudent expenditure of funds budgeted for travel</li> <li>proper authorization and recording of travel-related expenses</li> <li>reimbursement of authorized business-related expenses incurred while on travel status</li> </ul>
General Signature Authority	1/17/11 4/11/11	Provides: <ul style="list-style-type: none"> <li>standard guidance and reference point regarding signing authorization</li> </ul>
Property	06/15/01 08/28/14	Provides for: <ul style="list-style-type: none"> <li>physical tracking and accounting of the acquisition, assignment, transfer, capitalization, depreciation and disposal of property</li> <li>safeguarding against loss, theft or misuse</li> </ul>

Policy Name	Policy Approved	Synopsis
Records and Information Management	05/12/00 08/31/10	Provides for: <ul style="list-style-type: none"> <li>management of CAP records, including all information, paper and electronic data</li> <li>use of a Uniform File Coding System, retention system and disposition/destruction schedule</li> </ul>
Risk Management	11/01/04 10/16/08	Assigns: <ul style="list-style-type: none"> <li>responsibility for managing risk and protecting CAP from financial harm</li> </ul>
Business Meals and Catering	05/20/02 03/01/08	Provides: <ul style="list-style-type: none"> <li>guidelines and sets limits for business meals and catering required for business meetings</li> </ul>
Extraordinary Event	05/18/09	Establishes: <ul style="list-style-type: none"> <li>special operating procedures that may be implemented by the GM as a result of an extraordinary, emergency event</li> </ul>
Media Relations	04/18/11	Identifies: <ul style="list-style-type: none"> <li>CAP's Communications and Public Affairs Group as the principal point of contact for all members of the media</li> </ul>
Social Media Use	04/18/11	Provides: <ul style="list-style-type: none"> <li>protocol and procedures for the use of social media to promote and publicize CAP</li> <li>prohibits postings and comments that violate CAP policies, are offensive to others or are discriminatory</li> </ul>
Compensation and Benefits		
Paid Leave	09/20/90 09/24/13	Provides for: <ul style="list-style-type: none"> <li>paid time off for vacations based on years of service and hours worked</li> <li>paid time off for holidays and personal time based on hours worked</li> <li>paid time off for specific absences (e.g., jury duty, court summons, marriage, funeral of co-worker, death of family member)</li> <li>income protection when employees cannot work due to their own or a family member's illness or injury</li> </ul>
Uniformed Service Absence	09/20/90 05/12/06	Provides for: <ul style="list-style-type: none"> <li>income protection when on short-term and long-term tours of duty</li> <li>leave of absence when on voluntary and involuntary active duty, training for active duty, and full-time National Guard duty</li> <li>reinstatement or reemployment opportunities upon honorable discharge</li> </ul>
Employee Recognition Programs	03/01/08 07/22/13	Provides for: <ul style="list-style-type: none"> <li>guidelines and establishes a process to promote and recognize exceptional employee effort that provides immediate and visible recognition for employee contributions</li> </ul>

Policy Name	Policy Approved	Synopsis
Overtime	09/20/90 12/10/07	Provides for: <ul style="list-style-type: none"> <li>scheduling of overtime hours</li> <li>compensation for overtime hours worked in accordance with Fair Labor Standards Act</li> </ul>
Victim's Leave Act	01/14/04 04/29/09	Provides for: <ul style="list-style-type: none"> <li>time off to attend juvenile and adult criminal court proceedings associated with being a crime victim</li> </ul>
Employee Assistance Program	11/01/04	Provides for: <ul style="list-style-type: none"> <li>confidential and voluntary assistance to employees and family members</li> <li>opportunity to find solutions to personal problems before such problems interfere with work performance</li> </ul>
Pay Administration	09/20/90 02/28/11	Provides for: <ul style="list-style-type: none"> <li>pay evaluation and administration program that enables CAP to attract and retain a qualified workforce</li> <li>maintaining internal equity through defined compensable factors</li> <li>maintaining external equity through pay practices and pay ranges</li> <li>consideration to the external labor market</li> <li>compensation flexibility to address changing business needs and economic conditions</li> <li>rewarding employees based on performance achievement</li> </ul>
Life Insurance Benefits	09/20/90 08/21/12	Provides for: <ul style="list-style-type: none"> <li>employer paid group term life insurance</li> <li>employer paid accidental death and dismemberment insurance</li> </ul>
Health Benefits	09/20/90 11/29/12	Provides for: <ul style="list-style-type: none"> <li>making group medical and dental health plans available to employees and eligible dependents with cost sharing by the employee and employer</li> </ul>
Tuition Reimbursement	12/03/98 08/01/13	Provides for: <ul style="list-style-type: none"> <li>job related educational assistance upon successful completion of courses taken at colleges, universities and trade schools</li> </ul>
Family Medical Leave Act (FMLA)	12/01/97 08/26/13	Provides for: <ul style="list-style-type: none"> <li>compliance with FMLA</li> <li>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</li> </ul>
Americans with Disabilities Act (ADA)	10/17/11	Provides for: <ul style="list-style-type: none"> <li>equal opportunity to all qualified individuals with disabilities</li> <li>compliance with legal and regulatory requirements to ensure full accessibility to all aspects of employment</li> <li>reasonable accommodations for applicants and employees with disabilities</li> </ul>
Certifications and Memberships	05/01/02 11/01/04	Assigns: <ul style="list-style-type: none"> <li>financial assistance for job-related certifications, certification activities and professional or technical memberships</li> </ul>

Policy Name	Policy Approved	Synopsis
Employment		
Recruitment and Selection	12/02/99 11/19/12	Provides: <ul style="list-style-type: none"> <li>• process for recruiting and selecting the candidate with the greatest chance of success to fill job vacancies</li> </ul>
Relocation Assistance Program	01/14/04 10/04/11	Provides for: <ul style="list-style-type: none"> <li>• reimbursement of covered expenses associated with relocating a household for prospective and current employees</li> </ul>
Temporary Work	11/01/04	Provides for: <ul style="list-style-type: none"> <li>• employment of temporary employees and independent contractors for a specified period of time for a specified purpose</li> </ul>
Corrective Action	12/03/98 10/04/10	Provides for: <ul style="list-style-type: none"> <li>• coaching and counseling of employees based on documented or observed facts in response to unsatisfactory employee performance or conduct</li> <li>• progressive discipline and termination for violations of work rules or for unsatisfactory performance</li> </ul>
CAP Resolve	08/01/96 11/01/04	Provides for: <ul style="list-style-type: none"> <li>• multiple, progressive steps for resolving workplace issues in a user-friendly and timely manner</li> <li>• legitimate alternatives to litigation</li> </ul>
Vehicle Use	09/20/90 09/13/13	Provides for: <ul style="list-style-type: none"> <li>• employees who are required to drive during the course of employment to have a valid driver's license and maintain a good driving record</li> </ul>
Ethical Business Conduct	02/04/99 09/27/06	Provides for: <ul style="list-style-type: none"> <li>• 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</li> </ul>
Nepotism	12/01/97 08/28/13	Provides for: <ul style="list-style-type: none"> <li>• hiring family members of CAP employees is not permitted</li> <li>• restricted work relationships of grandfathered family members</li> </ul>
Discrimination and Harassment-Free Workplace	12/03/98 06/09/08	Provides for: <ul style="list-style-type: none"> <li>• treating individuals with dignity and respect equal employment opportunities</li> <li>• relationships among employees to be businesslike and free of bias, prejudice and harassment</li> <li>• non-discriminatory practices, including a policy against harassment</li> <li>• employees to report perceived incidents of discrimination or harassment</li> </ul>

Policy Name	Policy Approved	Synopsis
Apprenticeship Program	06/26/98 01/24/12	Provides for: <ul style="list-style-type: none"> <li>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</li> </ul>
Work Schedules	07/22/98 06/05/11	Provides for: <ul style="list-style-type: none"> <li>various work schedules that meet the needs of the company, customers and employees</li> </ul>
Attendance	03/30/98 11/01/04	Clarifies: <ul style="list-style-type: none"> <li>expectations regarding attendance, punctuality and reliability</li> </ul>
Personal Appearance	01/12/05	Clarifies: <ul style="list-style-type: none"> <li>expectations regarding personal appearance, personal hygiene and appropriate attire</li> </ul>
Travel for Training	07/15/02 07/07/14	Provides for: <ul style="list-style-type: none"> <li>flexible scheduling, compensation and other employment conditions while on travel status associated with training</li> </ul>
Portal to Portal	03/30/98 11/01/04	Provides: <ul style="list-style-type: none"> <li>expectations regarding travel to and from temporary living accommodations while on travel status</li> </ul>
Telecommunications	06/04/10 01/01/12	Provides for: <ul style="list-style-type: none"> <li>management and control of company telephones, cellular phones and pagers</li> </ul>
Email	11/14/02 08/31/10	Provides: <ul style="list-style-type: none"> <li>criteria and parameters for the proper use, preservation, disclosure and disposition of electronic mail generated or received on company computers</li> </ul>
Diversity and Inclusion	12/13/10	Provides for: <ul style="list-style-type: none"> <li>CAP's intent to foster an atmosphere of acceptance and support for employees of diverse backgrounds</li> </ul>
Vehicle Accident Review	06/27/11	Provides for: <ul style="list-style-type: none"> <li>improvement in overall safety of operations</li> <li>establishing fair and impartial review system for all accidents</li> <li>establishing accident cause, whether accident was preventable, uniformity of accountability and make recommendations for corrective action</li> </ul>

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"> <li>income protection for employees disabled as a result of work-related illnesses or injuries</li> <li>opportunities to return to work on light duty or restricted duty</li> </ul>
Drug & Alcohol Abuse	12/03/98 07/15/13	Provides for: <ul style="list-style-type: none"> <li>establishing and maintaining a workplace free from the effects of alcohol, misuse of legal drugs and the use, possession or distribution of drugs</li> <li>pre-employment drug testing</li> <li>reasonable suspicion testing</li> </ul>
Information Security	11/14/02 06/25/12	Provides for: <ul style="list-style-type: none"> <li>authorized use of computers, networks and other information system resources</li> <li>protecting the confidentiality, integrity and availability of information and information systems</li> <li>reporting information security violations and incidents</li> </ul>
Safety	12/03/98 10/04/10	Provides for: <ul style="list-style-type: none"> <li>maintaining a safe work environment</li> <li>reducing the number of incidents of injury, lost time associated with injuries and property damage accidents through the use of proper equipment, training &amp; education, accident investigation and consistent improvement</li> </ul>
Weapons Free Workplace	12/08/99	Provides for: <ul style="list-style-type: none"> <li>safe work environment</li> <li>prohibiting firearms, explosives or dangerous offensive weapons on company property or in company vehicles</li> </ul>
Environmental Compliance	10/09/03 02/28/11	Provides for: <ul style="list-style-type: none"> <li>compliance with all applicable environmental laws and regulations</li> <li>identification of policies, plans, guides, programs and permits governing CAP's compliance with laws and regulations</li> <li>employees to report violations and environmental contaminations</li> </ul>
Identification Badges	11/17/03 11/01/04	Provides for: <ul style="list-style-type: none"> <li>employees, contractors and visitors to wear identification badges at all times while at Headquarters</li> </ul>
Return to Work Program	12/01/97 06/13/11	Provides for: <ul style="list-style-type: none"> <li>reasonable accommodation to employees during medical recovery from a work or non-work related injury or illness</li> </ul>

Policy Name	Policy Approved	Synopsis
Violence Free Workplace	12/01/97 04/11/11	Provides for: <ul style="list-style-type: none"> <li>• safe work environment</li> <li>• zero tolerance of threats or acts of violence, acts of intimidation or coercion</li> <li>• employees to report incidents of violence and cooperate in investigations</li> </ul>
Smoke Free Workplace	03/30/98 10/06/06	Provides for: <ul style="list-style-type: none"> <li>• restrictions on smoking in work areas</li> </ul>
Safety Incident Review	03/12/03 10/04/10	Provides: <ul style="list-style-type: none"> <li>• 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</li> <li>• opportunities for coaching, action planning and corrective action</li> </ul>
Hazardous Substance Control	11/01/10	Provides: <ul style="list-style-type: none"> <li>• guidelines for the purchase, storage, distribution, disposal and reporting of hazardous substances used at CAP</li> </ul>
Remote Access	10/06/06 04/18/11	Provides: <ul style="list-style-type: none"> <li>• definition of security requirements for connecting to CAP's network from a non-CAP network</li> </ul>

# FINANCE & ACCOUNTING

## 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, CAGR 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"><li>• Non-capitalized Expenditures:<ul style="list-style-type: none"><li>◊ In general, all expenditures which do not add significantly to the value or utility of an asset should be expensed in the current period and included in the Operating Budget; such expenditures include, but are not limited to, normal repairs, spare parts, routine maintenance, relocation and storage</li></ul></li><li>• Capitalized Expenditures:<ul style="list-style-type: none"><li>◊ Movable property: should be capitalized if the property has: (a) a useful life of 3 years or more; and (b) an acquisition cost of \$5,000 or more</li><li>◊ 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</li><li>◊ Buildings and other structures: new structures with a cost of \$5,000 or more shall be capitalized</li><li>◊ Installed plant machinery &amp; equipment: installed units of machinery and equipment with a cost of \$5,000 or more shall be capitalized</li><li>◊ Costs subsequent to acquisition:<ul style="list-style-type: none"><li>◆ additions costing \$5,000 or more that extend, enlarge or expand an existing asset shall be capitalized</li><li>◆ replacements and betterments that are not recurring in nature, represent relatively large expenditures, and increase the use value and extend the useful life of the asset, shall be capitalized</li></ul></li></ul></li></ul>
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.

