

*Coachella Valley
Water District*

Fiscal Year

2018-19

Operating &
Capital Improvement Budget



COACHELLA VALLEY WATER DISTRICT
Operating & Capital Improvement Budget
Fiscal Year 2018-19



John P. Powell, Jr., *President, Division 3*
Cástulo R. Estrada, *Vice President, Division 5*
G. Patrick O’Dowd, *Director, Division 1*
Anthony Bianco, *Director, Division 2*
Peter Nelson, *Director, Division 4*

Jim Barrett, *General Manager*
Robert Cheng, *Assistant General Manager*

P.O. Box 1058
Coachella, CA 92236
(760) 398-2651
www.cvwd.org



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*Distinguished
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California**

For the Fiscal Year Beginning

July 1, 2017

Christopher P. Morrill

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Coachella Valley Water District, California for its annual budget for the fiscal year beginning July 1, 2017. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device

This award is valid for a period of one year only. We believe our current budget continues to conform to the program requirements, as we are submitting it to the GFOA to determine its eligibility for another award.



CVWD Mission Statement

To meet the water-related needs of the people, through dedicated employees, providing high quality water at a reasonable price.

Board of Directors



*Standing from left: **Peter Nelson**, Division 4; **John P. Powell, Jr.**, Board President, Division 3; **G. Patrick O'Dowd**, Division 1. Seated from left: **Anthony Bianco**, Division 2; **Cástulo R. Estrada**, Board Vice President, Division 5.*

Contact Information

This document is produced annually by the Finance and Communications & Conservation departments. Anyone needing additional information may contact us at:

Coachella Valley Water District
P.O. Box 1058
Coachella, CA 92236
(760) 398-2651

Coachella Valley Water District
Steve Robbins Administration Building
75-515 Hovley Lane East
Palm Desert, CA 92260
(760) 398-2651

Acknowledgements

Thomas Rice, *Financial Analyst*
Teri Vorster, *Financial Analyst*
Tina Donahue, *Management Analyst*
Laura Kleeman, *Management Analyst*
Nancy Clark, *Budget Analyst I*
Victoria Jeffers, *Administrative Assistant I*

A special thank you to **Tony DeZego** in the Communications & Conservation Department

The fiscal 2019 Budget
is available on our website:
www.cvwd.org

District Department Heads

Clerk of the Board	Sylvia Bermudez
Communications & Conservation.....	Katie Evans
Engineering	Craig Parker
Environmental Services.....	Steve Bigley
Facilities & Maintenance	Dan Charlton
Finance	Geoffrey Kiehl
Human Resources.....	Heidi Keeran
Information Systems	Luis Maciel
Operations.....	Dan Farris
Service.....	Raul Aguirre

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Budget Message





COACHELLA VALLEY WATER DISTRICT

Established in 1918 as a public agency

GENERAL MANAGER
Jim Barrett

ASSISTANT GENERAL MANAGER
Robert Cheng

June 12, 2018

To the Board of Directors:

For the last century, the Coachella Valley Water District (CVWD, District) has provided residents and businesses across the Coachella Valley with a safe and reliable water supply. Our mission is to meet the water-related needs of the people through dedicated employees, providing high quality water at a reasonable cost. This is a mission that will take us through the next century.

With this commitment to the future, management presents the fiscal 2019 Operating and Capital Improvement Budget. The purpose of this budget is to provide customers, potential investors, and other interested parties with reliable financial information about CVWD.

Through the process of planning and preparing the budget, CVWD assesses its plans and goals for the foreseeable future. While the adoption of this budget focuses on identifying and estimating the spending of financial resources, it is also a policy document, drives management decisions for 2019, and plays a critical role regarding decisions for the future of CVWD.

Budget Summary

The fiscal 2019 operating budget amounts to \$288.7 million and is supplemented with \$121.2 million in capital improvements to provide a total financial program of \$409.9 million.

	Budget FY 2018	Budget FY 2019	Budget Change	% Change
Operating Budget*	265,856,000	288,669,000	22,813,000	8.6%
Capital Improvement Projects	104,834,000	121,247,000	16,413,000	15.7%
Total Budget	370,690,000	409,916,000	39,226,000	10.6%

*net of capitalized labor

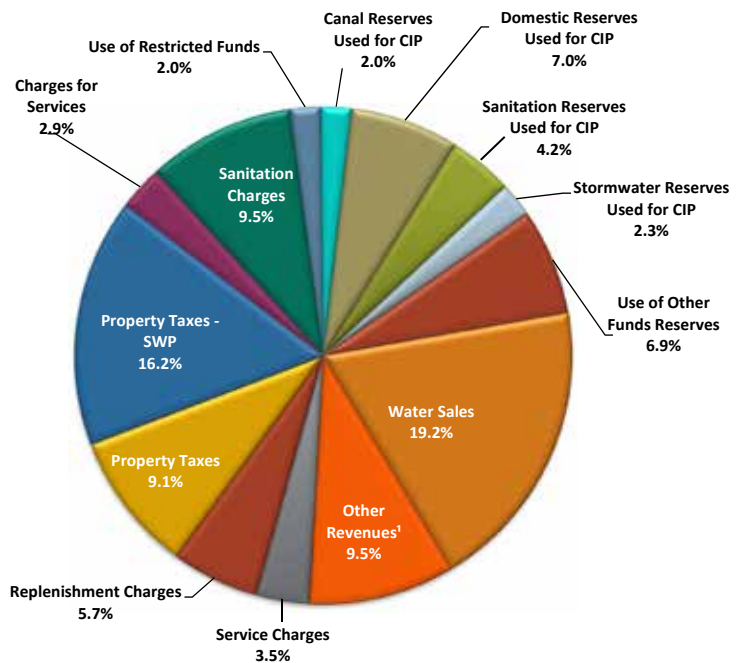
The operating budget increased by \$22.8 million, or 8.6% largely because of increases in salaries & benefits, supplies & services, and Quantification Settlement Agreement Mitigation payments. Interfund debt service decreased by \$2.8 million. The loan payment between the East Whitewater Replenishment Fund and the Domestic Water Fund has been re-amortized to help maintain reserves.

Capital improvement projects increased \$16.4 million as compared with the fiscal 2018 amended budget. More information can be found in the Capital Improvement chapter.

Revenues and Other Sources: \$409,916,000

The District receives funding from a variety of sources: domestic water sales, sanitation service charges, groundwater replenishment charges, proceeds from ad valorem property taxes, monthly domestic water service charges, sales of nonpotable water, sales of irrigation water, grants, investment income, assessments that support future development, and charges for miscellaneous services.

Water sales, which are the sales from domestic water, recycled or nonpotable water, and canal irrigation water are 19.2% of total revenues in fiscal 2019. In addition, proceeds from State Water Project taxes are 16.2%, with ad valorem property taxes at 9.1% of total revenues. Proceeds from debt issuance are included in the revenue budget and include \$11.7 million in proceeds from State Revolving Fund loans.



¹ Availability Charges, Quagga, Intergovernmental Revenue, Investment Income, Debt Proceeds, Interfund Revenues, Grants, Capital Improvement Reimbursements, Other Revenues

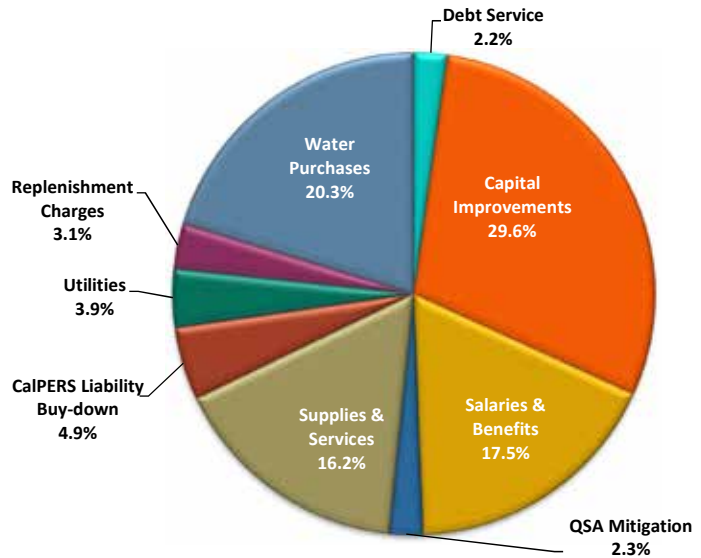
For fiscal 2019, a significant source of funding is the use of reserves for capital. This is a planned use as those funds which were set aside to start or finish capital projects previously identified as necessary and budgeted in an earlier fiscal year but not fully expended. This has allowed the District to adopt a budget that includes no rate increases for any of its services.



Aerial view of Wastewater Reclamation Plant No. 10

Fiscal 2019 Expenses and Other Uses: \$409,916,000

Although the Coachella Valley relies on a vast aquifer, the region depends on imported water to protect and replenish groundwater supplies. Through the foresight of our predecessors, the Coachella Valley Water District is only one of two California water agencies that hold rights to both Colorado River water and State Water Project water. The recent droughts within California and on the Colorado River basin are a stark reminder of how vulnerable our imported water supplies are to the forces of nature, and that these supplies need to be protected and optimally used. The District's largest operating expense is for the purchase of imported water. In fiscal 2019, approximately \$83.1 million is appropriated for water purchases.



Salaries & benefits are 17.5% of the budget and include the addition of five personnel in several departments to address functions critical to providing service in accordance with best management practices. Supplies & services are 16.2% of the budget and include important expenses for asset management, capital master planning, replacement of facilities, chemicals for treatment, insurance, and professional development.

The fiscal 2019 budget also includes \$20 million for payments towards the CalPERS unfunded liability. This will ensure greater financial flexibility in future years, save the District money, and enhance the District's portfolio for possible future debt issuance.

The largest nonoperating expense category is for capital improvement projects. The budgeted \$121.2 million includes funding for projects across all of the District's services as well as vehicle and equipment replacements.

Short- and Long-Term Issues Impacting the Budget

Investment in Infrastructure

Large portions of the District's infrastructure are aging and require major investment in both the short- and long-term. Two years ago, the District began a comprehensive Asset Management Master Plan to address the state of the infrastructure. To date, the Canal and Sanitation assets have been identified, inventoried, assigned criticality ratings, and have been uploaded into the new Computerized Maintenance Management System (CMMS). For fiscal 2019, the focus will be on identifying and inventorying the Domestic Water assets. When the project is complete, it will provide the District with a comprehensive view of the state of the assets and a timeline for replacement based on likelihood and consequence of failure. The District currently has the reserves to address the immediate replacement and improvement projects, but is taking a proactive look at alternative funding sources, in addition to revenue bond funding.