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### Financial Reporting

It is the practice of CAP to:

- prepare and issue financial reports on a monthly, quarterly and annual basis; these reports are prepared at a hierarchical level, from the lowest (cost center) to the highest (consolidated financial statements)
  - quarterly 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
  - quarterly require Finance to prepare and present a Quarterly Financial Review for the SMT and the Finance and Audit Committee of the Board
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## Profile:

# Maricopa County, Arizona

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 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; over 50 institutions of higher learning, including Arizona State University and the Thunderbird School of Global Management; various cultural attractions; major league professional basketball (Phoenix Suns and Phoenix Mercury), football (Arizona Cardinals), hockey (Arizona Coyotes) and baseball's 2001 World Champion Arizona Diamondbacks; and Phoenix Sky Harbor International Airport, the fifteenth busiest in the world with over 1,200 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 publicly. Almost 5 percent is Indian reservation land. Parts of 11 jurisdictions in western Maricopa County are designated Enterprise Zones as well as central and southern areas in the City of Phoenix. The cities of Tempe, Chandler and Mesa each have an Enterprise Zone in the central part of the city.



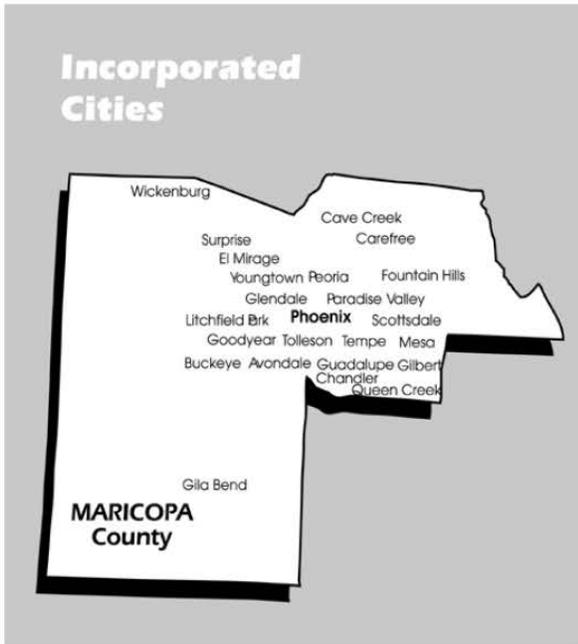
333 N. Central Avenue, Suite 1900; Phoenix, Arizona 85004  
Phone: (602) 845-1200; Website: [www.azcommerce.com/](http://www.azcommerce.com/)

Note: This information is as current as the date of this publication and was taken from reliable sources; however, we do not guarantee its completeness nor does the Arizona Commerce Authority endorse any particular individual. This information is provided as a service only.

## Maricopa County At-A-Glance

<b>County Seat:</b>	Phoenix
<b>2012 Population:</b>	3,884,705
<b>2012 Labor Force:</b>	1,896,987
<b>Unemployment Rate:</b>	7.1%
<b>Major Industries:</b>	Services; Retail Trade; Manufacturing, Information
<b>Best Paying Industries:</b>	Mining; Finance, Insurance & Real Estate; Public Administration

Sources: Population Estimates July 2012, Arizona Department of Administration; Labor Force: Local Area Unemployment Statistics 2012, Arizona Department of Administration.



## Population

	1990	2000	2012
Arizona	3,665,228	5,130,632	6,498,569
Maricopa County	2,122,101	3,072,149	3,884,705

### Major Cities/Communities

	1990	2000	2012
Avondale	16,169	35,883	76,870
Buckeye	4,436	6,537	54,102
Carefree	1,666	2,927	3,388
Cave Creek	2,925	3,728	5,110
Chandler	90,533	176,581	241,214
El Mirage	5,001	7,609	32,067
Fountain Hills	10,030	20,235	22,695
Gila Bend	1,747	1,980	1,932
Gilbert	29,188	109,697	219,666
Glendale	148,134	218,812	229,008
Goodyear	6,258	18,911	69,018
Guadalupe	5,458	5,228	5,943
Litchfield Park	3,303	3,810	5,621
Mesa	288,091	396,375	444,856
Paradise Valley	11,773	13,644	13,106
Peoria	50,168	108,364	157,653
Phoenix	983,403	1,321,045	1,464,727
Queen Creek [1]	2,667	4,316	27,249
Scottsdale	130,069	202,705	219,713
Sun City	38,126	38,309	N/A
Sun City West	15,997	26,344	N/A
Surprise	7,122	30,848	119,530
Tempe	141,865	158,625	164,659
Tolleson	4,434	4,974	6,579
Wickenburg	4,515	5,082	6,458
Youngtown	2,542	3,010	6,188

Source: U.S. Census Bureau, Arizona Department of Administration, July 2012 Population Estimates; does not include unincorporated areas (total population: 287,057)

N/A - Not available

[1] Combined Maricopa and Pinal portions

### Age Distribution

	% of total
0-14	22.1%
15-24	14.3%
25-44	27.9%
45-64	23.8%
65+	12.1%

Source: U.S. Census Bureau, American Community Survey 5-Year (2007-2011)

### Population Composition\*

Race	% of total
White	73.0%
African American	5.0%
Native American	2.1%
Asian or Pacific Islands	3.5%
Other	16.4%
<b>Hispanic Heritage*</b>	<b>29.6%</b>

Source: U.S. Census Bureau, American Community Survey 5-Year (2007-2011)

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# Labor Force

## 2012 Civilian Labor Force

	Labor Force	Unemployment Rate
Arizona	3,030,238	8.3%
Maricopa County	1,896,987	7.1%
<i>Major Cities/Communities</i>		
Avondale	36,590	8.5%
Buckeye	21,344	9.4%
Carefree	1,614	2.5%
Cave Creek	2,460	3.3%
Chandler	132,522	5.9%
El Mirage	14,328	8.6%
Fountain Hills	11,682	5.6%
Gila Bend	1,026	11.9%
Gilbert	114,341	5.3%
Glendale	116,644	7.5%
Goodyear	28,901	8.1%
Guadalupe	2,724	12.7%
Litchfield Park	2,162	6.6%
Mesa	222,505	7.0%
Paradise Valley	7,354	4.3%
Peoria	76,347	6.7%
Phoenix	727,540	7.6%
Queen Creek	13,174	5.7%
Scottsdale	119,458	5.7%
Sun City CDP	7,262	8.4%
Sun City West CDP	3,015	8.8%
Surprise	43,751	8.5%
Tempe	99,227	6.2%
Tolleson	2,879	7.1%
Wickenburg	2,510	3.3%
Youngtown	1,183	12.1%

Source: Arizona Department of Administration, Local Area Unemployment Statistics (LAUS) 2012

## 2012 Employment by Sector

	In Thousands
Mining & Construction	91.8
Education & Health Services	255.1
Financial Activities	147.6
Government	230.9
Information	29.5
Leisure & Hospitality	183.0
Manufacturing	117.0
Professional & Business Services	283.7
Trade, Transportation & Utilities	356.8

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2012

## 2012 Total All Occupations

Employment	1,674,540
Hourly Compensation	
Median Wage	\$16.87
Average Wage	\$21.80
Entry Wage	\$8.76
Experienced	\$26.61

Source: Arizona Department of Administration, May 2012 OES

## 2012 Employment by Occupation – Average Wages

	Employment	Avg. Wages
Office & Administrative	307,200	\$16.65
Sales & Related	201,420	\$18.10
Food Preparation & Serving	156,240	\$10.56
Construction & Extraction	72,910	\$19.28
Transportation & Material Moving	106,100	\$17.41
Production	78,900	\$15.97
Education, Training & Library	95,100	\$22.12
Management	100,780	\$48.06

Source: Arizona Department of Administration; May 2012 OES; Mean wage per hour

## Major Employers

Employer	Employment Type
Albertsons-Osco	Supermarket/Drugstore
American Express	Travel-Related & Financial Services
U.S. Airways	Major Airline
Apollo Group Inc.	Education
Arizona State University	University
Bank of America	Financial Services
Banner Health	Health-Care Services
The Boeing Co.	Aircraft Manufacturing
City of Phoenix	Government
Freeport McMoRan	Mining, Copper & Gold
Honeywell	Aviation & Control Technology
Intel Corp.	Semiconductor Manufacturing
JP Morgan Chase	Financial Services
Luke Air Force Base	F35 Pilot/Crew Training/Military
Maricopa County	Government
Mesa Public Schools	Education
Pinnacle West Capital Corp.	Utility Holding company
Qwest Communications Inc.	Telecommunications
Safeway	Supermarket Retailing
State of Arizona	Government
Target Corporation	Retail
U.S. Postal Service	Mail Delivery
Walgreens Co.	Chain Drug Store
Wells Fargo Co.	Financial Services



## Electric Service

Major Supplier:	
APS	(602) 250-1000
Salt River Project	(602) 236-8888

## Natural Gas Service

Major Supplier:	
Southwest Gas Corporation	(877) 860-6020

## Water and Sewer

For information, see specific community profile or contact the local chamber of commerce directly.

## Telephone

Major Suppliers:	
Cox Communications	(623) 594-1000
Century Link (residential)	(800) 224-1111
(business)	(800) 603-6000

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## Medical

### Major Hospitals

Arizona Heart Institute, Phoenix	(602) 266-2200
Arrowhead Community Hospital and Medical Center, Glendale	(623) 561-1000
Barrow Neurological Institute	(602) 406-3000
Boswell Memorial Hospital, Sun City	(623) 977-7211
Carl Hayden VA Medical Center, Phoenix	(602) 277-5551
Chandler Regional Hospital, Chandler	(480) 963-4561
Desert Samaritan, Mesa	(480) 835-3000
Good Samaritan Regional Medical Center Phoenix	(602) 239-2000
John C. Lincoln—Deer Valley, Phoenix	(602) 879-6100
John C. Lincoln, Phoenix	(602) 943-2381
Mayo Clinic, Scottsdale	(480) 301-8000
Mesa General Hospital	(480) 969-9111
Banner Health Hospital, Mesa	(480) 834-1211
Paradise Valley Hospital, Phoenix	(602) 923-5000
Phoenix Baptist Hospital, Phoenix	(602) 249-0212
Phoenix Children's Hospital, Phoenix	(602) 933-1000
Phoenix Memorial Hospital, Phoenix	(602) 258-5111
St. Joseph's Hospital, Phoenix	(602) 406-3000
Scottsdale Health Care, Osborn	(480) 882-4000
Tempe St. Luke's, Tempe	(877) 351-9355
Thunderbird Samaritan Medical Center Glendale	(602) 588-5555
Valley Lutheran Hospital, Mesa	(480) 981-2000
Webb Memorial Hospital, Sun City West	(623) 214-4000
Wickenburg Community Hospital, Wickenburg	(928) 684-5421



## Education

### Major Colleges/Universities

Thunderbird School of Global Management, Glendale	(602) 978-7000
Arizona State University, Tempe	(480) 965-9011
Arizona State University East, Mesa	(480) 727-1585
Arizona State University West, Phoenix	(602) 543-5500
Chandler-Gilbert Community College, Chandler	(480) 732-7000
Devry Institute of Technology	(602) 749-4500
Estrella Mountain Community College, Avondale	(623) 935-8000
Frank Lloyd Wright School of Architecture, Scottsdale	(480) 627-5345
Gateway Community College, Phoenix	(602) 286-8000
Glendale Community College, Glendale	(623) 286-8000
Grand Canyon University, Phoenix	(602) 639-7500
ITT Technical Institute, Phoenix	(602) 474-7900
Mesa Community College, Mesa	(480) 461-7000
Midwestern University, Glendale	(623) 537-6000
Ottawa University, Phoenix	(602) 392-0002
Paradise Valley Community College, Phoenix	(602) 787-6500
Phoenix College	(602) 285-7500
Rio Salado Community College, Tempe	(480) 517-8000
Scottsdale Community College, Scottsdale	(480) 423-6000
South Mountain Community College, Phoenix	(602) 243-8000
University of Phoenix, Phoenix	(480) 832-4867
Western International University, Phoenix	(602) 948-4636