California Water Fix

California's largest supply of clean water is dependent on an aging and inefficient system that cannot adequately store water when it is available. The proposed solution, the California Water Fix, will update the infrastructure, reduce risk from earthquakes, and provide reliable water while protecting the environment. Part of the cost to fix California's primary water delivery system will be paid for by State Water Project contractors and other public

water agencies that rely on the supply. State Water Project contractors are estimated to contribute \$11 billion to the project; the District's share would be based on its percentage of entitlement, which is 3.4%. Cost estimates and financing plans are being developed. This project will have a major impact on rates in the Coachella Valley.

Agua Caliente Lawsuit

The Agua Caliente Band of Cahuilla Indians filed a lawsuit on May 14, 2013 against CVWD and Desert Water Agency (DWA) claiming senior water rights above all users in the Coachella Valley. The suit was broken into three phases. In March 2017, the Ninth Circuit Court granted federal groundwater rights to the Agua Caliente (Phase 1). In July 2017, the District and DWA filed petitions with the U.S. Supreme Court asking the Court to review the ruling. The Supreme Court declined to hear the case at this time. Phase 2 continues to be litigated through the Federal Court system.

State Water Project Costs

In early 2017, the Oroville Dam, a part of the State Water Project system, suffered severe damage and erosion to the Gated Spillway and Emergency Spillway. The cost for cleanup, and the initial cost to reconstruct the dam, is in excess of \$850 million. Efforts are being made to recover these costs from the Federal Emergency Management Agency (FEMA). However, whatever costs FEMA will not reimburse the State Water Project for, will be passed on to the State Water Project Contractors. These costs will then be passed on to District ratepayers.



Oroville Dam Spillway

Increasing CalPERS Costs

The District provides retirement benefits to District employees through the California Public Employees Retirement System (CalPERS). Although the District pays what it is billed annually, the District's unfunded liability is in excess of \$137 million. Due to changes in actuarial assumptions made by the CalPERS Board, as well as projected rate of return on investments, the unfunded liability is expected to increase. A significant portion of the current CalPERS contributions are directly related to paying off the principal and interest of the unfunded liability. It is expected that these will grow significantly over the next ten years, which will have a direct impact on rates. The fiscal 2019 budget includes a \$20 million contribution to buy down a portion of the liability. This will improve the District's balance sheet as well as mitigate some future CalPERS rate increases. Future budgets will need to address this issue.

Financial Stability

While the District has strong reserves in fiscal 2019, there is increasing pressure on reserves in the short-term. There is an emphasis on improving the execution rate of the Capital Improvement Program. Historical execution rates have hovered around 50 to 60%, which has caused the District's unobligated cash levels to temporarily grow. As the rate of execution increases, more unobligated cash will be used, unless alternative funding sources are developed, or rates are increased. In addition, the preceding issues (above) all put pressure on reserves and rates. While the fiscal 2019 budget was adopted with no rate increases, future budgets may require rate increases in some funds to ensure reserve targets are met.

Conclusion

The Coachella Valley Water District takes a proactive approach to managing our District and the precious resources entrusted to it. The District maintains transparency, responsiveness, and stewardship to our customers, stakeholders, and employees. This budget addresses the priorities established for fiscal 2019.

I would like to express my appreciation to the management and staff who worked diligently in developing a budget that reflects the needs of the District. A special note of thanks should go to the Finance Department for their excellence in gathering, analyzing, and presenting information clearly and accurately. We are confident that this budget document reflects the policies and direction of the Board of Directors, and provides the financial plan for a successful year.

Respectfully submitted,



Jim Barrett
General Manager

Overview



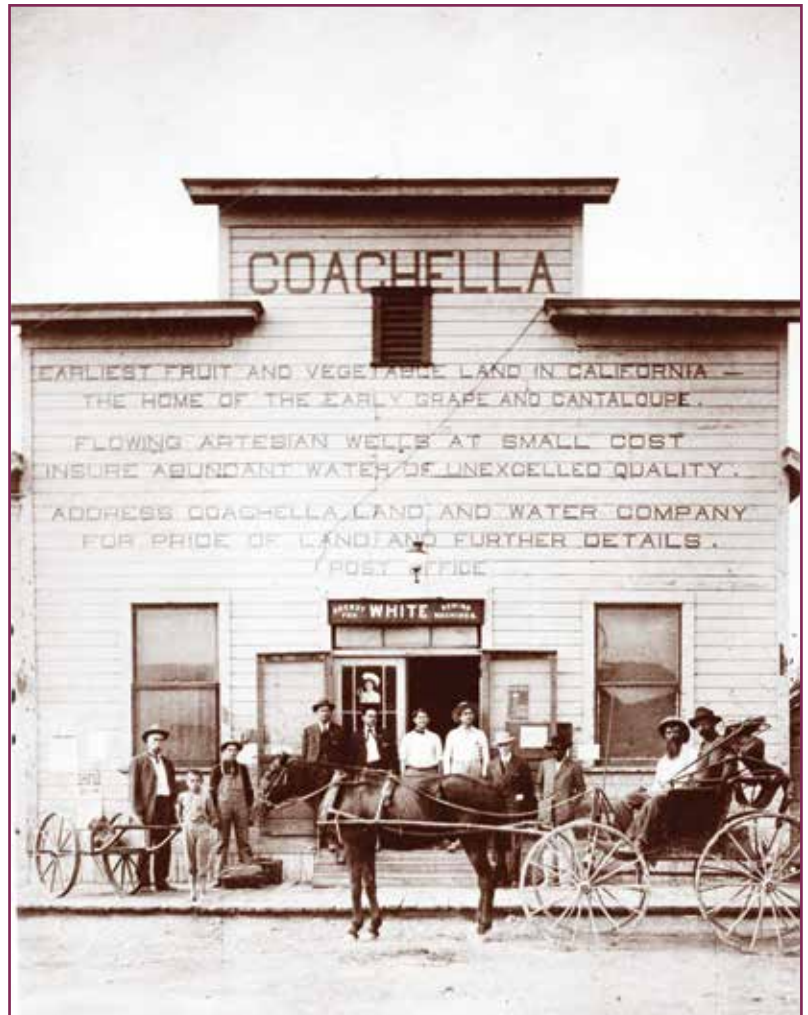
About the Community

One hundred years ago, the Coachella Valley (Valley) was an attraction to many settlers due to year round sunshine, inexpensive land, and a plentiful water supply. Today, the Coachella Valley has remained an alluring attraction due to the same sunshine, low cost of living, and playground for both residents and tourists alike.

The Valley is a desert in Southern California which extends approximately 45 miles in Riverside County, southeast from the San Bernardino Mountains to the northern shore of the Salton Sea. It is approximately 15 miles wide along most of its length and surrounded by scenic, rugged mountains. To the north is Mount San Gorgonio; on the north and the east, the Little San Bernardino Mountains; to the west, the San Jacinto Mountains; to the south, the Santa Rosa Mountains; and to the east in the distance, the Chocolate Mountains. The elevations on the Valley floor range from 1,600 feet at the north end of the Valley, to 250 feet below sea level at the south end of the Valley. The southern segment of the San Andreas Fault crosses the Valley beginning near Bombay Beach, near the Salton Sea, and runs along the southern base of the San Bernardino Mountains. The fault is easily visible on the northern side of the Valley, as a strip of greenery against an otherwise bare mountain. Because of this fault, the Valley has many hot springs. Fault lines cause hot water springs or geysers to rise from the ground. These natural water sources made habitation and development possible in the otherwise inhospitable desert of the Coachella Valley.

Today, the Valley's population is estimated at over 458,000 and continues to grow an estimated 5,000 people per year. Seasonal population is estimated to bring in over 140,000 residents from November to May. The "snowbirds" come during this time to escape the harsh winters from other parts of the country and Canada.

Many influential people over the years have added to the fabric of what makes our Valley a great place to live. The Coachella Valley was popular among celebrities who came and continue to come to enjoy vacations and winter homes in the desert resort community. Also it became a major real estate destination in the 1980's and 1990's, no longer limited to senior citizens, winter residents, and retirees. Families with young children and young adults became interested in Coachella Valley for lower cost housing. As a tourist destination, the Coachella Valley can be considered a Southwest attraction as a part of Southern California along with San Diego, Orange County, and Los Angeles. US News and World Report ranked Palm Springs 8th in Best Luxury Destinations in the USA.



Coachella's first post office was established in November of 1901

Coachella Valley Water District Boundary Map



Attractions

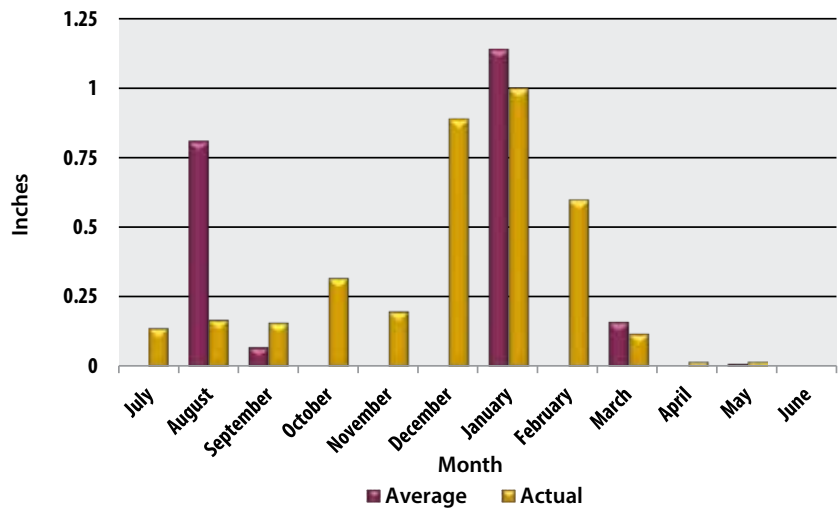
With more than 350 days of sunshine per year and the warmest winters in the western US, the Valley is recognized as the golf, tennis, and polo capital of the West. Recreational hiking and horseback riding are popular in the many canyons in the mountains that surround the valley. Many internationally known events and attractions are hosted here that boost tourism and the local economy:

- Palm Springs International Film Festival
- Palm Springs Short Fest
- BNP Paribas Open Tennis Tournament
- Coachella Music Festival
- Stagecoach Music Festival
- Career Builder Challenge Golf Tournament
- Riverside County Fair and National Date Festival
- The Desert Circuit Horse Show
- Coachella Valley Wildflower Festival
- Fashion Week El Paseo
- Modernism Week
- La Quinta Arts Festival
- Coachella Valley Comedy Festival
- Southwest Arts Festival
- International Tamale Festival
- McCallum Theatre
- Palm Springs Air Museum
- Palm Springs Aerial Tramway
- Palm Springs Art Museum
- Palm Springs Desert Resorts Restaurant Week
- Living Desert Zoo and Botanical Garden
- Tour de Palm Springs
- Rancho Mirage Observatory
- Villagefest
- Joshua Tree National Park
- Palm Desert Golf Cart Parade
- Santa Rosa and San Jacinto Mountains National Monument
- College of the Desert Street Fair
- American Documentary Film Festival

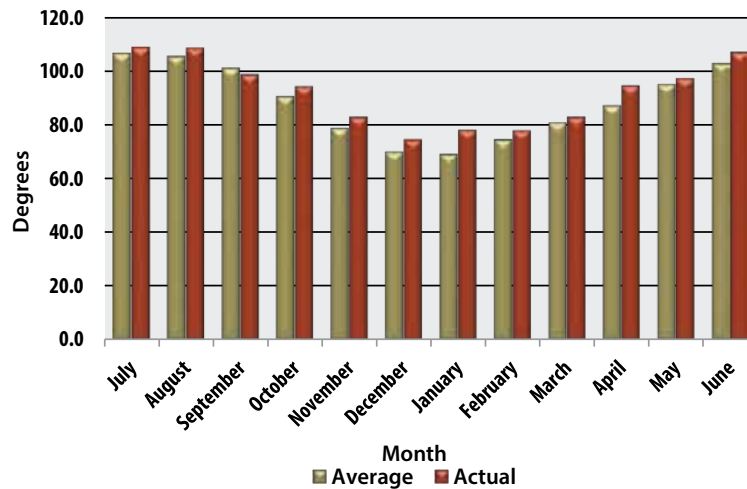
Weather

The mountains surrounding our Valley not only add to the desert’s beauty, but also create a “rain shadow,” which blocks weather systems that move through Southern California. Many times, it can be raining 20 miles to the west, while the sun is shining over the Coachella Valley. Overall, rainfall was less this fiscal year by over 4 inches from last year’s 6.46 inches. Thankfully, our actual high temperature average of 92.1 degrees was lower this fiscal year than last even though it exceeded the average high temperature of 88.7 degrees expected for the Coachella Valley.

**Coachella Valley Precipitation
Actual vs. Average
Fiscal 2018**



Coachella Valley High Temperatures Actual vs. Average Fiscal 2018



Economic Indicators

With our national economic recovery steadily improving and the strengthening of the Canadian dollar, retail sales, hospitality, and outdoor recreation is on the rise. Home prices remain competitive and the job market is doing well as the local cities in the Valley look to attract a more diversified employer pool for its residents.

Tourism: Tourism is the region's largest and most dynamic sector, and is a critical component of the Valley's economy. It generates approximately 51,000 jobs and more than \$7.0 billion for the local economy, according to a Tourism Economics study commissioned by the Greater Palm Springs Convention and Visitors Bureau (CVB). Approximately 22% of total employment, 1 in every 4 jobs, is sustained by the tourism industry.

The hospitality scene has over 200 resorts and hotels throughout the Valley that range from eccentric inns to chic boutique hotels to private, midcentury vacation rentals to elegant hotels with luxurious offerings. There were 6.1 million overnight visitors in 2017. This is a 6% increase from 2015.

Retail: Taxable retail sales per capita is a great metric to measure a city's wealth. This measure represents a large portion of tax revenue the government can spend on its residents. Palm Desert's El Paseo and downtown Palm Springs lead the Valley in retail sales offering a more intimate shopping experience with smaller owner operated businesses along with national and international brands. As tourism deepens, retail employment will grow.

Golf: Golf facilities contribute to the economic strength of the Coachella Valley. Tourism Economics was hired by the Hi-Lo Desert Golf Course Superintendents Association to estimate the benefits of the golf industry to the Coachella Valley. It was determined that the region's 122 golf courses, which represents roughly 13.9% of California's golf industry, generates an estimated \$745 million in golf related spending and directly employs over 8,000 workers. An additional \$7.2 million is generated by golf tournament organizational and media expenditures.

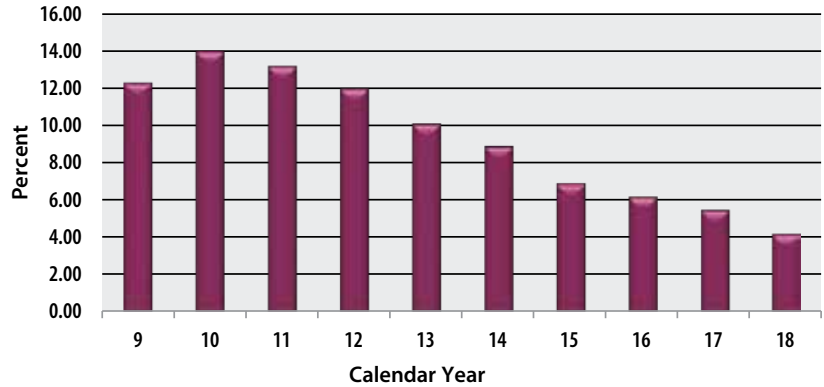
Crop Production: Irrigation of over 76,000 acres of the Valley from the Colorado River water, delivered via the Coachella Canal has allowed widespread agriculture to flourish. Current crop production for calendar year 2017, listed in CVWD’s annual crop report, is valued at over \$627 million with an average gross value per acre of over \$9,000. The most lucrative crops are table grapes, citrus, bell peppers, and carrots.

Employment: Unemployment in Riverside County has continued to decrease since hitting a high over 14% in 2010. In March 2018, the unemployment rate was 4.2%. The graph to the right shows a ten-year unemployment history in Riverside County.

Housing Prices: The 2017 real estate market showed positive growth, with the number of closings and sales prices on the rise. The Valley maintains an inventory of homes that includes affordable price points for all buyer types. Inventory declined along with days on the market. Increases in home prices can be driven by reduced inventory and lack of new home building. There are several small and mid-sized projects open with anticipation of additional openings across the valley in 2018. There are two master planned communities slated for Palm Springs and Indio. As more inventory hits the market, it will help to bridge the supply gap¹.

In January 2018, closed sales were up 4.6%, pending sales were up 22%, and the median price was up 15.1% compared to the same time last year².

**Riverside County Unemployment Rate
Ten-Year History**



¹Desert Sun

²Realty Times



Replenishment Pond at Whitewater

Coachella Valley City Profiles

The Coachella Valley is comprised of the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage, and several unincorporated areas, which include Mecca, Oasis, Salton City, Thermal, Sky Valley, Indio Hills, and Thousand Palms. The table below shows population, housing, and income data for the Valley’s cities and unincorporated areas. Please note: data is not available for Salton City, Thermal, Sky Valley, or Indio Hills.

Category	Cathedral	Desert				Indio	La Quinta	Mecca	Oasis	Palm Desert	Palm Springs	Rancho Mirage	Thousand Palms
	City	Coachella	Hot Springs	Indian Wells									
Population¹													
Population	54,596	45,443	28,757	5,404	88,793	41,304	8,577	6,890	52,932	48,142	18,306	7,715	
Housing¹													
Number of housing units	17,680	11,379	9,275	2,772	27,290	15,232	2,049	1,059	23,729	23,556	9,510	2,776	
Owner-occupied housing units	10,581	7,389	4,220	2,381	17,602	10,617	961	724	14,261	13,827	7,522	2,010	
Owner-occupied housing unit rate	59.8%	64.9%	45.5%	85.9%	64.5%	69.7%	46.9%	68.4%	60.1%	58.7%	79.1%	72.4%	
Median value housing units	203,900	161,400	143,300	667,000	230,300	360,900	115,300	13,800	316,300	303,100	471,300	152,300	
Gender													
Female	47.1%	50.2%	49.5%	49.2%	49.9%	51.3%	50.4%	51.6%	53.0%	42.9%	50.3%	52.2%	
Male	52.9%	49.8%	50.5%	50.8%	50.1%	48.7%	49.6%	48.4%	47.0%	57.1%	49.7%	47.8%	
Age													
Under 18 years	25.3%	33.5%	29.8%	3.0%	27.3%	21.2%	40.9%	39.4%	16.4%	12.8%	8.0%	20.4%	
65 years and over	15.2%	5.3%	11.6%	62.2%	15.7%	24.4%	5.0%	3.9%	31.6%	29.4%	51.5%	24.3%	
Education²													
High school graduate or higher	76.3%	52.2%	68.1%	94.5%	74.2%	89.7%	28.0%	18.6%	91.3%	88.4%	96.1%	78.2%	
Bachelor’s degree or higher	18.0%	3.3%	12.2%	55.9%	16.0%	35.5%	1.4%	0.6%	35.5%	35.3%	44.6%	16.1%	
Income³ (\$)													
Median household income	41,696	36,124	34,059	96,961	49,551	71,338	26,680	22,210	53,701	46,059	66,083	43,207	
Female median income	32,483	24,355	28,589	100,136	35,224	46,318	24,375	17,500	41,474	42,188	77,273	33,182	
Male median income	32,002	28,143	34,153	131,500	37,506	56,608	22,517	20,169	50,616	49,286	88,690	41,597	

Source: U.S. Census Bureau
 Profile information not yet available for Salton City, Thermal, Sky Valley, and Indio Hills
 Data is based on a sample and is subject to sampling variability

¹ July 2017
² Age 25 years and older
³ 2017 dollars

Coachella Valley’s cities have seasonal population, which increases during the fall, winter, and spring months, and it is not included in the data in the table above. The seasonal population is due to the large number of second or vacation homes, and it is estimated to increase the Valley’s population by approximately 20%.



About the Coachella Valley Water District



Paving project at WRP 10

District Governance

Coachella Valley Water District (CVWD, District) is a special district established by the state legislature and governed by a five-member Board of Directors (Board) elected to four-year terms by District voters. Terms of office are staggered and elections are held every two years, for two or three of the five Board members.

Each director represents a division of the District.

Effective June 3, 2014, CVWD Board members are no longer elected at-large. They are elected by the voters within their division. In order to run, candidates for the Board must reside within the boundaries of the division they wish to represent.

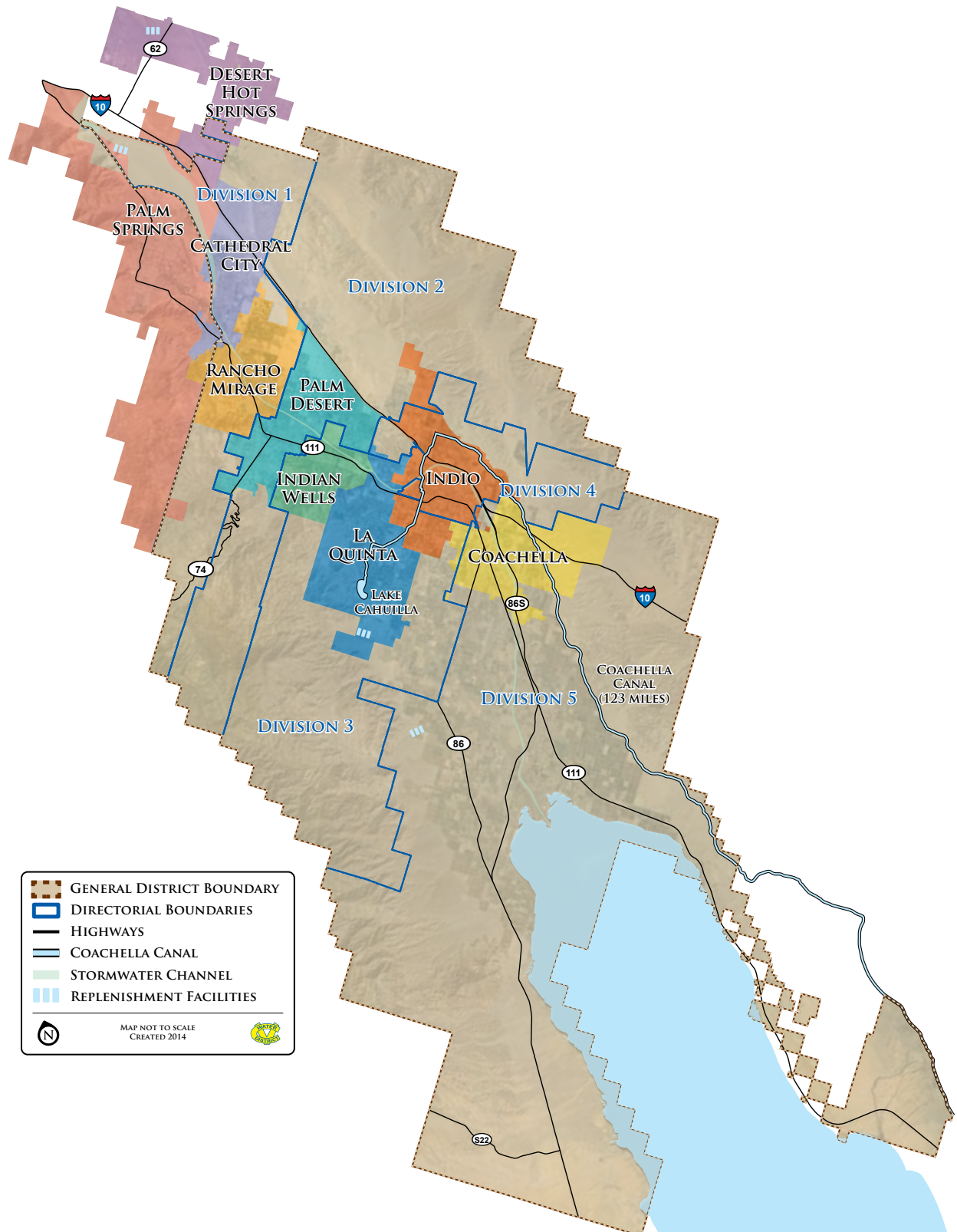
Previously, division boundaries were drawn to be nearly equal in acreage. As of June 3, 2014, new division boundaries were drawn to be equal in population, and take into consideration geography, cohesiveness, and communities of interest, among other criteria. A directional boundary map showing the boundaries is on the following page.

The Board is the policy-making body of the District and represents the interests of the division which they represent. By a majority vote, the Board may enact and enforce ordinances, and pass resolutions necessary for the operation of the District's business. The District plays a vital role in water resource management in Southern California and in the Lower Colorado River Basin.

The District must work collectively and effectively with state and federal agencies, numerous local jurisdictions, and other water purveyors to fulfill this role. Board members actively serve in leadership positions for several intergovernmental agencies and associations that further the interests of the District. Numerous policies are regulated by several state and federal agencies, including the State Water Resources Control Board (SWRCB), and the California Environmental Protection Agency (EPA). The Public Utilities Commission (PUC) does not regulate the District, since the District is a government agency and not a private company.

Board of Directors	Division Represented	Term Expiration
John Powell, Jr., President	Division 3	December 2018
Cástulo Estrada, Vice President	Division 5	December 2018
G. Patrick O'Dowd	Division 1	December 2018
Anthony Bianco	Division 2	December 2020
Peter Nelson	Division 4	December 2020

Coachella Valley Water District – Directorial Boundaries



Coachella Valley Water District is a Multifaceted Agency

The Coachella Valley Water District provides a variety of water-related utility services to a majority of the people in the Valley.

Domestic Water: The District provides drinking water to about 290,000 people in the Valley. All domestic water is supplied from one of the District's 93 active wells. To ensure water supplies remain available, the District implemented various initiatives, including, securing additional water resources, banking unused resources, water conservation programs, tiered rates, water-use restrictions, and recycling water. In fiscal 2018, CVWD invested over \$4.5 million in rebate and incentive programs that permanently reduce water use.

Sanitation: Coachella Valley Water District treats 6.3 billion gallons of wastewater each year and recycles more than 4.3 billion gallons of wastewater each year, subjecting it to an advanced multi-step process that filters out solids, organic materials, chemicals, and germs. The District currently owns and operates 1,129 miles of wastewater collection system piping. At two of the District's five wastewater reclamation plants (WRPs), the treated reclaimed or nonpotable water is then delivered to customers that use it to irrigate grass, landscapes, and fill lakes. Increasing the supply and use of recycled water is a key component of CVWD's long-range water management plans.

Nonpotable Water: The Valley is home to more than 120 golf courses. Unfortunately, the amount of wastewater that is recycled can't meet the year-round irrigation needs of the courses. To increase the available nonpotable water supply for golf courses and reduce their demand on the aquifer, in 2009, CVWD completed the Mid-Valley Pipeline project to bring Colorado River water to the District's largest wastewater reclamation plant in Palm Desert.

Currently, within CVWD boundaries there are 36 golf courses using all Colorado River water and 17.5 golf courses using a blend of recycled and Colorado River water for irrigation use. Plans are underway for an additional 40.5 users to switch from groundwater to nonpotable supplies in the future.

Nonpotable water services are provided by two different funds. Golf courses receiving strictly Colorado River water from the Mid-Valley pipeline and those receiving a blend of

Colorado River water and recycled water are customers of the Nonpotable Fund. Golf courses receiving Colorado River water strictly off of the Canal are customers of the Canal Fund.

Canal Water: The District provides water to irrigate approximately 76,428 acres of farmland in the Valley. The 123-mile Coachella Canal provides Colorado River water to local farmers, which has helped transform the Coachella Valley into California's third largest agricultural region. Although geographically the Valley is in the northwestern portion of the Sonoran Desert, irrigation allows widespread agriculture. Crop values exceeded \$627 million in 2017.

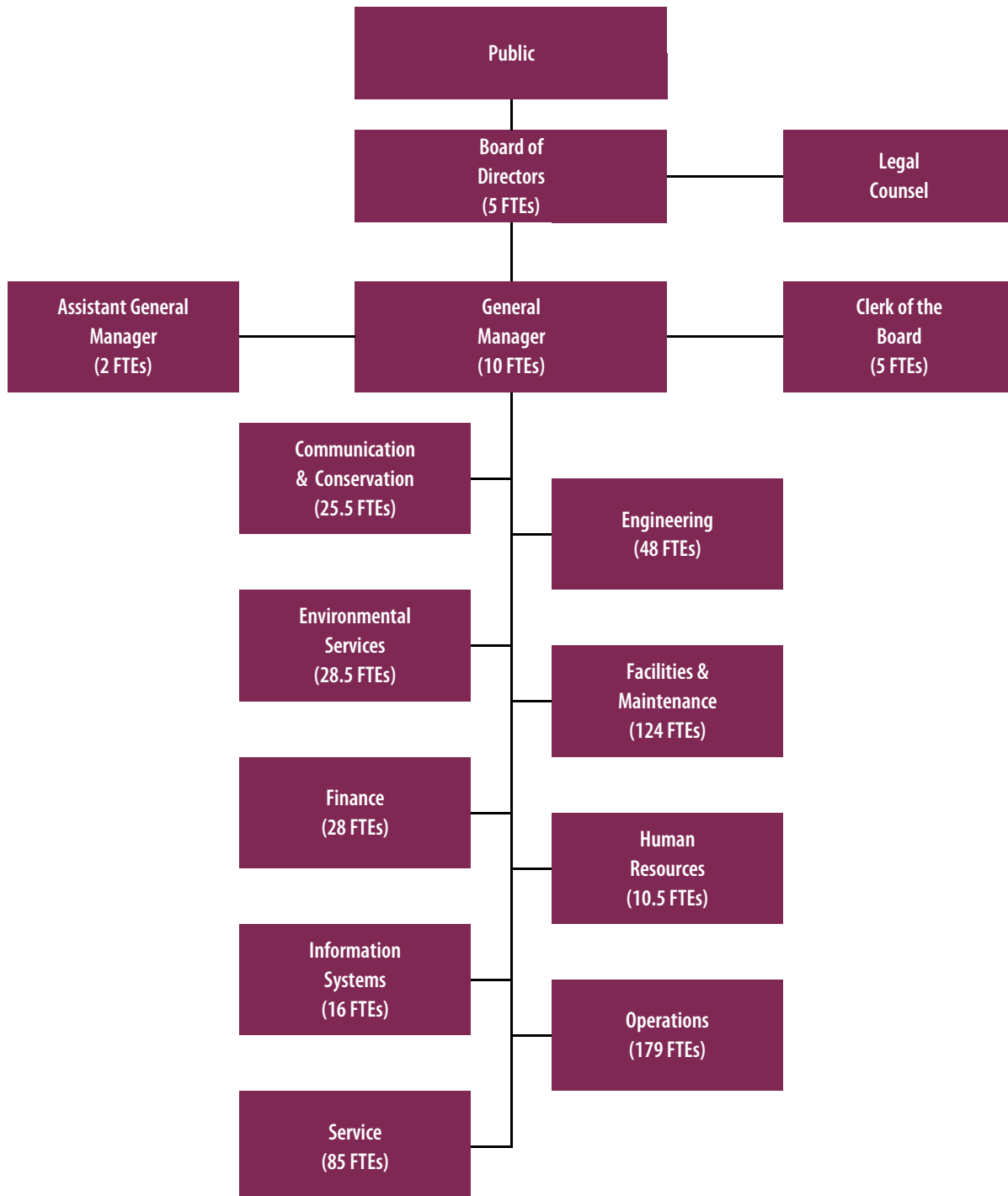
Canal water is also used on golf courses and to replenish the aquifer in the East Valley.