## Distance to Major Cities



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## Highways

Interstate 8, I-10, I-17, U.S. 60, state Highway 51, state Highway 74, state Highway 85, state Highway 87, state Highway 88, state Highway 101, state Highway 143, state Highway 153, state Highway 202, state Highway 238, state Highway 303, state Highway 347

## Bus Lines

Greyhound Bus Lines, Phoenix Transit, Valley Metro, Tempe Orbit

## Rail Service

AMTRAK	(800) 872-7245
Arizona & California Rail Co.	(877) 361-6487
Burlington Northern Santa Fe Railway	(800) 795-2673
Union Pacific Railroad	(888) 870-8777

## Trucking Service

Arkansas Best Freight Systems (ABF) Freight System Inc., Duncan & Sons Lines Inc., Englund Equipment Co., Hour Express Inc., Knight Transportation, MST Trucking Inc., NW Transport Services, Inc., Randy Bridgewater Inc., Rick's Pumping Service, Roadway Express, Southwest Express, Southwest Transportation Inc., Southwest Trucking & Grading, Sun Valley Express, Swift Transportation Co., Viking Freight Inc., West End Trucking

## Air Service

### Major Airport

<b>Airport Name:</b> Buckeye Municipal	(623) 349-6650
Functional Class: Community Service	
Elevation: 1,024'	
Ownership: Public	
Use: Military/Public	
Nav-aids: None	
Runway: 17/35	Length: 4,300' Width: 75'
Surface: Asphalt	
<b>Airport Name:</b> Chandler Municipal	(480) 782-3540
Functional Class: Business Service	
Elevation: 1,236'	
Ownership: City of Chandler	
Use: Public/Corporate	
Nav-aids: Non-Directional Beacon	
Runway: 4L/22R	Length: 4,395' Width: 75'
4R/22L	Length: 4,850' Width: 75'
Surface: Asphalt	
<b>Airport Name:</b> Gila Bend Municipal	(928) 683-2733
Functional Class: Basic Service	
Elevation: 778'	
Ownership: Public	
Use: Public	
Nav-aids: VORTAC	
Runway: 04/22	Length: 5,200' Width: 75'
Surface: Asphalt	
<b>Airport Name:</b> Glendale Municipal	(623) 930-2188
Functional Class: Basic Service	
Elevation: 1,086'	
Use: Public	
Nav-aids: None	
Runway: 01/19	Length: 5,350' Width: 75'
Surface: Asphalt	
<b>Airport Name:</b> Mesa-Falcon Field	(480) 644-2450
Functional Class: Business Service	
Elevation: 1,391'	
Use: Public	
Nav-aids: NDB/GPS	
Runway: 4R/22L	Length: 3,800' Width: 75'
Surface: Asphalt	
Runway: 4L22L	Length: 5,100'
Surface: Asphalt	

<b>Airport Name:</b> Phoenix-Deer Valley Municipal	(623) 869-0975
Functional Class: Business Service	
Elevation: 1,476'	
Use: Public	
Nav-aids: None	
Runway: 7L/25R	Length: 4,500' Width: 75'
Surface: Asphalt	
Runway: 7R/25L	Length: 8,200' Width: 100'
Surface: Asphalt	

<b>Airport Name:</b> Phoenix-Goodyear	(623) 932-1200
Functional Class: Business Service	
Elevation: 968'	
Use: Public	
Nav-aids: None	
Runway: 03/21	Length: 8,500' Width: 150'
Surface: Asphalt, concrete	

<b>Airport Name:</b> Phoenix-Sky Harbor Int'l	(602) 273-3300
Functional Class: Commercial Service	
Elevation: 1,132'	
Use: Public/Commercial/Military	
Nav-aids: ILS	
Runway: 8L26R	Length: 11,001' Width: 150'
Surface: Asphalt	
Runway: 8R/26L	Length: 10,300' Width: 150'
Surface: Asphalt	

<b>Airport Name:</b> Pleasant Valley	(602) 439-3621
Location: Peoria	
Functional Class: Basic Service	
Elevation: 1,580'	
Use: Public	
Nav-aids: None	
Runway: 05/23	Length: 4,050'
Surface: Dirt	
Runway: 14/32	Length: 2,150' Width: 80'
Surface: Dirt	

<b>Airport Name:</b> Scottsdale Airport	(480) 312-2321
Functional Class: Commercial Service	
Elevation: 1,509'	
Ownership: Public	
Use: Public/Commercial	
Nav-aids: NDB	
Runway: 03/21	Length: 8,251' Width: 75'
Surface: Asphalt	

<b>Airport Name:</b> Steller Airpark	(480) 295-2683
Functional Class: Basic Service	
Elevation: 1,175'	
Ownership: Private	
Use: Public	
Nav-aids: None	
Runway: 17/35	Length: 4,005' Width: 55'
Surface: Asphalt	

<b>Airport Name:</b> Wickenburg	(928) 684-0754
Functional Class: Community Service	
Elevation: 2,423'	
Ownership: Public	
Use: Public	
Nav-aids: None	
Runway: 05/23	Length: 5,050' Width: 60'
Surface: Asphalt	

<b>Airport Name:</b> Mesa/ Gateway	(480) 988-7600
Location: Mesa	
Functional Class: Reliever	
Elevation: 1,380'	
Ownership: Public	
Use: Business/Commercial/Military/Cargo/General Purpose Foreign Trade Zone #221	
Nav-aids: VORTAC 113.3 CH 80; ILS RY 30C 110.30	
Runway: 12R-30L	Length: 10,400' Width: 150'
Runway: 12C-30C	Length: 10,200' Width: 150'
Runway: 12L-30R	Length: 9,300' Width: 150'
Surface: Concrete-Asphalt; Concrete	

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## Industrial Development Authorities

**Industrial Development Authority of Maricopa County**  
 301 West Jefferson Street, 10th Floor  
 Phoenix, Arizona 85003  
 Phone: (602) 506-1888  
 Fax: (602) 257-9582  
 Website: <http://www.mcida.com/>

**Industrial Development Authority of Avondale**  
 c/o Mr. Kevin Artz  
 P.O. Box 3  
 Avondale, Arizona, 85323  
 Website: <http://www.avondale.org/index.aspx?NID=2354>

**Industrial Development Authority of the City of Chandler**  
 Dawn Lang  
 P.O. Box 4008, MS 416  
 Chandler, AZ 85244  
 Phone: 480-782-2255  
 Email: [dawn.lang@chandleraz.gov](mailto:dawn.lang@chandleraz.gov)  
 Website: [www.chandleraz.gov/default.aspx?pageid=633](http://www.chandleraz.gov/default.aspx?pageid=633)

**Industrial Development Authority of Mesa**  
 Chris Schneck  
 P.O. Box 1466  
 Mesa, AZ 85211  
 (480)644-2011  
 Website: [www.mesaaz.gov/government/advisory/IDA.aspx](http://www.mesaaz.gov/government/advisory/IDA.aspx)

**Phoenix Industrial Development Authority**  
 c/o Lydia Lee  
 251 West Washington Street, 9th Floor  
 Phoenix, AZ 85003  
 Phone: (602) 534-9655  
 Email: [lee@phoenixida.com](mailto:lee@phoenixida.com)  
 Website: <http://www.phoenixida.com/>

**Industrial Development Authority of the City of Scottsdale**  
 c/o Marc Grayson  
 3939 N. Drinkwater Blvd  
 Scottsdale, AZ 85251  
 Phone: (480) 312-3111  
 Fax: (480) 994-2672  
 Website: <http://www.scottsdaleaz.gov/ida>



## Taxes

Corporate income tax rate in the State of Arizona is 6.968 percent effective for taxable years beginning from and after December 31, 2000. In 2011, Arizona House Bill 2001, also known as the "Jobs Bill" passed and was signed into legislation by Governor Jan Brewer. As a result of this bill, Arizona's corporate income tax rate will be reduced from its current rate to 4.9% by 2017.

Source: Arizona Department of Revenue

### Property Tax

Community	Elem/High School	City/Fire	Countywide	Total
Avondale**	9.69	1.28	3.35	14.32
Chandler**	7.96	1.30	3.35	12.61
Fountain Hills*	6.29	0.33	3.35	9.97
Gila Bend	5.32	1.64	3.35	10.31
Gilbert*	8.97	1.25	3.35	13.57
Glendale	10.75	1.72	3.35	15.82
Goodyear*	7.17	2.08	3.35	12.60
Mesa*	7.55	0.00	3.35	10.90
Paradise Valley	9.98	0.00	3.35	13.33
Peoria**	9.49	1.63	3.35	14.47
Phoenix	11.76	1.82	3.35	16.93
Scottsdale*	5.44	1.19	3.35	9.98
Surprise	7.78	0.85	3.35	11.98
Tempe*	7.73	1.82	3.35	12.90
Wickenburg	6.00	0.71	3.35	10.06

Source: Arizona Department of Revenue 2013 (Rate is per \$100 of assessed value) \*School district participates in the East Valley Institute of Technology (EVIT). \*\*School district participates in the Western Maricopa Education Center (West-MEC).

### Sales Tax

The state imposes a 5.6% percent transaction privilege (sales) tax on most business activities, while Maricopa County has a .7% sales tax. Additional sales tax rates by city are as follows: Chandler & Gilbert 1.5%, Mesa 1.75%, Peoria, 1.8%, Paradise Valley 2.5%, Scottsdale 1.65%, Wickenburg 2.2%, Glendale 2.9%, Phoenix 2.0%, Tempe, 2.0%, Buckeye 3.0%, Goodyear 2.5%, Litchfield Park 2.8%, Queen Creek 2.25%, Tolleson 2.5%, Youngtown 3.0%, Surprise 2.2%, Avondale 2.5%, & Cave Creek 3.0%, Fountain Hills 2.6%, Carefree, El Mirage, Gila Bend 3.0%, & Guadalupe 4.0%. There are additional hotel/motel taxes in the following cities: Litchfield Park, Queen Creek & Surprise 1%; Avondale, El Mirage, Gila Bend, Tempe, Tolleson & Youngtown, 2%; Goodyear & Mesa, 2.5%; Chandler, 2.9%; Carefree, Fountain Hills, Gilbert, Glendale, Paradise Valley, Phoenix & Scottsdale, 3%; Peoria, 3.5%; Cave Creek & Guadalupe 4%.

Sources: Arizona Department of Revenue (July 2013)

### Payroll Tax

Payroll taxes in Arizona are computed based on federal filing by employers and employees. Generally, withholding for state payroll taxes is between 10 and 32 percent of federal withholding based on employees' income.

Source: Arizona Department of Revenue

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## For Further Information

City of Avondale Economic Development  
11465 Civic Center Dr  
Avondale, AZ 85323  
Phone: (623) 333-1400  
Website: <http://www.avondale.org/>

Buckeye Valley Chamber of Commerce  
508 E Monroe Ave  
Buckeye, AZ 85326  
Phone: (623) 386-2727  
Website: <http://www.buckeyevalleychamber.org/>

Carefree/Cave Creek Chamber of Commerce  
748 Easy St., Suite 2 & 4  
Carefree, AZ 85377  
Phone: (480) 488-3381  
Email: [chamber@carefreecavecreek.org](mailto:chamber@carefreecavecreek.org)  
Website: <http://carefreecavecreek.org/>

Chandler Chamber of Commerce  
25 S. Arizona Place  
Chandler, AZ 85225  
Phone: (480) 963-4571  
Website: <http://www.chandlerchamber.com/>

City of Chandler Economic Development Division  
215 E. Buffalo St.  
Chandler, AZ 85225  
Phone: (480) 782-3030  
Website: <http://www.chandleraz.gov/>

Fountain Hills Chamber of Commerce  
16837 E. Palisades Ave.  
Fountain Hills, AZ 85268  
Phone: (480) 837-1654  
Email: [frank@fhchamberofcommerce.org](mailto:frank@fhchamberofcommerce.org)  
Website: <http://www.fountainhillschamber.com>

Gila Bend Chamber of Commerce  
P.O. Box CC  
Gila Bend, AZ 85337  
Phone: (928) 420-1964  
E-mail: [info@gilabendazchamber.com](mailto:info@gilabendazchamber.com)  
Website: <http://www.gilabendazchamber.com>

Gilbert Chamber of Commerce  
119 N Gilbert Rd #101  
Gilbert, AZ 85234  
Phone: (480) 892-0056  
E-mail: [info@gilbertchamber.com](mailto:info@gilbertchamber.com)  
Website: <http://www.gilbertaz.gov>

Town of Gilbert Economic Development  
90 E. Civic Center Drive  
Gilbert, AZ 85296  
Phone: (480) 503-6010  
E-mail: [busdev@gilbertaz.gov](mailto:busdev@gilbertaz.gov)  
Website: <http://www.gilbertaz.gov/econdev/>