Stormwater: The Coachella Valley averages less than four inches of rain per year. However, the surrounding mountains are subject to much higher rainfall rates which can produce unpredictable, damaging, and even deadly flash flooding events throughout the Valley. CVWD is responsible for much of the region's stormwater protection, helping to prevent loss of life and extensive property damage. The District protects nearly 600 square miles from flooding. Within CVWD's boundaries, there are 16 stormwater protection channels. The entire system includes approximately 134 miles of channels built along the natural alignment of dry creeks that flow from the surrounding mountains into the Whitewater River.

Groundwater Replenishment: The District is committed to the long-term health of the aquifer which goes back to CVWD's formation in 1918 when one of its first priorities was to design facilities at Whitewater to capture the natural runoff from the mountains. All of the drinking water supplied by Coachella Valley Water District comes from the groundwater basin or aquifer. To alleviate groundwater overdraft, CVWD, along with Desert Water Agency (DWA), oversee three active groundwater replenishment facilities and percolate imported water back into the aquifer.

District Management

The General Manager and legal counsel are appointed by and report to the Board of Directors. The General Manager's administration consists of an Assistant General Manager, an Executive Assistant, a Clerk of the Board, Administrative Services, and nine departments: Communication & Conservation, Engineering, Environmental Services, Facilities & Maintenance, Finance, Human Resources, Information Systems, Operations, and Service. The organization chart below depicts the District's management along with the number of full-time employees (FTEs) in each department.



Accounting and Budgeting Structure



Grading for the new Groundwater Replenishment Facility in Palm Desert

Proprietary Fund Accounting

The District's financial reporting structure is fund-based. A fund is defined as a separate, self-balancing set of accounts, used to account for resources that are segregated for specific purposes in accordance with special regulations, restrictions, or limitations. All District funds are categorized as proprietary funds, which are used to account for a government's business-type activity. There are two types of proprietary funds – enterprise funds and internal service funds. Both fund types use the same Generally Accepted Accounting Principles (GAAP), similar to businesses in the private sector.

GAAP requires full accrual accounting. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the accounting period incurred. Both enterprise and internal service funds recover the full cost of providing services (including capital costs) through fees and other revenues, and charges on those who use their services.

CVWD reports Domestic Water, Canal Water, Sanitation, Stormwater, Nonpotable Water, and Replenishment activities in enterprise funds. Enterprise funds are intended to be entirely or predominantly supported from user charges or rates. Operations are accounted for in a manner to show a profit or loss, on a basis comparable with industries in the private sector. Occasionally, rate adjustments are needed to ensure that the funds maintain adequate cash balances to cover operating costs, debt service, and capital repairs and replacements.

The District reports Motorpool, Dental Self-Insurance, and Workers' Compensation as internal service funds. These funds are used to account for the financing of goods and services by one department to other departments or funds of the District. Internal service fund costs are allocated to the benefiting funds, in the form of fees or charges.

What is a Budget?

The fiscal 2019 budget is presented as a policy document, an operational tool, a financial planning tool, and a link to the Strategic Plan. In addition, it is also considered a link to the community. This document will be submitted to the Government Finance Officers Association (GFOA) for review and consideration for the Distinguished Budget Award, which the District has received annually since fiscal 2013. The budget includes the financial planning and legal authority to obligate District funds. Additionally, the budget provides significant policy direction from the Board to District staff.

The budget provides five functions:

1. A Policy Document

Decisions made within the budget reflect the general principles or plan that guide the actions taken for the future. As a policy document, the budget links desired goals and policy direction to the actual day-to-day activities of the District. The budget process affords an interesting and challenging opportunity to reassess plans, goals, and the means for accomplishing them.

2. An Operational Tool

The budget directs the operation of the District. Activities of each function or department have been formalized and described in the chapter Budget by Department. This process helps maintain an understanding of the various enterprises of the District, how they relate to each other and to the goals and policies of the District and the Board. In this effort, the budget addresses areas that may not be traditional budget document topics. These include policy issues, staffing levels, long-range planning, capital spending plans, and rate setting.

3. A Financial Planning Tool

Traditionally, the budget is a financial planning tool, but it is also a requirement. A balanced budget must be adopted and in place, prior to the expense of District funds on July 1. The budget provides the authority to spend District funds. The District's budget is adopted at the fund level so expenses may not exceed appropriations at that level. Revenues are estimated, along with available cash reserves to indicate funds available for spending. The departmental requests for appropriations comprise the disbursement side of the budget.

4. A Link to the Strategic Plan

The budget is the District's blueprint and the Strategic Plan is an integral part of that blueprint. The Strategic Plan lays out the direction the District is going and the budget is a link to getting there. The goals and initiatives that were developed as a part of the Strategic Plan, are linked to specific departments and are incorporated and reflected in their goals and budgets.

5. A Link with the Community

The budget provides a unique opportunity to allow and encourage public review of District operations. The document describes the activities of the District, the reason or cause for those activities, future implications, and the direct relationship to constituents.

How Does the Budget Compare to the Annual Financial Report?

The budgetary management of District funds is based on the "bottom line" and whether the expenses, including capital replacements, are supported by revenue. CVWD uses its reserve balances or "ending reserves", to evaluate its funds. This method works similarly to working capital and is the result of all transactions that affect assets and liabilities.

Some of the common differences between GAAP and the District's budgetary basis of accounting are as follows:

- Under the District's budgetary basis, the receipt of debt proceeds, capital outlays (including the capital improvement program) and debt service principal payments are reported as nonoperating revenues and expenses. Depreciation expense is not reported.
- The opposite is true under the GAAP basis of accounting: capital outlays are reflected as additions to assets on the balance sheet and depreciated over their useful lives. Debt proceeds are shown as a liability and principal expenses on debt service are reflected as a reduction of a liability.

- Investment earnings and property taxes are considered operating revenue under the budgetary basis and are nonoperating revenue under GAAP.
- Contributed assets and development fees are shown on the Statement of Revenues, Expenses, and Changes in Fund Net Position under GAAP. Under the budgetary basis, contributed assets are not recognized and only the use of restricted funds is shown as nonoperating revenue.
- Under the GAAP basis of accounting, changes in the fair value of investments are treated as adjustments to revenue. This is not the case under the budgetary basis of accounting.
- Reserves are generally defined as the difference between current assets and current liabilities under the budgetary basis. The net position in GAAP includes the difference between all assets and liabilities.
- The timing of revenue and expenses are the same under both GAAP and the budgetary basis of accounting. Revenues are recognized when earned and expenses are recognized when incurred.

Budget Planning and Preparation

Budget preparation usually starts in January. At that time, the groundwork for the upcoming year is laid out. Each department starts determining what their requirements are for the following fiscal year. Below is the budget calendar for fiscal 2019. Based upon those requirements, budget requests are submitted and reviewed for approval. One of the key foundations to an enterprise fund budget is a solid projection of reserves, revenues, and expenses.

Date	Budget Calendar Agenda Fiscal 2019
January 8, 2018	Capital Improvement Program (CIP) nomination forms available
February 5, 2018	East Whitewater & West Whitewater RAC CIP prioritization meeting
February 8, 2018	Equipment verification list to to departments for review
February 13, 2018	Budget Guide, Budget Forms, Payroll, and Expense Allocation Reports are available
February 13-14, 2018	Budget kick-off meeting with departments
February 13, 2018	Prioritize nomination forms for Replenishment Assessment Charges due
February 16, 2018	Equipment verification lists with any changes due to Fleet Manager
February 19, 2018	Draft of Replenishment Funds Capital Improvement Projects complete
February 20, 2018	Canal and Stormwater CIP prioritization meeting
February 21, 2018	Domestic Water and General District CIP prioritization meeting
February 22, 2018	Sanitation CIP prioritization meeting
February 28, 2018	New position requests, position reclassifications, and promotion requests due to Human Resources and Finance
February 28, 2018	Overtime, standby requests, and payroll allocations due to Finance
February 28, 2018	Fleet additions associated with additional personnel or additional requirements due
March 14, 2018	Expense allocations due to Budget Liaison
March 6, 2018	Prioritized project nomination forms for Domestic, Canal, Sanitation, Stormwater, and General District CIP due
March 14, 2018	All Budget worksheets and forms due to Budget Liaison
March 14, 2018	Fleet operation and maintenance charges due to Budget Liaison
March 21, 2018	Board Study Session on Replenishment Funds and Capital Improvement Projects
March 26, 2018	Joint Water Policy Advisory Committee Meeting
March 29, 2018	Draft Domestic, Canal, Sanitation, Stormwater, and General District Capital Improvement Projects complete
April 2, 2018	Capital Improvement Program Budget meeting with General Manager and Assistant General Manager
April 3-10, 2018	Budget meetings with General Manager and Assistant General Manager
April 16, 2018	Board Study Session to review Capital Improvement Program fiscal 2019 - 2023
May 1, 2018	Board Study Session to review additional personnel requests, proposed fiscal 2019 Motorpool, and debt financing considerations
May 8, 2018	Presented additional personnel requests for Fiscal 2019 to Board for approval
May 14, 2018	Board Study Session on CalPERS liability reduction options
May 22, 2018	Presented replenishment rates for Board approval
May 30, 2018	Board Study Session to review proposed Fiscal 2019 Operating Budget and Capital Improvement Budget
June 12, 2018	Fiscal 2019 Operating Budget and Capital Improvement Budget presented to the Board and approved
July 1, 2018	Fiscal 2019 Budget took effect

Proposition 218

The need for a rate increase can dictate the timing of the budget process. Proposition 218, officially titled the “Right to Vote on Taxes Act,” was approved by California voters in 1996. It amended the State Constitution, and established additional procedural requirements, and limitations on new and increased taxes, assessments, and property-related fees and charges.

For special districts such as CVWD, any fees or charges imposed on persons as an incident of property ownership (water commodity charges, service charges, canal irrigation water charges, sanitation fees, etc.) must comply with the requirements of this law. Specifically, the District must notify all affected property owners 45 days prior to a public hearing on any proposed rate increase. During that 45-day period, the property owner may choose to protest the increase by submitting a written form to that effect. The proposed fee or increase is prohibited, if written protests constitute a simple majority.

Substantive requirements of Proposition 218 include restrictions on expenses that may be included in the fee or rate. For example, revenues cannot exceed the costs required to provide the property related service, and revenues from the fee cannot be used for any purpose other than that for which it was imposed. These requirements suggest that an agency develop cost of service studies that document the costs for which their fees and rates are imposed, utilizing appropriate industry principles and guidelines.

Components of the Budget

There are three components of the budget:

1. Base Budget Approach

The base budget approach consists of budget proposals sufficient to maintain the operation of programs authorized in earlier years. Fiscal 2019 budget targets were established at fiscal 2018 base levels for all spending.

2. Capital Improvements

The budget includes authorized capital projects scheduled for design and/or construction, during fiscal 2019. The Board approves specific projects up to the funding approved in the budget. Budget amendments are considered if the total cost of the project is expected to exceed the original budget. The District’s fiscal 2019 Capital Improvement Budget is being funded primarily through rates, reserves, grants, reimbursements, and a State of California Drinking Water State Revolving Fund loan.

3. Supplemental Requests

Departments may request funding above the base budget amount in order to maintain current levels of service, to provide for the expansion of existing programs, or to enable the implementation of new services or programs. These are considered to be supplemental requests. All supplemental funding requests must be thoroughly described and include a concise justification that reflects consideration of reasonable alternatives, particularly if the request involves addition of full-time personnel.

Proposed and Adopted Budget

A proposed budget is ready for the General Manager’s review by May. The five-year forecast and projected reserves by fund are updated based on revenue projections and departmental budget requests. The tentative budget is

prepared and available for study sessions with the Board. Public Board study sessions are held during May, which focus on the details of individual funds. Public hearings for proposed rate increases, if any, normally occur in June.

The final budget is presented at a June Board meeting and normally adopted by July 1. The final budget is issued as a formal published document, as modified by the Board.

Staff will begin preparation of the fiscal 2020 Operating and Capital Improvement Budgets in January 2019. The budget calendar, board meeting dates, and agendas will be available for review online at www.cvwd.org.

Amending the Budget

Department directors are responsible for keeping expenses within budget allocations. Directors may exercise discretion in the administration of the budget to respond to changes in circumstances, by requesting budget amendments between line items within their department in the same fund.

Budget transfers between departments within the same fund, must be approved by both department directors. Any revisions that alter the total of a fund must be approved by the General Manager and the Board.

Budget Reporting and Monitoring

The Finance Department and the individual departments monitor the budget, using various reports and accounting controls.

Department directors are provided monthly financial reports to monitor and analyze their expenses in relation to their budget. In addition, consumptive revenue reports for the Domestic Water and Canal Water Funds are prepared and analyzed monthly. Formal financial reports and analysis comparing actual expenses and revenues against the budget, are generated by the Finance Department and presented to the Board on a quarterly basis.

Financial Policies and Guidelines



Construction of the new Critical Support Services Building in Palm Desert

Financial policies and guidelines are used to establish similar goals and targets for the District’s financial operation, allowing the Board and District officials to monitor how well the District is performing. Formal policies provide for a consistent approach to fiscal strategies, and set forth guidelines to measure financial performance and future budgetary programs.

General Financial Goals

- Ensure delivery of an adequate level of water-related services, by assuring reliance on ongoing resources and maintaining an adequate financial base.
- Ensure the District is in a position to respond to changes in the economy or new service requirements, without an undue amount of financial stress.
- Assure ratepayers and taxpayers that the District is well-managed financially.
- Adhere to the highest accounting and management policies as set by Government Finance Officers Association, Governmental Accounting Standards Board (GASB), and other professional standards for financial reporting and budgeting.

Cash and Investments Goals

- Maintain cash and investment programs in accordance with the Investment Policy, ensuring proper controls and safeguards are maintained.
- Manage District funds in a prudent and diligent manner, with an emphasis on safety of principal, liquidity, and financial return on principal, in that order.

Revenue Guidelines

- Revenues will not be dedicated for specific purposes, unless required by Board action, law, or GAAP.
- Unrestricted revenue will be deposited in the appropriate fund and appropriated by the budget process.
- Current revenues will fund current expenses.
- One-time revenues may be dedicated to one-time expenses or one-time use of funds.
- One-time revenues may be dedicated to funding reserve shortfalls.
- Enterprise user fees and charges will be examined on a cyclical basis, ensuring that they recover all direct and indirect costs of service, and must be approved by the Board.
- Programs financed with grant monies will be budgeted in separate projects within the appropriate enterprise fund.

Operating Management and Budget Guidelines

- Revenue and expense forecasts will be prepared to evaluate the District's ability to absorb operating costs due to changes in the economy, service demands, and capital improvements. The forecast will be updated quarterly and focus on a five-year outlook.
- Alternative means of service delivery will be evaluated, ensuring that quality services are provided to our ratepayers at the most competitive and economical cost.
- The budget process is intended to weigh all requests for resources, within expected fiscal constraints. Requests made outside the budget process are discouraged. Appropriations requested after adoption of the original budget will be approved only after considering the elasticity of revenues. All additional appropriations require Board approval.
- Budget development will use strategic multi-year fiscal planning, conservative revenue forecasts, and modified zero-based expense analysis.
- Based on the District's definition of a balanced budget, current operating expenses will be paid from current revenues and reserves carried forward from the prior year. The District will avoid budgetary and accounting practices that balance the current budget at the expense of future budgets.
- Additional personnel will only be requested to meet program initiatives and policy directives after service needs have been thoroughly examined, and it has been determined that additional staffing will result in increased revenue, enhanced operating efficiencies, or service levels. Personnel cost reductions will be achieved through attrition, to the extent feasible.

Capital Management and Replacement Guidelines

- A multi-year replacement schedule of rolling stock and other equipment has been developed and is updated based upon the District's projection of future replacement needs. The operating budget will provide for adequate maintenance of the District's capital and equipment. Replacement funds of rolling stock and other equipment are accumulated in the unrestricted reserves of each enterprise fund.
- A five-year Capital Improvement Plan (CIP) has been developed and will be updated annually, including anticipated funding sources. The CIP should include adequate funding to support repair and replacement of deteriorating infrastructure, and avoidance of a significant unfunded liability.
- Future operating, maintenance, and replacement costs associated with new capital improvements, will be forecasted and included in the operating budget.
- Capital project requests will include a fiscal impact statement, disclosing the expected operating impact of the project.

Reserve Policy

Goal

The goal of maintaining adequate reserves is to ensure that there are appropriate levels of working capital in the District's enterprise funds to mitigate current and future risks (revenue shortfalls and unanticipated expenses), to ensure stable services and fees, and to obtain and maintain a credit rating of AA or better.

Properly designed policies send a positive signal to the community of ratepayers, bondholders, rating agencies, and regulatory agencies that the Board is committed to the District's long-term financial health and viability. Prudent financial management and best practices dictate that the District maintain appropriate reserves for emergency use, capital projects, obligations accruing on a current basis that will be paid in the future, and those required as a result of legal or external requirements.

Objectives

- To establish prudent fiscal reserve policies to ensure strong fiscal management to guide future District decisions.
- To build and maintain reserves that lead to an AA rating or better. This action will provide the District with resources to help stabilize the District's finances, and position it to absorb economic downturns or large-scale emergencies.
- To help smooth rates from year-to-year, and to promote equity over the years to ratepayers.
- To provide funding for current and future replacement of existing assets as they reach the end of their useful lives.
- To assist the District in meeting its short-term and long-term obligations and to ensure that the District maintains a credit rating of AA or better.

Definitions

Reserves are defined as the amount of cash and investments in that fund, plus the accounts receivable, less the accounts payable and less amounts due to others in the fund. This methodology indicates the relatively liquid portion of total enterprise fund capital, which constitutes a margin or buffer for meeting obligations.

- 1. Designated Reserves:** Designated reserves are reserves that are established and set aside to be used only for a specific, designated purpose (classified as unrestricted on the audited financial statements).
- 2. Restricted Reserves:** Restricted reserves are reserves that are restricted by an outside source, such as by statute, court, or contract (classified as restricted on the audited financial statements).
- 3. Undesignated Reserves:** It is assumed that all reserves will be Designated or Restricted, and therefore, there will be no undesignated reserves per policy. (These are classified as unrestricted on the audited financial statements).

NOTE: The District's audited financial statements segregate Net Position, which includes the effects of all assets and liabilities, some of which are nonspendable, not liquid, or have not been included in the current year budget. Therefore, the definition of Reserves is different than the Net Position, and the two terms should not be used synonymously.

Designated Reserves

Maintaining adequate reserves is important for providing reliable service to customers, financing long-term capital projects, and the funding of emergencies, should they arise. In this context, the following designated reserve categories represent the minimum reserve targets for each fund. However, the District’s goal is to have 365 days of cash on hand Districtwide to ensure sufficient funding available to meet its operating, capital, and debt service obligations. Days of cash on hand is determined by the amount of unrestricted reserves on hand divided by one day’s worth of operating and maintenance expenses (excluding depreciation).

- 1. Operating Reserves** cover operating costs for an established period of time. This reserve will ensure continuity of service regardless of cash flow, and is considered working capital to be used to fund current expenses as needed. Operating reserves shall be maintained at 90 days, or 25% of current year budgeted operating expenses (less depreciation and capital outlay). This balance will fluctuate from month to month. However, the year-end objective is to achieve this ending balance. For the Nonpotable Fund, maintain operating reserves at 30 days, or 8% of current year budgeted operating expenses (less depreciation and capital outlay).
- 2. Rate Stabilization:** This reserve covers the smoothing of rates in the event of short to mid-term rate revenue loss, and/or higher than anticipated operating expenses that cannot be supported by normal revenues. Rate Stabilization reserves can be used to balance the budget if revenues are projected to be 10% less than prior year actual rate revenues, or if operating expenses are projected to be 10% more than prior year actual expenses. The reserve shall be established at the higher of 10% of current year budgeted rate revenues or 10% of total budgeted operating expenses less depreciation, capital outlay, and State Water Project expense. For Sanitation establish the reserve at 10% of the nonresidential rate revenues.
- 3. Capital Improvement Program (CIP):** Ongoing replacement of capital facilities and additional investment in capital is essential to maintain the desired level of service for District customers and to meet increased demand upon services. This reserve is designated for funding the capital improvement program and unforeseen capital projects. It is designed to stabilize funding for capital by accumulated “pay-as-you-go” reserves. This reserve can also be used in concurrence with outside funding sources. Reserve shall be set at one year of depreciation for all funds except Stormwater and Canal. Canal will be established at 2% of gross capital asset value, and Stormwater will be established at 70% of the average five-year CIP.
- 4. Emergency Reserve:** These reserves help to ensure continued service to the District’s customers and service areas for events which are impossible to anticipate or budget. The ability of the District to quickly restore facilities and services is critical to the public health and safety of our residents. This fund will assist in covering emergency cash needs for any reason. Domestic, Nonpotable, Sanitation, West Replenishment, and East Replenishment reserves are set at one percent (1.0%) of the net capital assets. Reserves for the Canal Water Fund are set at one percent (1.0%) of the replacement cost of fixed assets. Stormwater Fund reserves are set at \$17.6 million, per previous Board policy.
- 5. Vehicle Replacement Reserve:** The Vehicle Replacement reserve provides capital replacement funding as the District’s rolling stock is depreciated over its useful life. The target amount should be set at the average of the five-year CIP for replacement vehicles for that fund.
- 6. Other Special Purpose Reserves:** The Board may, at its discretion, set aside reserves for a special project or purchase.