City of Glendale, Economic Development  
5850 W. Glendale Avenue, Suite 217  
Glendale, Arizona 85301  
Phone - (623) 930-2983  
E-mail: [Business@glendaleaz.com](mailto:Business@glendaleaz.com)  
Website: <http://www.glendaleaz.com>

Town of Guadalupe, Economic Development  
9241 S. Avenida Del Yaqui  
Guadalupe, AZ 85283  
Phone: (480) 505-5399  
E-mail: [gturrubiartes@guadalupeaz.org](mailto:gturrubiartes@guadalupeaz.org)

City of Mesa, Economic Development  
20 E. Main St., Ste 200  
Mesa, AZ 85211  
Phone: (480) 644-2398  
E-mail: [econdev.info@mesaaz.gov](mailto:econdev.info@mesaaz.gov)  
Website: <http://www.mesaaz.gov/economic/>

Mesa Chamber of Commerce  
120 North Center Street  
Mesa, AZ 85201  
Phone: (480) 969-1307  
E-mail: [info@mesachamber.org](mailto:info@mesachamber.org)  
Website: <http://www.mesachamberofcommerce.org/>

Surprise Regional Chamber of Commerce  
(El Mirage, Sun City, Sun City West, Surprise, Youngtown)  
16126 N. Civic Center Plaza  
Surprise, AZ 85374  
Phone: (623) 583-0692  
Website: <http://www.surpriseregionalchamber.com/>

North Phoenix Chamber of Commerce  
(Paradise Valley)  
14001 N. 7<sup>th</sup> Street, Suite 106  
Phoenix, AZ 85022  
Phone: (602) 482-3344  
Email: [info@northphoenixchamber.com](mailto:info@northphoenixchamber.com)  
Website: <http://www.northphoenixchamber.com/>

Peoria Chamber of Commerce  
16165 N. 83<sup>rd</sup> Ave., Suite 101  
Peoria, AZ 85382  
Phone: (623) 979-3601  
Website: <http://www.peoriachamber.com/>

Peoria Economic Development Group  
9875 N. 85th Avenue  
Peoria, Arizona 85345  
Phone: 623-773-7735  
E-mail: [peoriaED@peoriaaz.gov](mailto:peoriaED@peoriaaz.gov)  
Website: <http://www.peoriaed.com/>

City of Phoenix, Community and Economic Development  
200 W. Washington St., 20th Floor  
Phoenix, AZ 85003  
Phone: (602) 495-5252  
E-mail: [phx.business@phoenix.gov](mailto:phx.business@phoenix.gov)  
Website: <http://phoenix.gov/econdev/index.html>

Greater Phoenix Economic Council  
2 N. Central Ave., Ste 2500  
Phoenix, AZ 85004  
Phone: (602) 256-7700  
Website: <http://www.gpec.org/>

Greater Phoenix Chamber of Commerce  
201 N. Central Ave., Ste 2700  
Phoenix, AZ 85004  
Phone: (602) 495-2195  
Website: <http://www.phoenixchamber.com/>

Town of Queen Creek  
22350 S. Ellsworth  
Queen Creek, AZ 85242  
Phone: (480) 358-3000  
Website: <http://www.queencreek.org/>

City of Scottsdale, Economic Development Office  
7447 E. Indian School Rd., Ste 200  
Scottsdale, AZ 85251  
Phone: (480) 312-7801  
E-mail: [Business@Scottsdaleaz.gov](mailto:Business@Scottsdaleaz.gov)  
Website: <http://www.scottsdaleaz.gov/EV/EconomicDev>

Scottsdale Area Chamber of Commerce-Air Park Center  
8585 E. Hartford Dr., Suite 400  
Scottsdale, AZ 85255-5436  
Phone: (480) 945-8481  
Website: <http://www.scottsdalechamber.com/>

Southwest Valley Chamber of Commerce  
(Avondale, Goodyear, Litchfield Park, Tolleson)  
289 N. Litchfield Rd.  
Goodyear, AZ 85338  
Email: [info@southwestvalleychamber.org](mailto:info@southwestvalleychamber.org)  
Phone: (623) 932-2260  
Website: <http://www.southwestvalleychamber.org/>

Tempe Chamber of Commerce  
909 E. Apache Blvd  
Tempe, AZ 85285-8500  
Phone: (480) 967-7891  
Email: [info@tempechamber.org](mailto:info@tempechamber.org)  
Website: <http://tempechamber.org/>

City of Tempe, Economic Development Office  
31 East 5th Street  
Tempe, AZ 85281  
Phone: (480) 350-8028  
E-mail: [Shannon.selby@tempe.gov](mailto:Shannon.selby@tempe.gov)  
Website: <http://www.tempe.gov/index.aspx?page=989>

Wickenburg Chamber of Commerce  
216 N. Frontier St.  
Wickenburg, AZ 85390  
Phone: (928) 684-5479  
Email: [info@wickenburgchamber.com](mailto:info@wickenburgchamber.com)  
Website: <http://www.wickenburgchamber.com/>

County profiles are produced by the  
Arizona Commerce Authority



333 N. Central Ave. Suite 1900  
Phoenix, Arizona, 85004  
Phone: (602) 845-1200  
Website: [www.azcommerce.com](http://www.azcommerce.com)

## Profile:

# Pima County, Arizona

Pima County, the second largest of the four original counties of Arizona, 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 roaming bands of Apaches.

The Royal Presidio de San Agustín del Tucson was completed by 1781, and it remained the northern-most outpost of Mexico until the arrival of American soldiers in 1856. 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 of 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 42.1 percent of land located in Pima County. The state of Arizona owns 14.9 percent; the U.S. Forest Service and Bureau of Land Management, 12.1 percent; other public lands, 17.1 percent; and individual or corporate ownership, 13.8 percent. Pima County has an Enterprise Zone that includes all of South Tucson, central Tucson, portions of Marana, Sahuarita, parts of Pima County and parts of the Tohono O'Odham and Pasqua Yaqui Indian Reservations.



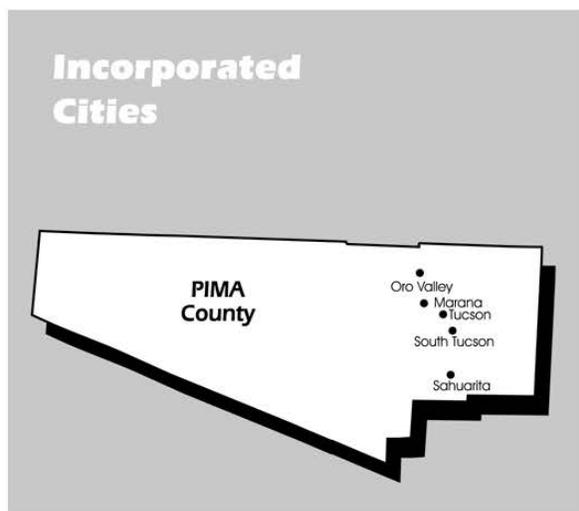
333 N. Central Ave. Suite 1900; Phoenix, Arizona 85004 (602) 845-1200  
[www.azcommerce.com](http://www.azcommerce.com)

Note: This information is as current as the date of this publication and was taken from reliable sources; however, we do not guarantee its completeness nor does the Arizona Commerce Authority endorse any particular individual. This information is provided as a service only.

## Pima County At-a-Glance

<b>County Seat:</b>	Tucson
<b>2012 Population:</b>	990,380
<b>2012 Labor Force:</b>	462,748
<b>Unemployment Rate:</b>	7.3%
<b>Major Industries:</b>	Aerospace; Bioindustry; Environmental Technology, Manufacturing, Optics, Plastics & Advanced Composite Materials, Software, Teleservices

Sources: Population Estimates July 2012, Population Statistics Unit, Arizona Department of Administration; January 2013 Local Area Unemployment Statistics, Arizona Department of Administration.



## Population

	1990	2000	2012
Arizona	3,665,228	5,130,632	6,498,569
Pima County	666,880	843,746	990,380
<b>Major Cities/Communities</b>			
Ajo	2,919	3,705	3,304
Catalina	4,864	7,025	7,569
Green Valley	20,644	17,283	21,391
Marana	2,187	13,556	36,957
Oro Valley	6,670	29,700	41,275
Pasqua Yaqui Reservation	2,412	3,315	N/A
Sahuarita	1,629	3,242	26,121
Sells/Tohono O'odham Reservation	2,750	2,799	N/A
South Tucson	5,093	5,490	5,675
Tucson	405,390	486,699	523,471

Source: U.S. Census Bureau, Arizona Department of Administration, July 2012 Population Estimates  
-N/A - Not available

### Age Distribution

	% of total
0-14	18.8%
15-24	14.8%
25-44	24.7%
45-64	25.9%
65+	15.9%

Source: U.S. Census Bureau, American Community Survey 5-Year (2007-2011)

### Population Composition\*

Race	% of total
White	82.4%
African American	4.5%
Native American	4.0%
Asian or Pacific Islander	3.6%
Other	8.3%

Hispanic Heritage\* 35.1%

Source: U.S. Census Bureau, American Community Survey 5-Year (2007-2011)

\* Persons of Hispanic heritage may be of any race

## Labor Force

### 2012 Civilian Labor Force

	Labor Force	Unemployment Rate
Arizona	3,030,238	8.3%
Pima County	462,748	7.3%
<b>Major Cities/Communities</b>		
Ajo	1,317	13.1%
Catalina	3,979	4.35%
Green Valley	2,980	5.2%
Marana	16,492	6.1%
Oro Valley	18,257	6.0%
Pasqua Yaqui Indian Reservation	N/A	N/A
Sells District	1,162	35.7%
South Tucson	2,445	19.8%
Tucson	250,410	8.0%

Source: Arizona Department of Administration, Local Area Unemployment Statistics (LAUS) Database. N/A - Not Available

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## 2011 Employment by Sector

	in thousands
Construction	30.2
Manufacturing	31.5
Trade, Transportation & Utilities	74.9
Information	7.4
Financial Activities	22.6
Professional & Business Services	47.6
Educational & Health Services	105.9
Leisure & Hospitality	46.7
Government	79.6

Source: U.S. Census Bureau, American Community Survey, 5-Year (2007-2011)  
 Figures are organized under the North American Industrial Classification System (NAICS).

## 2012 Total All Occupations

Employment	429,167
Hourly Compensation	
Median Wage	\$15.59
Average Wage	\$20.40
Entry Wage	\$8.59
Experienced	\$24.41

## 2012 Employment by Occupation Average Wages

	Employment	Avg. Wages
Office & Administrative Support	60,560	\$15.10
Sales & Related	33,750	\$14.45
Food Preparation & Serving Related	38,850	\$10.03
Education, Training & Library	22,090	\$22.60
Construction & Extraction	12,500	\$18.26
Healthcare Practitioners & Technical	23,000	\$37.10
Management	18,740	\$42.37
Production	11,660	\$16.02

Source: Arizona Department of Administration, OES May 2012

## Largest Private Employers in Pima County by Employee Count

Employer	Volume
Raytheon Missile Systems	10,300
Wal-Mart Stores Inc.	7,450
UA Healthcare	6,099
Freeport-McMoRan Copper & Gold	5,463
Carondelet Health Network	3,668
TMC HealthCare	2,977
Fry's Food Stores	2,700
Corrections Corp. of America	2,314
Asarco LLC	2,297
Afri Inc.	2,199
Southern Arizona VA Health Care	2,182
Citi Group	2,000
Bashas' Inc.	1,800
APAC Customer Service	1,777
Safeway Inc.	1,685
Target Stores Inc.	1,640
Northwest Medical Center	1,757
Walgreens	1,420
IBM	1,375
TEP/UniSource Energy	1,232
Sol Casinos	1,300
Union Pacific Railroad	1,200
Circle K Stores	1,200
GEICO	1,155
Ventana Medical Systems, Inc.	1,150

All job figures are estimates. Source: Arizona Daily Star, 2013.  
<http://dynamic.azstarnet.com/star200/>

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## Electric Service

### Major Suppliers:

Tohono O'odham Tribal Utility Authority	(520) 383-2236
Trico Electric Cooperative	(520) 744-2944
Tucson Electric Power	(520) 623-7711

## Natural Gas Service

### Major Suppliers:

Southwest Gas Corporation	(800) 889-5600
Tohono O'odham Tribal Utility Authority	(520) 383-2236

## Water and Sewer

For information, see specific community profile or contact the local chamber of commerce directly.

## Telephone

### Major Suppliers:

Tohono O'odham Tribal Utility Authority	(520) 383-2236
Century Link	(800) 244-1111



### Major Hospitals:

Carondelet St. Joseph's Hospital	(520) 296-3211
St. Mary's Hospital	(520) 872-3000
Northwest Medical Center	(520) 742-9000
Davis Monthan Air Force Base Hospital	(520) 228-2816
El Dorado Hospital and Medical Center	(520) 886-6361
Kino Community Hospital	(520) 294-4471
Palo Verde Mental Health Services	(520) 324-4340
Tucson Heart Hospital	(520) 696-2328
Tucson Medical Center	(520) 327-5461
University Medical Center	(520) 694-0111
Southern Arizona Veterans Affairs Healthcare System	(520) 792-1450



Chapman University (Davis Monthan AFB)	(520) 745-6324
ITT Technical Institute	(520) 408-7488
Northern Arizona University	(520) 879-7900
Park University, (Davis Monthan AFB)	(520) 748-8266
Pima Community College	(520) 206-4500
Tucson Open University	(520) 622-0170
University of Arizona	(520) 621-2211
University of Phoenix	(520) 881-6512



### Highways

Interstate 10, I-19, state Highway 79, state Highway 83, state Highway 85, state Highway 86, state Highway 286, state Highway 386, Indian Route 15, Indian Route 19, Indian Route 21, Indian Route 34

### Bus Lines

Greyhound Bus Lines and Sun-Tran

### Rail Service

Union Pacific Railroad Company (520) 629-2261  
 AMTRAK (520) 623-4442

### Trucking Service

Arkansas Best Freight Systems (ABF) Freight System Inc., Arizona Express, CFI, Citizen Express Lines, Consolidated Freight Ways, Con-Way Western Express, Danny Herman Trucking, DATS Trucking Inc., Dependable Highway Express, GI Trucking Co., Hurley Trucking, Lynden Air Freight, Motor Cargo, NW Transport Service Inc., Overnite Transportation Co., Pro Aire Transport, Roadway Express, Tucson Transport Inc., United Freight Services Inc., Viking Freight Inc., Willard Trucking & Brokerage, Yellow Freight Systems Inc.

### Air Service

#### Major Airports

**Airport Name:** Ajo Municipal  
**Functional Class:** Basic Service  
**Elevation:** 1,458'  
**Ownership:** Public  
**Use:** Public/Military  
**Nav-Aids:** None  
**Runway:** 12/30 Length: 3,784' Width: 60'  
**Surface:** Asphalt

**Airport Name:** Marana NorthWest Regional Airport (formerly Avra Valley Airport) (520) 382-80529  
**Location:** Marana  
**Functional Class:** Corporate Reliever  
**Elevation:** 2,025'  
**Ownership:** Public  
**Use:** Public/Commercial  
**Nav-Aids:** NDB (245.0) / AWOS  
**Runway:** 03/21 Length: 3,900' Width: 75'  
**Surface:** Asphalt  
**Runway:** 12/30 Length: 6,900' Width: 100'  
**Surface:** Asphalt

**Airport Name:** Ryan Airfield (520) 883-9800  
**Location:** Tucson  
**Functional Class:** Business Service  
**Elevation:** 2,415'  
**Ownership:** Public  
**Use:** Public/Military  
**Nav-Aids:** ILS/AWOS/VASI  
**Runway:** 06/24 Length: 5,504' Width: 75'  
**Surface:** Asphalt  
**Runway:** 15/33 Length: 4,000' Width: 75'  
**Surface:** Asphalt

**Airport Name:** Tucson International (520) 573-8100  
**Functional Class:** Commercial Service  
**Elevation:** 2,641'  
**Ownership:** Public  
**Use:** Public/Commercial/Military  
**Nav-Aids:** ILS/DME  
**Runway:** 03/21 Length: 7,000' Width: 150'  
**Surface:** Asphalt  
**Runway:** 11L/29R Length: 10,994' Width: 150'  
**Surface:** Asphalt  
**Runway:** 11R/29L Length: 9,129' Width: 75'  
**Surface:** Asphalt

Source: Department of Transportation, Arizona Airports Land Use Compatibility Study

## Distance to Major Cities



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## Industrial Facilities

### Marana

The Continental Ranch Industrial park is fully developed on 275 acres. More than 2,000 acres near I-10, the railroad, and the Marana NW Regional Airport are zoned for industrial use. For more information, contact the Town of Marana at (520) 682-3401 or the Marana Chamber of Commerce at (520) 682-4314.

### Oro Valley

There are many acres available for industrial development of light, clean businesses in a campus park setting. More sites have all utilities available at the lot line. For current property information, contact the Economic Development Administrator, (520) 297-2591.

### Sells/Tohono O'odham Reservation

There is one industrial park with utilities located on the San Xavier Reservation, seven miles southwest of downtown Tucson along U.S. 89 and adjacent to I-10. Foreign Trade Zone opportunities are available. For further information, contact the San Xavier Development Authority or Northill-Papago, Ltd., 7800 S. Nogales Hwy., Tucson, AZ 85706; (520) 746-3692.

### South Tucson

South Tucson's 4<sup>th</sup> Avenue Corridor has several parcels and land available and zoned for industrial use. Additionally, incentives for industrial development are offered. For further information, contact the City of South Tucson, (520) 792-2424.

### Tucson

Many industrial properties are available with space for light or heavy industry, office, warehouse, commercial and storage. Parcels vary in size and can be obtained by monthly or annual leases. Current information is available from Tucson Regional Economic Opportunities (TREO) Inc., (520) 243-1900.



## Financial Authorities

### Industrial Development Authorities

Industrial Development Authority of Pima County  
Ms. Virginia Yrun, President  
c/o Russo, Cox and Russo  
6700 North Oracle Road, Suite 100  
Tucson, AZ 85704  
(520) 529-1515 / <http://pimaida.com/>

Industrial Development Authority of South Tucson  
c/o City of South Tucson  
1601 South Sixth Avenue  
South Tucson, AZ 85713  
(520) 792-2424 / <http://www.southtucson.org/>

The Industrial Development Authority of the City of Tucson  
c/o Charles Lotzar, Legal Counsel  
335 N. Wilmot Road, Suite 420  
Tucson, AZ 85711  
(480) 905-0300 / <http://www.tucsonida.com>



## Taxes

### Corporate Income Tax

Corporate income tax rate in the State of Arizona is 6.968 percent effective for taxable years beginning from and after December 31, 2000. In 2011, Arizona House Bill 2001, also known as the "Jobs Bill" passed and was signed into legislation by Governor Jan Brewer. As a result of this bill, Arizona's corporate income tax rate will be reduced from its current rate to 4.9% by 2017.

Source: Arizona Department of Revenue

### 2012 Property Tax

Community	School Dist.	City/Fire	Countywide	Total
Ajo	3.58	0.00	4.20	7.78
Catalina Foothills	6.65	0.00	4.20	9.00
Green Valley	1.57	2.04	4.20	7.81
Marana	5.64	0.00	4.20	9.84
Oro Valley	5.60	0.00	4.20	9.80
Sahuarita	5.57	0.00	4.20	9.77
South Tucson	7.37	2.76	4.20	14.33
Tucson	7.37	1.26	4.20	12.83

Source: Arizona Tax Research Association, 2012 (Rate is per \$100 of assessed value)

### Sales Tax

The state imposes a 5.6 percent transaction privilege (sales) tax on most business activities. The cities of Oro Valley, Sahuarita, Marana and Tucson have a 2 percent city sales tax rate. The City of South Tucson has a 2.5 percent sales tax. The following communities have an additional hotel/motel tax: Sahuarita 2 percent; Oro Valley, 6 percent; Marana, 6 percent; The City of Tucson has a hotel/motel tax rate of 6 percent and a \$1 per room rented surcharge. Transient lodging in unincorporated areas of Pima County is subject to a 2% county tax.

Sources: Arizona Department of Revenue (July 1, 2013)

### Payroll Tax

Payroll taxes in Arizona are computed based on federal filing by employers and employees. Generally, withholding for state payroll taxes is between 10 and 32 percent of federal withholding based on employees' income.

Source: Arizona Department of Revenue

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## For Further Information

Ajo District Chamber of Commerce  
1 W. Plaza St.  
Ajo, Arizona, 85321  
Phone: (520) 387-7742  
E-mail: [ajocofc@tabletoptelephone.com](mailto:ajocofc@tabletoptelephone.com)  
Website: <http://www.ajochamber.com>

Green Valley / Sahuarita Chamber of Commerce  
275 West Continental Road, Suite 123  
Green Valley, Arizona, 85622  
Phone: (520) 625-7575  
E-mail: [gvchamber@aol.com](mailto:gvchamber@aol.com)  
Website: <http://www.greenvalleychamber.com>

Marana Chamber of Commerce  
13881 North Casa Grande Highway  
Marana, Arizona, 85653  
Phone: (520) 682-4314  
E-mail: [info@maranachamber.com](mailto:info@maranachamber.com)  
Website: <http://www.maranachamber.com/>

Greater Oro Valley Chamber of Commerce  
7435 N. Oracle Road, Suite 107  
Tucson, Arizona, 85704  
Phone: (520) 297-3191  
E-mail: [dave@orovalleychamber.com](mailto:dave@orovalleychamber.com)  
Website: <http://www.orovalleychamber.com/#>

Town of Oro Valley Economic Development  
11000 N. La Canada Drive  
Oro Valley, Arizona, 85737  
Phone: (520) 229-4735  
E-mail:  
Website: <http://www.orovalleyaz.gov/business>

Pascua Yaqui Tribe of Arizona  
7474 S. Camino de Oeste  
Tucson, AZ 85746  
Phone: (520) 879-6303  
E-mail: [Maria.Arvalo@pascuayagui-nsn.gov](mailto:Maria.Arvalo@pascuayagui-nsn.gov)  
Website: <http://www.pascuayagui-nsn.gov>

City of South Tucson  
1601 S. 6th Ave.  
South Tucson, Arizona, 85713  
Phone: (520) 792-2424  
E-mail:  
Website: <http://www.southtucson.org/>

Tohono O'odham Nation, Economic Development  
P.O. Box 837  
Sells, Arizona, 85634  
Phone: (520) 383-5546  
E-mail: [info@maranachamber.com](mailto:info@maranachamber.com)  
Website: <http://www.tonation-nsn.gov/>

Tucson Metropolitan Chamber of Commerce  
P.O. Box 991  
Tucson, AZ 85702  
Phone: (520) 792-2250  
E-mail: [info@tucsonchamber.org](mailto:info@tucsonchamber.org)  
Website: <http://www.tucsonchamber.org/>

Tucson Regional Economic Opportunities, Inc (TREGO)  
120 N. Stone Ave. Suite 200  
Tucson, Arizona, 85701  
Phone: (520) 243-1900  
E-mail: [into@treoaz.org](mailto:into@treoaz.org)  
Website: <http://www.treoaz.org/>

County profiles are produced by the Arizona Commerce Authority:



333 N. Central Ave. Suite 1900  
Phoenix, Arizona, 85004  
Phone: (602) 845-1200  
Website: [www.azcommerce.com](http://www.azcommerce.com)

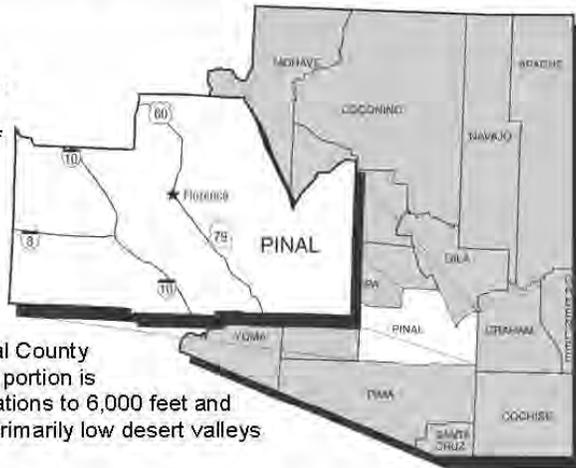
Note: This information is as current as the date of this publication and was taken from reliable sources; however, we do not guarantee its completeness nor does the Arizona Commerce Authority endorse any particular individual. This information is provided as a service only.

## Profile:

# Pinal County, Arizona

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. Most of the southern  $\frac{3}{4}$  of Pinal County and a small area in Apache Junction are designated as Enterprise Zones.

The county is home to many interesting 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 Columbia University'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.



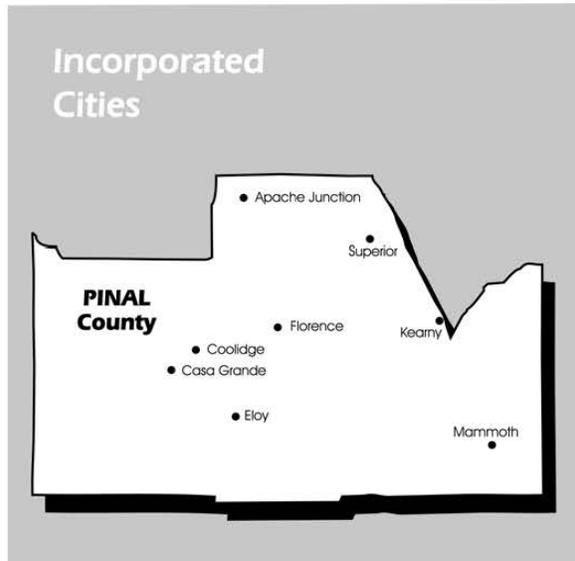
333 N. Central Ave, Suite 1900; Phoenix, Arizona 85004 (602) 845-1200  
[www.azcommerce.com](http://www.azcommerce.com)

Note: This information is as current as the date of this publication and was taken from reliable sources; however, we do not guarantee its completeness nor does the Arizona Commerce Authority endorse any particular individual. This information is provided as a service only.