Restricted Reserves

1. Reserves for Future Capital Commitments: These reserves are established by Board Ordinances to ensure that specific fees are set aside to provide for future purchases of imported water and expansion of the domestic water and sanitation systems. The following fees are in place at this time:

- a. Water System Backup Facilities Charge (WSBFC)
- b. Sanitation Capacity Charge (SCC)
- c. Supplemental Water Supply Charge (SWSC)

Interest earned in this reserve shall be credited to this reserve. There should be a positive balance in each of these funds at all times, unless there is a specific repayment plan identified.

2. Reserve for Debt Service: Most debt issuances require the creation of a separately held reserve equal to one year of debt service, to be held by the trustee (if required), and used in the last year of the debt repayment. Debt service reserves will be established for each fund as it issues debt, in accordance with the issuer's requirements. The Domestic Water Fund has a debt service reserve in accordance with the Drinking Water State Revolving Fund loan. Debt service reserves are presently established for Assessment Districts and Community Facility Districts, which are not liabilities of the District.

3. State Water Project (SWP): The District collects funds through the property tax rolls to make payments to the State Water Project. These payments will vary depending upon the availability and supply provided to the District in each year, however, the revenues collected remain fairly steady.

District engineers have done a thorough analysis on past hydrology patterns, and based on the expenses for the wettest five-year period (2002-2007), they have determined that the reserve should be \$26.4 million. This reserve is divided between the West Replenishment Fund and the Mission Creek Replenishment Fund, based on an annual analysis of production in the basins.

Reserve Procedures

- The Finance Department will perform a biennial reserve review to be submitted to the General Manager and Board of Directors.
- In addition, a reserve review will be required when a major change in conditions threatens the reserve levels established by this policy.
- The biennial review determines if the funding levels are still appropriate and aligned with Board goals and objectives.
- During the annual budget process, staff will recommend approval of the one-year capital improvement budget. If adequate funding is not available, the CIP reserve funds will be used.
- If the balance in any reserve category falls below the minimum targeted reserve level for two consecutive years, the Board of Directors should adopt a budget that includes a plan to build the reserves back to the minimum targeted level over the following two years.

Strategic Plan

What is a Strategic Plan?

A Strategic Plan is a tool which defines what is critical to the District’s success and the initiatives necessary to guide the District toward achievement of its goals. The District’s commitment to this plan puts the CVWD team on the same page and helps focus efforts and energy toward the same objectives. It allows the organization to deliver on its mission: to meet the water-related needs of the people of the Coachella Valley through dedicated employees, providing high quality water at a reasonable cost.

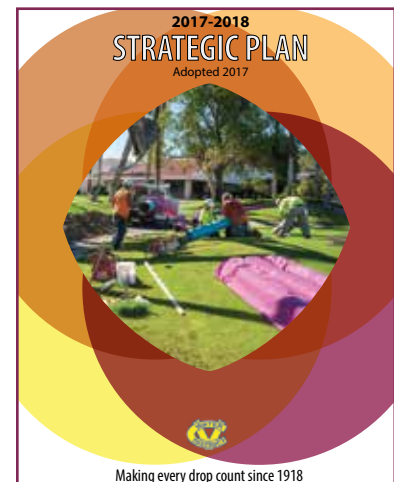
Goals

The District has identified and committed to broad goals designed to move the District forward in executing its mission. The strategic goals were developed within the framework of Effective Utility Management (EUM).

EUM was developed by the major water and wastewater organizations in the United States. Effective Utility Management helps water and wastewater utilities select priorities for improvement, based on the unique needs of its community. The framework addresses operations, infrastructure, customer satisfaction, community welfare, natural resource stewardship, and financial performance.

The strategic goals the District has selected to focus on cover six thematic areas:

1. Employee/Workforce Development
2. Financial Stability
3. Water Supply Sustainability
4. Exceptional Customer Service
5. Water Quality and Environmental Leadership
6. Infrastructure Investment and Management



Latest Strategic Plan Guide

Award

In October 2016, the Association of Metropolitan Water Agencies (AMWA) awarded Coachella Valley Water District with its prestigious Gold Award for Exceptional Utility Performance. AMWA issues the awards to water agencies providing domestic water/sanitation services to their customers that have demonstrated they are using what are known as the Attributes of Effective Utility Management. Those attributes are: product quality, customer satisfaction, employee and leadership development, operational optimization, financial viability, infrastructure stability, operational resiliency, community sustainability, water resource adequacy and stakeholder understanding and support. CVWD is one of only five agencies nationwide that met the stringent requirements necessary to receive the AMWA award for 2016.

Initiatives

In June 2018, the Board of Directors adopted the District’s fifth consecutive Strategic Plan. Eighteen initiatives, or project plans, have been targeted for completion in fiscal 2019. The initiatives are a result of one strategic planning workshop with Board members and 50 members of the District’s staff.

The project plans include target completion dates, quarterly milestones, the project coordinator (or project manager), the project sponsor (typically a department head who will help champion the project) and measurements of success. More information about how the initiatives are linked to the budget can be found throughout the Budget Book.

The following tables list the District’s strategic goals and initiatives being implemented in fiscal 2019, including the department(s) responsible for them. To read a copy of this plan, please visit the District website at www.cvwd.org.

Strategic Goal	Sponsor	Objective		Initiative	Benefit
1. Employee Workforce Development	Human Resources	Succession Planning and Knowledge Management	1	Develop and implement Comprehensive Supervisor Safety Management Training Program	Ensures that supervisors can promote safety culture within CVWD
			2	Develop knowledge transfer program for Succession Planning	Includes employee life cycle process, create legacy institute for employees within five years of retirement, create standardized Q & A for positions, etc.
2. Financial Stability	Finance	Maintain Organizational Fiscal Health	3	Reduce CalPERS unfunded liability	Potentially saves ratepayers \$16 to \$106 million depending on payment option
			4	Establish Grant Funding Management Plan	Develop guidelines and criteria for CVWD's approach towards grant-funding opportunities, use external funding for otherwise unfunded projects
3. Water Supply Sustainability	Administration / Engineering / Environmental Services	Eliminate Coachella Valley Aquifer Overdraft	5	Eliminate Coachella Valley aquifer overdraft by implementing strategies in the 2015 Coachella Valley Water District Imported Water Use Strategy Report	Ensures that projects to beneficially use imported water supplies are implemented on a timely basis, meet goals of Coachella Valley Water Management Plan
		Update & comply with Water Management Plan	6	Install wells to expand groundwater monitoring at Thomas E. Levy Groundwater Replenishment Facility	Drill and equip up to six shallow monitoring wells above the regional clay aquitard surrounding the Thomas E. Levy Groundwater Facility, for expanded monitoring of the shallow aquifer to optimize groundwater replenishment within the East Whitewater River Subbasin Area of Benefit
		Protect water supply & optimize usage	7	Feasibility study of developing cost effective projects for storage of Colorado River water	Conduct feasibility study for off-stream storage for Colorado River water in Coachella Canal (allows operational flexibility & more efficient canal water use)
			8	Implement Oasis Expansion Project, Phase 1	Construct Oasis Reservoir to replace Oasis Tower; reservoir construction will not depend on other Oasis Project phases

Strategic Goal	Sponsor	Objective		Initiative	Benefit
4. Exceptional Customer Service	Information Systems / Operations / Service	Optimize Customer Experience	9	Implement Advanced Metering Infrastructure (AMI) pilot metering project	Research and perform feasibility study on AMI, implement pilot metering project by 6/30/19; funded in part by customer
			10	Develop plan to address needs and replacement of canal water ordering and billing process	Conduct needs assessment for canal ordering and billing system & create implementation plan by 6/30/19
5. Water Quality & Environmental Leadership	Environmental Services / Operations	Comply with Water Quality Regulations	11	Evaluate and recommend information management systems for effective water operator monitoring and decision making	Evaluate available Information Management Systems (IMS) to provide a broader operator user interface to achieve water quality objectives
			12	Execute workplan to prepare the Wastewater Reclamation Plant (WRP) 10 Groundwater Evaluation Technical Report	Execute workplan to comply with Special Provision F of Board Order R7-2018-001, to develop a Technical Report evaluating nitrate and total dissolved solids (TDS) impacts near the WRP 10 facility
		Perform effective Environmental Resource Management	13	Complete Feasibility Study for Water Treatment Plant Waste Brine Disposal Improvement Project	Use available solar energy to evaporate brine discharge for drying, instead of hauliwaste for ocean disposal
		Optimize Energy Use	14	Complete energy audits for WRP Nos. 4 & 7, and develop plans to implement audit recommendations	Using WRP 10 energy audit as a model, conduct similar audits for WRPs 4 & 7
6. Infrastructure Investment and Management	Engineering	Protect other physical assets	15	Complete improvements within Coachella Valley Stormwater Channel from Avenue 54 to Thermal Drop	Increase stormwater channel flows in this reach to 100-year flood capacity, which will reduce flood hazard risk in community
			16	Implement findings of Well Maintenance Prioritization Plan	Rehabilitation allows higher flows and longer use life for CVWD's 94 wells; start by rehab of five worst wells
			17	Develop asbestos cement pipe replacement strategy	Master plan for replacing all asbestos cement pipes within CVWD's service area through inventory of sizes, leak history, failure risks, etc.
			18	Design Avenue 66 transmission main to provide redundancy and reliability to Eastern Coachella Valley	Project provides water quality & operational benefits; investigate funding strategy (grants)

Debt Management

California Government Code provides for a legal debt limit of 15% of gross assessed valuation. However, this provision was enacted when assessed valuation was based upon 25% of market value. Effective fiscal year 1982, each parcel was assessed at 100% of market value, as of the most recent change in ownership for that parcel.