## Pinal County At-a-Glance

<b>County Seat:</b>	Florence
<b>2012 Population:</b>	389,192
<b>2012 Labor Force:</b>	140,041
<b>Unemployment Rate:</b>	8.9%
<b>Major Industries:</b>	Services Trade Manufacturing Agriculture

Source: July 2012 Population Estimates, Arizona Department of Administration; 2012 Local Area Unemployment Statistics (LAUS), Arizona Department of Administration.



## Population

	1990	2000	2012
Arizona	3,680,800	5,175,581	6,498,569
Pinal County	116,800	179,727	389,192
<b>Major Cities/Communities</b>			
Ak-Chin Indian Community	446	669	N/A
Apache Junction	18,175	31,814	36,928
Arizona City	1,940	4,385	10,475
Casa Grande	19,175	25,224	50,296
Coolidge	6,934	7,786	12,039
Eloy	7,235	10,375	17,433
Florence	7,525	17,054	26,773
Gila River Indian Community	9,540	11,257	N/A
Kearny	2,262	2,249	1,979
Mammoth	1,845	1,762	1,452
Maricopa	N/A	1,482	44,946
Oracle	3,043	3,563	3,686
San Manuel	3,043	3,563	3,551
Superior	3,468	3,254	2,880
Winkelman	676	443	350

Source: U.S. Census Bureau, Arizona Department of Administration, July 2012 Population Estimates.  
N/A - Not available

## Age Distribution

	% of total
0-14	22.7%
15-24	11.6%
25-44	28.6%
45-64	23.3%
65+	14.0%

Source: U.S. Census Bureau, American Community Survey, 5-Year (2007-2011)

## Population Composition\*

Race	% of total
White	78.2%
African American	5.3%
Native American	6.3%
Asian or Pacific Islander	3.1%
Other	10.4%
<b>Hispanic Heritage*</b>	<b>28.8%</b>

Source: U.S. Census Bureau, American Community Survey 5-Year (2007-2011)  
\*Persons of Hispanic heritage may be of any race

Note: This information is as current as the date of this publication and was taken from reliable sources; however, we do not guarantee its completeness nor does the Arizona Commerce Authority endorse any particular individual. This information is provided as a service only

## 2012 Civilian Labor Force

	Labor Force	Unemployment Rate
Arizona	3,030,238	8.3%
Pinal County	140,041	5.4%
<b>Major Cities/Communities</b>		
Ak-Chin Indian Community	469	11.1%
Apache Junction (Pinal)	15,264	10.5%
Arizona City	3,623	5.0%
Casa Grande	21,056	10.0%
Coolidge	6,601	5.0%
Eloy	7,124	13.0%
Florence	3,333	18.5%
Gila River Indian Community	N/A	N/A
Kearny	1,876	5.5%
Mammoth	1,265	14.2%
Maricopa	19,991	9.0%
Oracle	3,293	9.4%
San Manuel	3,505	12.5%
Superior	2,549	18.2%

Source: Arizona Department of Administration, Local Area Unemployment Statistics (LAUS), 2012

## 2011 Employment by Sector

Mining & Construction	2,875
Education & Health Services	5,700
Financial Activities	1,225
Government	20,600
Leisure & Hospitality	4,725
Manufacturing	3,125
Professional & Business Services	6,275
Trade, Transportation & Utilities	8,525
Information	450
Services and Miscellaneous	2,500

Source: U.S. Census Bureau, American Community Survey, 5-Year (2007-2011)

## 2012 Total All Occupations

Employment	55,350
Hourly Compensation	
Median Wage	\$15.55
Average Wage	\$18.75
Entry Wage	\$ 8.49
Experienced	\$23.60

## Employment by Occupation - Average Wages

	Employment	Avg. Wages
Education, Training & Library	4,400	\$19.30
Office & Administrative Support	5,150	\$15.53
Food Preparation & Serving-Related	7,140	\$10.24
Transportation & Material Moving	3,700	\$14.29
Sales & Related	5,200	\$14.15
Production	2,660	\$16.79
Construction & Extraction	1,290	\$19.01
Management	2,280	\$44.00
Installation, Maintenance & Repair	3,240	\$22.20
Healthcare Practitioners & Technical	3,490	\$31.82

Source: Arizona Department of Administration, OES May 2012; Mean wage per hour

## Major Employers

Employer	Employment Type
Abbott Labs/Ross Prod. Div. (Casa Grande)	Nutritionals
Albertson's	Grocery Store
Apache Junction Health Center	Medical Clinic
Apache Junction Schools	Education
Arizona State Prison (Florence)	Detention Centers
Asarco (Hayden)	Copper Mining and Smelting
Bashas'	Grocery Store
Casa Grande Regional Medical Center	Medical Doctors Office
Casa Grande Elementary School Dist.	Education
Casa Grande Union H.S. Dist.	Education
Casa Grande Valley Newspapers	Newspapers/Printing
Central Arizona College (Coolidge)	Colleges and Universities
City of Apache Junction	Government
City of Casa Grande	Government
City of Eloy (Eloy)	Government
Coolidge Unified School District	Education
Corrections Corp. of America (Eloy, Florence)	Detention Center
Eloy Schools (Eloy)	Education
Evergreen Air Center (Marana)	Air Cargo
Flying J Truckstop	Fuel/Restaurant
Frito-Lay (Casa Grande)	Snack Foods
Fry's Food & Drug Store	Grocery Store
Gila River Indian Community	
Government Farms	Farming
Harrah's Ak-Chin Casino	Gaming
Hexcel Corp. (Casa Grande)	Aerospace Manufacturer
Holiday Inn (Casa Grande)	Full Service Hotel
Hunter Douglas Wood Products	Window Treatments
K-Mart	Discount Department Store
Mayville Metals (Casa Grande)	Metal Fabrication
Mulay Plastics of Casa Grande	Plastic Injection Molding
Pinal County	Government
Regional Care Service Corp.	Medical Facilities
Safeway Supermarkets (Coolidge)	Grocery Store
Tanger Outlet Center (Casa Grande)	Factory Outlets
Truckstop of America (Eloy)	Fuel/Restaurant
Wal-Mart	Discount Department Store

Source: Greater Casa Grande Valley Economic Development Foundation  
Companies listed more than 100 employees



## Electric Service

Major Suppliers:

APS	(800) 253-9407
Bureau of Indian Affairs (Coolidge)	(520) 723-6215
Bureau of Indian Affairs (Mammoth/Oracle)	(520) 896-9401
Electric Dist. 2	(520) 723-7741
Salt River Project (Gila River Indian Community)	(602) 236-8888
San Carlos Irrigation Project	(520) 723-5408

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## Natural Gas Service

Major Suppliers:

El Paso Natural Gas (520) 663-4200  
 Southwest Gas Corporation (800) 766-9722

## Water and Sewer

For information, see specific community profile or contact the local city government.

## Telephone

Major Suppliers:

Gila River Telecommunications (520) 796-3333  
 Century Link (520) 509-3629



## Medical

Major Hospitals:

Casa Grande Regional Medical Center (520) 381-6300  
 HoHoKam Memorial,  
 Gila River Indian Community (520) 562-3321



## Education

Central Arizona College, Apache Junction (480) 677-7700  
 Central Arizona College, Aravaipa (520) 357-2800  
 Central Arizona College, Coolidge (520) 494-5444  
 Central Arizona College, Florence (520) 494-6400



## Transportation

### Highways

Interstate 8, I-10, U.S. 60, state Highway 77, state Highway 79, state Highway 84, state Highway 87, state Highway 88, state Highway 177, state Highway 187, state Highway 237, state Highway 287, state Highway 347, state Highway 387, Indian Route 15

### Bus Lines

Greyhound Bus Lines (800) 231-2222

### Rail Service

Union Pacific Railroad (888) 870-8777

### Trucking Service

Arizona Messenger, Consolidated Freight Ways, Hurley Trucking Co., Swift Transportation, TNT Bestway Transportation

### Air Service

Airport Name: Casa Grande Municipal (520) 426-3616  
 Functional Class: Business Service  
 Elevation: 1,462'  
 Ownership: Public  
 Use: Public  
 Nav-Aids: ILS  
 Runway: 05/23 Length: 5,200' Width: 100'  
 Surface: Asphalt

## Distance to Major Cities



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**Airport Name: Coolidge Municipal (520) 723-5361**

Functional Class: Business Service  
Elevation: 1,587'  
Ownership: Public  
Use: Public  
Nav-Aids: None  
Runway: 05/23 Length: 5,550' Width: 150'  
Surface: Asphalt  
Runway: 17/35 Length: 3,740' Width: 75'

**Airport Name: Eloy Municipal (520) 466-4721**

Functional Class: Basic Service  
Elevation: 1,513'  
Ownership: Public  
Use: Public  
Nav-Aids: None  
Runway: 02/20 Length: 3,900' Width: 60'  
Surface: Asphalt

**Airport Name: Estrella Sailport (520) 568-2318**

Location: Maricopa  
Functional Class: Basic Service  
Elevation: 1,273'  
Ownership: Private  
Use: Public  
Nav-Aids: None  
Runway: 6R/24L Length: 2,520' Width: 30'  
Surface: Asphalt  
Runway: 6C/24C Length: 1,995' Width: 20'  
Surface: Dirt  
Runway: 6L/24R Length: 1,910' Width: 50'  
Surface: Asphalt

**Airport Name: Pinal Airpark (No phone)**

Location: Marana  
Functional Class: Business Service  
Elevation: 1,891'  
Ownership: Public  
Use: Public/Military  
Nav-Aids: None  
Runway: 12/30 Length: 6,860' Width: 150'  
Surface: Asphalt

**Airport Name: San Manuel Airport (No phone)**

Functional Class: B/II  
Elevation: 3,275'  
Ownership: Public  
Use: Public  
Nav-Aids: None  
Runway: 11/29 Length: 4,215' Width: 55'  
Surface: Asphalt Runway: 06/24 Length: 5,504'  
Width: 75'  
Surface: Asphalt  
Runway: 15/33 Length: 4,000' Width: 75'  
Surface: Asphalt

**Airport Name: Superior Municipal Airport (No phone)**

Functional Class: Basic Service  
Elevation: 2,646'  
Ownership: Public  
Use: Public  
Nav-Aids: None  
Runway: 04/22 Length: 3,500' Width: 75'  
Surface: Dirt

Source: Arizona Department of Transportation



**Ak-Chin**

There is a 105-acre park in the northeastern section of east Ak-Chin. The park is separated from the reservation by the Casa Grande Highway and Union Pacific Railroad. For more information, contact the Ak-Chin Indian Community at (520) 568-1000.

**Apache Junction**

For further information, contact the City of Apache Junction, Department of Development Services at (480) 474-5083.

**Arizona City**

Arizona City has two industrial parks totalling 119 acres. For additional information, contact the Arizona City Chamber of Commerce, (520) 466-5141.

**Casa Grande**

There are five fully improved parks, most with access to rail, all have excellent access to I-10 and I-8. For more information, contact the Greater Casa Grande Valley Economic Development Foundation, (520) 836-2125.

**Coolidge**

There are several locations with railroad access and a 40+-acre industrial park with all utilities and streets divided into two-and-a-half to five-acre parcels. Also, a 500-acre industrial park with all utilities is located just north of the city. For information, contact the City of Coolidge - Economic Development at (520) 723-6075 or the Coolidge Chamber of Commerce at (520) 723-3009.

**Eloy**

Most sites have full utilities and access to transportation facilities. For more information, contact the City of Eloy at (520) 466-9201, the Eloy Chamber of Commerce at (520) 466-3411 or the Greater Casa Grande Valley Economic Development Foundation at (520) 466-9201.

**Gila River Indian Community**

A new 500-acre business park is located in the nearby Phoenix-Chandler area at I-10 and SR 347. More than 1,477 acres are available with space for light/heavy industry or agri-business. Current information is available from the Gila River Indian Community Economic Development Department at (520) 562-9698.

**Kearny**

For additional information, contact the Town of Kearny, P.O. Box 639, Kearny, AZ 85237, (520) 363-5547.

**San Manuel**

Contact the San Manuel Chamber of Commerce at (520) 385-4360 for local information.

**Industrial Development Authorities**

Industrial Development Authority of Casa Grande  
Donovan Kramer Sr., President  
P.O. Box 15002  
Casa Grande, AZ 85222  
(520) 421-8600

Industrial Development Authority of Florence  
755 N. Main St.  
P.O. Box 2670  
Florence, AZ 85132  
(800) 984-0682

## Corporate Income Tax

Corporate income tax rate in the State of Arizona is 6.968 percent effective for taxable years beginning from and after December 31, 2000. In 2011, Arizona House Bill 2001, also known as the "Jobs Bill" passed and was signed into legislation by Governor Jan Brewer. As a result of this bill, Arizona's corporate income tax rate will be reduced from its current rate to 4.9% by 2017.

Source: Arizona Department of Revenue



### Property Tax

Community	School District	City/Fire	Countywide	Total
Apache Junction	6.03 <sup>+</sup>	0.00	6.56	12.63
Arizona City	5.51 <sup>**</sup>	2.90	6.56	15.01
Casa Grande	6.05 <sup>**</sup>	1.58	6.56	14.23
Coolidge	3.83 <sup>**</sup>	1.51	6.56	11.94
Eloy	9.23 <sup>**</sup>	1.04	6.56	16.87
Florence	7.27 <sup>**</sup>	1.05	6.56	14.92
Kearny	3.43	2.00	6.56	12.03
Mammoth	5.86	2.40	6.56	14.86
Oracle	2.97	5.57	6.56	15.14
Picacho/Red Rock	6.36 <sup>**</sup>	3.42	6.56	16.38
Superior	5.13 <sup>***</sup>	5.93	6.56	17.66

Source: Arizona Tax Research Association, 2012 (Rate is per \$100 of assessed value)

### Sales Tax

The state imposes a 5.6 percent transaction privilege (sales) tax on most business activities. Pinal County has a 1 percent general sales tax. Additional sales tax rates by city are as follows: Apache Junction, 2.2%; Casa Grande, 1.8%; Florence, Mammoth, Maricopa and Superior, 2%; Kearny, Eloy and Coolidge, 3%.

Sources: AZ Department of Revenue (July 1, 2013)

### Payroll Tax

Payroll taxes in Arizona are computed based on federal filing by employers and employees. Generally, withholding for state payroll taxes is between 10 and 32 percent of federal withholding based on employees' income.

Source: Arizona Department of Revenue

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City of Apache Junction - Economic Development  
 300 E. Superstition Blvd.  
 Apache Junction, AZ 85219-2899  
 Phone: 480.474.5096, Fax: 480-474-5110  
 Email: [sfilipowicz@ajcity.net](mailto:sfilipowicz@ajcity.net)  
 Website: [www.aicity.net](http://www.aicity.net)

Apache Junction Chamber of Commerce  
 Apache Junction, AZ 85217  
 Phone: 480.982.3141  
 Email: [ajchamber@qwest.net](mailto:ajchamber@qwest.net)  
 Website: [apachejunctioncoc.com](http://apachejunctioncoc.com)

Arizona City Chamber of Commerce  
 P.O. Box 5  
 Arizona City, AZ 85223  
 Phone: 520.466.5141, Fax: 520.466.8204  
 Email: [azchamber@cgmailbox.com](mailto:azchamber@cgmailbox.com)  
 Website: [www.azchamber.com](http://www.azchamber.com)

Greater Casa Grande Chamber of Commerce  
 575 N. Marshall St.  
 Casa Grande, AZ 85222-5244  
 Phone: 520.836.2125, Fax: 520.836.6233  
 Email: [chamber@cgmailbox.com](mailto:chamber@cgmailbox.com)  
 Website: [www.casaqrandechamber.org](http://www.casaqrandechamber.org)

Central Arizona Regional Economic Development Foundation  
 540 N. Camino Mercado, Suite 2  
 Casa Grande, AZ 85222  
 Phone: 520.836.6868, Fax: 520.836.4898  
 Email: [info@caredf.org](mailto:info@caredf.org)  
 Website: [www.caredf.org](http://www.caredf.org)

Coolidge Chamber of Commerce  
 320 W. Central Avenue  
 Coolidge, AZ 85128  
 Phone: 520.723.3009, Fax: 520.723.9410  
 Email: [info@coolidgechamber.org](mailto:info@coolidgechamber.org)  
 Website: [www.coolidgechamber.org](http://www.coolidgechamber.org)

City of Coolidge, Econ. Dev., Growth Management Dept.  
 141 N. Main Street  
 Coolidge, AZ 85228  
 Phone: 520.723.6075, Fax: 520.723.6079  
 Website: [www.coolidgeaz.com](http://www.coolidgeaz.com)

Eloy Chamber of Commerce  
 305 N. Stuart Blvd  
 Eloy, AZ 85231  
 Phone: 520.466.3411, Fax: 520.466.4698  
 Email: [info@eloychamber.com](mailto:info@eloychamber.com)  
 Website: [www.eloychamber.com](http://www.eloychamber.com)

Copper Basin Chamber of Commerce  
 P.O. Box 206/355 Alden Rd.  
 Kearny, AZ 85237  
 Phone: 520.363.7607, Fax: 520.363.9663  
 Email: [cbc@copperbasinaz.com](mailto:cbc@copperbasinaz.com)  
 Website: [www.copperbasinaz.com](http://www.copperbasinaz.com)

SMOR Tri-Community Chamber of Commerce (San Manuel, Mammoth & Oracle)  
 P.O. Box 416  
 San Manuel, AZ 85631  
 Phone: 520.385.9322, Fax: 520.385.9322  
 Email: [info@smorchamber.org](mailto:info@smorchamber.org)  
 Website: [www.smorchamber.org](http://www.smorchamber.org)

Maricopa Chamber of Commerce  
 1203/45138 West Garvey Drive, Unit B Maricopa,  
 AZ 85239  
 Phone: 520-568-9573  
 Website: [www.maricopachamber.com](http://www.maricopachamber.com)

Florence Industrial Development Authority  
 P.O. Box 1413  
 Florence, AZ 85232  
 Phone: 520.868.3515  
 Email: [info@florenceopportunities.com](mailto:info@florenceopportunities.com)  
 Website: <http://florenceopportunities.com/>

County profiles are produced by the Arizona Commerce Authority:



333 N. Central Ave. Suite 1900  
 Phoenix, Arizona, 85004  
 Phone: (602) 845-1200  
 Website: [www.azcommerce.com](http://www.azcommerce.com)



# GLOSSARY

## **9(D) DEBT**

A debt owed to the federal government related to irrigation systems.

## **A2X**

Access to Excess policy

## **ACC**

Arizona Corporation Commission

## **ACCRUAL BASIS OF ACCOUNTING**

Revenue is recorded when earned and expenses recognized in the period incurred, without regard to the time of receipt or payment of cash (e.g., accrue if work is done but invoice not received).

## **ACRE-FOOT (A/F)**

A unit of water volume measurement. One acre-foot of water will cover an area of one acre to a depth of one foot and equals 43,560 cubic feet, 1,233 cubic meters or 325,851 gallons. An acre-foot is enough water to meet the needs of three average families for one year.

## **ACTIVE MANAGEMENT AREA (AMA)**

A geographical region in Arizona subject to regulation under the Groundwater Management Act. Five active management areas currently exist in the State.

## **AD VALOREM TAX**

A levy upon the assessed valuation of property within the District's service area (Maricopa, Pima and Pinal counties).

## **ADA**

Americans with Disabilities Act

## **ADD WATER (ACQUISITION, DEVELOPMENT AND DELIVERY OF NEW WATER SUPPLIES)**

A collaborative process to determine when new water supplies need to be acquired and how those supplies could be shared.

## **ADDITIONAL RATE COMPONENT (ARC)**

A supplemental charge on power from the NGS (surplus to the needs of the CAP) which is collected to recover funds advanced by the CAWCD for the construction of New Waddell Dam.

## **ADEQ**

Arizona Department of Environmental Quality

## **ADWR**

Arizona Department of Water Resources

## **A/F**

Acre-feet

## **AFRP**

Aqua Fria Recharge Project

## **AG SETTLEMENT**

Set amount of excess water for Agricultural use through 2030

## **AGRICULTURAL WATER**

Water sold to irrigation districts and farmers for agricultural purposes.

**AGRICULTURAL WATER USE**

Water applied to two or more acres of land to produce plants or parts of plants for sale for human consumption or for use as feed for livestock, range livestock or poultry.

**AMA**

Active Management Area

**AMORTIZATION**

The repayment of a loan by installments.

**AMPUA**

Arizona Municipal Power Users Association

**AMWUA**

Arizona Municipal Water Users Association

**APA**

Arizona Power Authority

**AQUEDUCT**

A pipe or channel for transporting water from a remote source, usually by gravity.

**AQUIFER**

A body of rock or sediments that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.

**ARC**

Additional Rate Component

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ)**

A department of state government responsible for groundwater quality protection, water quality standards, and wastewater reclamation and reuse permits.

**ARIZONA DEPARTMENT OF WATER RESOURCES (ADWR)**

A department of state government responsible for water management and administration of water-related programs within the State.

**ARIZONA WATER BANKING AUTHORITY (AWBA)**

A specially created state agency that, in partnership with the CAWCD, helps store unused Arizona Colorado River water in recharge sites around the state to help meet future needs.

**ARS**

Arizona Revised Statute

**ASRS**

Arizona State Retirement System

**ASSESSED VALUATION**

The dollar value assigned to a property for purposes of measuring applicable taxes

**ASSIGNMENT WATER FROM SRPMIC**

As part of the Salt River Pima-Maricopa Indian Community (SRPMIC) water rights settlement, water allocated to Roosevelt Water Conservation District was assigned to the cities of Chandler, Gilbert, Glendale, Mesa, Phoenix, Scottsdale and Tempe.

**AWBA**

Arizona Water Banking Authority

**AWSA**

Arizona Water Settlements Act

**BALANCED BUDGET**

A budget in which estimated revenues equal estimated expenditures.

**BDF**

Basin Development Fund

**BART**

Best Available Retrofit Technology

**“BIG R”**

Major repairs and replacements of capital equipment.

**BOND INDENTURE**

A contract between the issuer of municipal securities and a trustee, for the benefit of the bondholders, which establishes the rights, duties, responsibilities and remedies of the issuer and trustee and determines the exact nature of the bonds.

**BOR**

Bureau of Reclamation

**BUREAU OF RECLAMATION (BOR, USBR, BUREAU OF RECLAMATION)**

A branch of the Department of the Interior responsible for the construction of the CAP.

**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 subcontractors to assist with the District’s annual repayment obligation to the federal government for the reimbursable construction costs of the CAP.

**CAPITAL EXPENDITURE**

Expenditures that result in the acquisition of, or addition to, fixed assets including land, buildings, improvements, machinery and equipment.

**CAPITAL PROJECT**

Projects that: (a) increase the useful life of the asset by three years or more; (b) constitute replacement of the majority of the asset; or (c) enhance or upgrade the asset. If the expenditure maintains the original condition of the asset or maintains a given level of service, it is classified as an operating expense.

**CAPTIVE INSURANCE COMPANY (CAPTIVE)**

A closely held insurance company whose insurance business is primarily supplied by and controlled by its owner(s).

**CAWCD**

Central Arizona Water Conservation District

**CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT (CAGR)**

Created by the State Legislature in 1993 to replenish groundwater in Pima, Pinal and Maricopa counties. CAGR’s purpose is to provide a mechanism for water providers and landowners to demonstrate an Assured Water Supply. The CAWCD operates the CAGR.

**CENTRAL ARIZONA PROJECT (CAP)**

A 336-mile long water conveyance system built to carry water from the Colorado River to central and southern Arizona. The term “CAP” is also used to refer to the CAWCD.

**CENTRAL ARIZONA WATER CONSERVATION DISTRICT (CAWCD OR DISTRICT)**

The multi-county water conservation district established as a special taxing district for the purpose of contracting with the United States for the delivery of CAP water and the repayment of appropriate reimbursable share of construction costs.

**CLIFF DAM REPLACEMENT / HOHOKAM**

Effective December 1993, the Hohokam Irrigation and Drainage District's agricultural subcontract was transferred to the cities of Chandler, Mesa, Phoenix and Scottsdale to replace the water supply that would have otherwise been provided by Cliff Dam, which was not built.

**CONJUNCTIVE USE**

The planned and coordinated use of surface water and ground water supplies to improve water supply reliability.

**DEBT SERVICE**

Principal and interest payments on outstanding bonds.

**DECOMMISSION**

Planned shut-down or removal of a building, equipment, plant, etc., from operation or usage.

**DEFEASANCE**

The setting aside, by a borrower, of cash or bonds sufficient to service the borrower's debt. Both the borrower's debt and the offsetting cash or bonds are removed from the statement of net position.

**DEPRECIATE**

To allocate the cost of an asset over its life.

**DESALINATION**

Specific treatment processes to demineralize sea water or brackish (saline) water for use.

**DGM**

Deputy General Manager

**DISPLACEMENT (ENERGY)**

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

**EFFLUENT**

Water that has been collected in a sanitary sewer for subsequent treatment in a facility that is regulated as a sewage system, disposal plant or wastewater treatment facility. Such water remains effluent until it acquires the characteristics of groundwater or surface water.

**EIMS**

Enterprise Information Management System

**EIS**

Environmental Impact Statement

**ELIMINATION**

An accounting method used to simplify the consolidated financial statement of affiliated companies. When one company is the parent company of a subsidiary company, a consolidated financial statement provides an overall picture of the companies' combined financial position.

**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 (including depreciation) of providing goods and services be financed from revenues recovered primarily through user fees.

**ENTERPRISE RESOURCE PLANNING SYSTEM (ERP)**

An integrated information management system.

**ENVIRONMENTAL PROTECTION AGENCY (EPA)**

A federal agency formed by Congress in 1970 in response to growing public demand for cleaner water, air and soil.

**EPA**

Environmental Protection Agency

**EROC**

Energy Risk Oversight Committee

**EXCESS WATER**

The remaining water available to non-subcontractors after long-term subcontractors have submitted their water delivery schedules.

**EXPENDITURE**

The outflow of funds paid or to be paid for an asset obtained or goods and services obtained regardless of when the expense is actually paid. An encumbrance is not an expenditure. An encumbrance is a commitment of funds for future expenditures.

**EXTRAORDINARY MAINTENANCE PROJECT**

Repair or maintenance to an existing facility that has a cost of \$2,000,000 or more and maintains the original condition or level of utility. These expenses are not reoccurring annual maintenance costs, but out-of-the-ordinary maintenance which occurs infrequently.

**FACILITY USE CHARGES**

A charge assessed to non-subcontractors to assist with the District's annual repayment obligation to the federal government for the reimbursable construction costs of the CAP.

**FAP COMMITTEE**

Finance, Audit & Power Committee, a Board established committee comprised of appointed directors.

**FERC**

Federal Energy Regulatory Commission

**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.

**FEDERAL WATER**

Water used for federal purposes (e.g., Indians, construction water, etc.).

**FIXED ASSETS**

Assets that are used in a productive capacity, have physical substance, are relatively long-lived, and provide future benefit, which is readily measurable, such as land, buildings, machinery, furniture, vehicles, other equipment and capital projects. Those assets that are capitalized and depreciated over a period of time.

**FTE**

Full-Time Equivalent

**FULL-TIME EQUIVALENT (FTEs)**

The conversion of a position to a decimal based on the number of hours worked per year. For example, a full-time position is based on 2,080 hours per year and would be equivalent to 1.0 FTE. A part-time position working 20 hours per week would be equivalent to 0.5 of a full-time position.

**FUND**

A fiscal and accounting entity created by a government for the purpose of tracking the finances of a particular activity, group of activities or revenue source.

**FUND BALANCE**

The difference between assets and liabilities. Also referred to as “net position.”

**GAAP**

Generally Accepted Accounting Principles

**GASB**

Government Accounting Standards Board

**GENERAL OBLIGATION DEBT**

Bonds that are secured by the full faith and credit of the issuer and secured by a pledge of the issuer’s ad valorem taxing power.

**GIS**

Geographic Information System

**GM**

General Manager

**GRIC**

Gila River Indian Community

**GROUNDWATER SAVINGS FACILITY (GSF)**

Water exchange program where surface water is delivered to a water user traditionally reliant upon groundwater. The surface water delivery replaces the use of groundwater, so the groundwater is saved and thereby counted as recharge.

**GSF**

Groundwater Savings Facility

**GSP**

Gross State Product

**GWh**

Gigawatt hour

**H2O4U**

CAP education program

**HMRP**

Hieroglyphic Mountains Recharge Project

**HOOVER CAPACITY CHARGE**

A charge assessed to assist in the repayment of upgrading the Hoover power plant, located at Hoover Dam, to increase generating capacity at the plant.

**HOOVER 4.5 MIL SURCHARGE**

A surcharge established by the 1984 Hoover Power Plant Act on energy from Hoover power plant that is sold in Arizona. The revenues generated from this surcharge are credited to the Lower Colorado River Basin Development Fund and used to offset the District’s annual repayment obligation.

**HVAC**

Heating, Ventilation and Air Conditioning

**ICS**

Intentionally created surplus

**ICUA**

Intentionally created unused apportionment

**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.

**IT**

Information Technologies

**KRA**

Key Result Area

**LINE ITEM**

A specific category of revenue or expense.

**LIVELINK**

A document management system that provides full lifecycle management for any type of electronic document and is a single, authoritative repository for storing and organizing electronic documents.

**LOWER COLORADO RIVER BASIN DEVELOPMENT FUND (LCRBDF OR BDF)**

A special fund established within the United States Treasury to account for all revenues and expenses associated with the CAP.

**LRFP**

Long Range Financial Plan

**LSCR**

Lower Santa Cruz Recharge Project

**M&I**

Municipal and Industrial

**MAINTENANCE EXCELLENCE (ME)**

Industry best practice for maintenance.

**MAINTENANCE MANAGEMENT SYSTEM (MMS)**

An organized system used to ensure that all operations and maintenance activities (e.g., maintenance, inspection, operational testing) are accomplished and documented.

**MASTER REPAYMENT CONTRACT**

A contract entered into between the BOR and the CAWCD for the delivery of water and repayment of costs of the CAP.

**MATS**

Mercury Air Toxic Standard

**MEMBER LAND (ML)**

An individual subdivision that has met the qualifications for membership in the CAGR.

**MEMBER SERVICE AREA (MSA)**

The service area of a municipal water provider that has met the qualifications for membership in the CAGR.

**MISCELLANEOUS WATER**

Water used for recreational and fish and wildlife purposes.

**MSCP**

Multi-Species Conservation Program

**MUNICIPAL AND INDUSTRIAL (M&I) WATER**

Water sold to municipalities, private water companies, and industrial users.

**MWh**

Megawatt hour

**NEPA**

National Environmental Protection Act

**NET POSITION**

The difference between assets and liabilities; also referred to as “fund balance.”

**NGS**

Navajo Generating Station

**NIA**

Non-Indian agriculture priority water entitlements relinquished by the irrigation districts, a significant portion of which was reserved by the United States for Indian settlement purposes with up to 96,295 acre-feet to be reallocated for non-Indian M&I purposes.

**NON-SUBCONTRACT**

A short-term contract between CAWCD and a water customer for the delivery of CAP water.

**NOx**

Nitrogen Oxide

**O&M**

Operations and Maintenance

**OM&R**

Operation, Maintenance and Replacement

**OM&R RECONCILIATION**

An analysis performed to determine the actual cost to deliver CAP water on a per acre-foot basis (reconciled rate) compared to the water rate set by the Board in advance of delivery.

**OPERATING BUDGET**

That portion of the budget that pertains to daily operations that provides basic services. The operating budget contains approved expenditures (e.g., salaries, materials, travel, services, etc.)

**OPERATING PROJECT**

A routine project that maintains or restores the original condition or level of utility. The project is classified as an operating expense.

**OPERATION, MAINTENANCE, AND REPLACEMENT (OM&R)**

Costs incurred for the operation, maintenance, and replacement of the CAP system.

**OSHA**

Office of Safety and Health Administration

**PERMANENT SERVICE RIGHT (PSR)**

Represents the District’s right to operate and maintain the CAP. Title to the Project remains with the federal government. However, the Master Repayment Contract establishes the District as the entity responsible for ongoing operations and maintenance and the repayment of reimbursable construction costs.

**PM**

Preventative Maintenance

**PMRRP**

Pima Mine Road Recharge Project

**POTABLE WATER**

Water having no impurities present in amounts sufficient to cause disease or harmful physiologic effects; also conforms in its bacteriologic and chemical quality to the requirements of the U.S. Environmental Protection Agency's Safe Drinking Water Act or meets the regulations of other agencies having jurisdiction.

**PSC**

Project Steering Committee which is comprised of a cross-functional management team that has been established to evaluate, prioritize and oversee large projects.

**PSR**

Permanent Service Right

**RATE**

A charge or payment calculated in relation to a particular sum or quantity (e.g., water rates).

**RECHARGE**

The process of replenishing underground aquifers with water by putting water in basins so it can percolate through the soil.

**RECHARGE WATER (ALSO REFERRED TO AS UNDERGROUND STORAGE WATER)**

Water used to replenish groundwater supplies either directly through delivery of water to an existing recharge project or indirectly by delivering water in lieu of pumping water from the ground.

**RENEWABLE GROUNDWATER**

The amount of groundwater naturally replenished that could be annually withdrawn without causing significant water-level declines.

**REPAYMENT STIPULATION (OR STIPULATION)**

The 2003 agreement between the United States and CAWCD, approved by the U.S. District Court, that resolved litigation regarding CAWCD's repayment obligation for the CAP and other matters.

**REPLENISHMENT**

Replacement of groundwater supplies that have been pumped.

**RESERVE**

An account established with the Arizona State Treasurer to invest funds and can be categorized as designated, assigned, restricted or unrestricted.

**RESERVED ENERGY**

The energy that CAP reserves for its operational use.

**REVENUE BOND**

A type of bond that is backed only by the revenues from a specific source (e.g., power revenues).

**RIPARIAN RIGHT**

A water right based on the ownership of land bordering a river or waterway.

**RSEDRA**

Reclamation States Emergency Drought Relief Act

**SCADA**

Supervisory Control and Data Acquisition

**SHAPING (ENERGY)**

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

**SMRP**

Superstition Mountains Recharge Project

**SMT**

Senior Management Team

**SO<sub>2</sub>**

Sulfur Dioxide

**SOP**

Standing Operating Procedures

**SPOC**

Strategic Plan Oversight Committee

**SRP**

Salt River Project

**SRPMIC**

Salt River Pima-Maricopa Indian Community

**STANDARD OPERATING PROCEDURES (SOP)**

A comprehensive single-source document covering all aspects of operation and maintenance and emergency procedures. Its purpose is to ensure adherence to approved operating procedures.

**STRATEGIC FRAMEWORK**

The Strategic Framework reflects the intended direction of a business, providing the purpose, vision, mission, goals and underlying philosophies and strategies necessary to achieve them.

**STATE DEMONSTRATION PROJECT**

A project for the storage of excess CAP water at an underground storage facility.

**SUBCONTRACT**

Long-term (50 year) contract among the CAWCD, BOR and a water customer for the delivery of CAP water.

**SUBSIDENCE**

Sinking elevation of the ground surface; the process may occur over an aquifer that is slowly draining and decreasing in volume because of pore collapse.

**SUCCESSION PLANNING PROGRAM**

A systematic process where managers identify, assess and develop their staff to make sure they are ready to assume key roles within the company.

**SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)**

Computer system used by Water Operations to operate the CAP.

**SURCHARGE**

An additional levy added to a charge.

**SURPLUS WATER**

Water declared surplus on the Colorado River by the Secretary of the Interior.

**TDRP**

Tonopah Desert Recharge Project

**TURNOUT**

A structure used to divert water from the CAP system to a smaller channel.

**UNDERGROUND STORAGE FACILITY (USF)**

There are two types of underground storage facilities: constructed and managed. A constructed facility requires the construction of infiltration structures (basins, furrows, ditches, etc.), while a managed facility uses preexisting natural channels for recharge.

**UNDERGROUND STORAGE WATER (ALSO REFERRED TO AS RECHARGE WATER)**

Water used to replenish groundwater supplies either directly through delivery of water to an existing recharge project or indirectly by delivering water in lieu of pumping water from the ground.

**USF**

Underground Storage Facility

**USGS**

United States Geological Survey

**VPP**

Voluntary Protection Program is a workplace occupational safety and health designation.

**WAPA**

Western Area Power Administration

**WATER CREDITS**

If water is to be stored for use in later years, it must meet the eligibility requirements for long-term storage and recovery. These eligibility requirements focus on whether the storer could put the water to direct use rather than storing it for future use, particularly if the storer will be using groundwater to supply its immediate needs. If the storage does qualify for long-term storage, a credit is made to the storer's long-term storage account and will be available for use at any time the storer wishes to call on it.

**WATER O&M CHARGES**

Water revenues collected from the various customer categories (agriculture, M&I, federal, and recharge) that offset the expenses associated with the delivery of water.

**WATER RIGHTS**

A property right to make specific beneficial use of a particular amount of water with a specified priority date.

**WATER STORAGE TAX (4-CENT TAX)**

Tax levied under ARS § 48-3715 and authorizes CAP to levy a Water Storage tax up to 4 cents per \$100 as assessed valuation.

**WATER TABLE**

The top of the water surface in the saturated part of an unconfined aquifer.

**WATERSHED**

The region or land area drained by a river; also called a drainage basin.

**WHEELED WATER OR WHEELING**

Water transferred between two agencies whereby one agency uses its system infrastructure to treat and/or convey water that is owned by the receiving agency.

**YDP**

Yuma Desalting Plant



Canal at Burnt Mountain



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