The calculated legal debt limit is \$2,215,631 as of June 30, 2017, and the District currently has no outstanding bonds chargeable to the limit. No revenue bond issuances are budgeted for fiscal 2019.

CVWD executed a \$26.7 million Drinking Water State Revolving Fund (SRF) loan with the State Water Resources Control Board to fund the construction of the Transmission Main, Phase 2 - Highway 86 project. The loan carries a 1.8% fixed interest rate for a term of 30 years. Completion of construction is December 20, 2020. Interest will be paid semi-annually until one year after completion of construction. Post construction completion, payment for both principal and interest will be due semi-annually. Contingent upon the District's performance under this agreement, the State Water Board agrees to forgive up to \$5 million of the principal amount.

Prior to fiscal 2018, CVWD funded all of its capital projects on a pay-as-you-go basis, choosing to use cash instead of borrowing due to sufficient revenues and reserves. The District's goal when issuing debt is to respond to the infrastructure and capital project needs of its customers, while ensuring that debt is issued and managed prudently, in order to maintain a sound fiscal position.

There are two interfund loans reflected on the debt service line item of the budget tables: from the Sanitation Fund to the Nonpotable Water Fund; and from the Domestic Water Fund to the East Whitewater Replenishment Fund.

The interfund loans are summarized in the table below.

	East Whitewater Replenishment Fund	Nonpotable Water Fund
Loan From	Domestic Water Fund	Sanitation Fund
Loan Date	6/25/2013	4/24/2012
Original Amount	60,285,179	2,234,020
Remaining Principal	34,153,880	1,615,917
Term (years)	15 ¹	20
Interest Rate	Variable ²	Variable ²
Number of Payments	180 ³	240
Retirement Date	6/30/2028 ⁴	4/30/2032
Purpose of Loan	Construction of the Thomas E. Levy Replenishment Facility	Construction of connection from Mid-Valley pipeline

¹ Original loan term

² CVWD's average monthly return on investment, plus a 10% premium on the calculated interest rate

³ Original number of payments; accelerated payments are budgeted for fiscal 2019 through 2021

⁴ Original retirement date; due to accelerated payments, the loan is scheduled to be repaid in 2021

All Funds Summary



The District reports its activities as proprietary funds. Proprietary funds are used to account for a government’s business-type activities, which recognize revenues and expenses on the accrual basis in accordance with Generally Accepted Accounting Principles (GAAP), similar to businesses in the private sector.

The adopted budget for each proprietary fund does not include depreciation, but includes capital acquisitions and debt service payments, which impact cash flows.

CVWD uses two types of proprietary funds to account for its activities, each of which is considered a separate accounting entity with a separate set of self-balancing accounts. All funds are accounted for as Enterprise Funds with the exception of Motorpool, Workers’

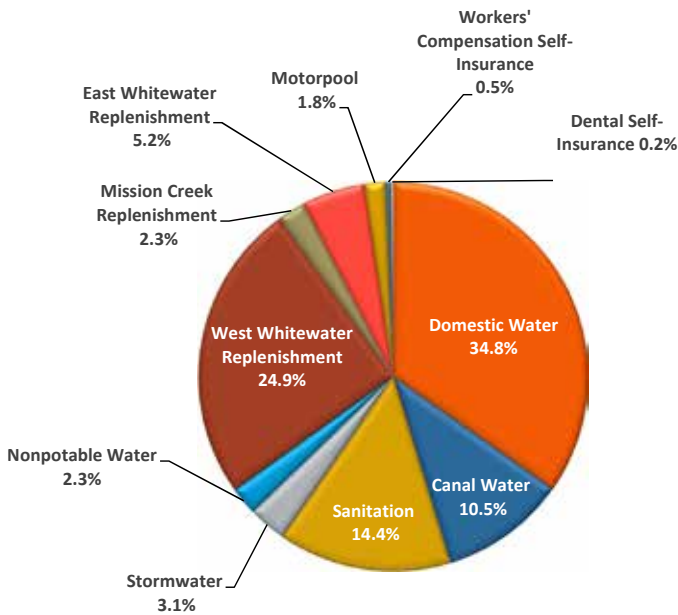
Compensation Self-Insurance, and Dental Self-Insurance, which are accounted for as Internal Service Funds.

Changes that occur in the operating budget from year to year are generally incremental. Therefore, District officials can draw on recent budget experiences when reviewing the following year’s budget requests.

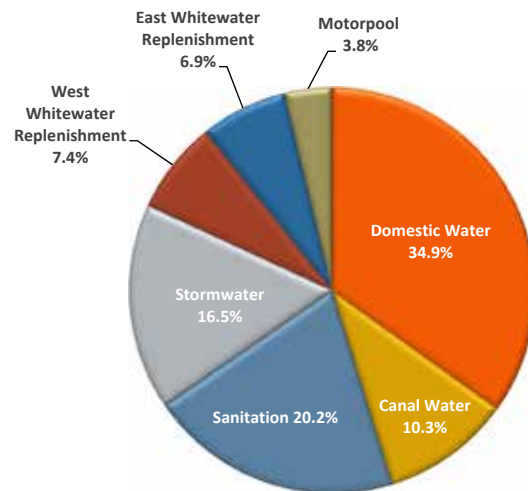
Capital projects or acquisitions requested in one year often differ from year to year. This is because many capital assets have long useful lives and do not need to be replaced frequently. To compensate for this variable, the operating and capital improvement budgets are presented separately.

The pie charts below depict the fiscal 2019 operating and debt service budgets by fund, and the capital improvement budget by fund.

Operating and Debt Service Budget by Fund
\$288,669,000



Capital Improvement Budget by Fund
\$121,247,000



The Total Expenses by Fund summary below illustrates the total operating, debt service, and capital improvement budgets by fund for fiscal 2018 and fiscal 2019, actual expenses by fund for fiscal 2017, projected expenses by fund for fiscal 2018, and the change in budget from fiscal 2018 to fiscal 2019. Total expenses increased by \$39.2 million, or 10.6% from the fiscal 2018 budget.

Total Expenses by Fund	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Operating and Debt Service						
Domestic Water	72,479,000	87,637,000	85,472,000	100,420,000	12,783,000	14.6
Canal Water	21,533,000	27,321,000	24,841,000	30,201,000	2,880,000	10.5
Sanitation	29,539,000	32,882,000	30,540,000	41,613,000	8,731,000	26.6
Stormwater	7,169,000	7,447,000	6,699,000	9,019,000	1,572,000	21.1
Nonpotable Water	2,371,000	4,774,000	4,858,000	6,692,000	1,918,000	40.2
West Whitewater Replenishment	71,548,000	79,535,000	78,639,000	72,015,000	(7,520,000)	(9.5)
Mission Creek Replenishment	2,750,000	7,289,000	7,811,000	6,695,000	(594,000)	(8.1)
East Whitewater Replenishment	13,821,000	13,139,000	12,820,000	15,059,000	1,920,000	14.6
Motorpool	3,745,000	4,443,000	4,040,000	5,135,000	692,000	15.6
Workers' Compensation Self-Insurance	678,000	964,000	736,000	1,381,000	417,000	43.3
Dental Self-Insurance	414,000	425,000	400,000	439,000	14,000	3.3
Total Operating and Debt Service	226,047,000	265,856,000	256,856,000	288,669,000	22,813,000	8.6%
Capital Improvement Projects						
Domestic Water	23,541,000	39,962,000	29,536,000	42,246,000	2,284,000	5.7
Canal Water	6,585,000	12,561,000	4,318,000	12,544,000	(17,000)	(0.1)
Sanitation	13,091,000	19,457,000	18,167,000	24,512,000	5,055,000	26.0
Stormwater	9,443,000	15,612,000	8,626,000	20,001,000	4,389,000	28.1
Nonpotable Water	-	-	-	-	-	-
West Whitewater Replenishment	799,000	5,815,000	6,083,000	8,999,000	3,184,000	54.8
East Whitewater Replenishment	1,028,000	6,585,000	1,129,000	8,357,000	1,772,000	26.9
Motorpool	3,933,000	4,842,000	2,196,000	4,588,000	(254,000)	(5.2)
Total Capital Improvement	58,420,000	104,834,000	70,055,000	121,247,000	16,413,000	15.7%
Total Budget	284,467,000	370,690,000	326,911,000	409,916,000	39,226,000	10.6%

2019 All Funds Summary

The following tables show Districtwide revenues by source and expenses by object.

Total Revenues by Source	Actual	Budget	Projected	Budget	Budget	%
	FY 2017	FY 2018	FY 2018	FY 2019	Change	Change
Water Sales	72,028,000	74,405,000	75,822,000	78,571,000	4,166,000	5.6
Availability Charges	2,599,000	2,300,000	2,244,000	2,577,000	277,000	12.0
Sanitation Service Charges	39,073,000	38,585,000	39,240,000	39,260,000	675,000	1.7
Service Charges	14,072,000	14,134,000	14,000,000	14,205,000	71,000	0.5
Surcharges	881,000	949,000	900,000	996,000	47,000	5.0
Replenishment Charges	22,906,000	22,507,000	23,390,000	23,402,000	895,000	4.0
Property Taxes - General	36,064,000	36,229,000	36,757,000	37,342,000	1,113,000	3.1
Property Taxes - SWP	60,692,000	60,489,000	63,000,000	66,311,000	5,822,000	9.6
Charges for Services	11,509,000	10,353,000	11,687,000	11,410,000	1,057,000	10.2
Investment Income	6,056,000	5,876,000	5,938,000	6,512,000	636,000	10.8
Grants and Reimbursements	2,206,000	4,950,000	2,457,000	7,431,000	2,481,000	50.1
Restricted Revenues	12,726,000	10,605,000	12,300,000	8,143,000	(2,462,000)	(23.2)
Interfund Revenues	4,558,000	11,940,000	11,940,000	9,124,000	(2,816,000)	(23.6)
Loan Proceeds	-	-	-	11,700,000	11,700,000	-
Other Revenues ¹	21,359,000	1,215,000	3,610,000	1,165,000	(50,000)	(4.1)
Use of Unrestricted Reserves	(22,262,000)	76,153,000	23,626,000	91,767,000	15,614,000	20.5
Total Revenues by Source	284,467,000	370,690,000	326,911,000	409,916,000	39,226,000	10.6%

¹ Intergovernmental Revenue, Effluent Disposal Revenue, Insurance/Settlement Proceeds, and Other Revenues

Total Expenses by Object	Actual	Budget	Projected	Budget	Budget	%
	FY 2017	FY 2018	FY 2018	FY 2019	Change	Change
Salaries & Benefits ¹	62,965,000	67,863,000	61,635,000	71,995,000	4,132,000	6.1
Supplies & Services	46,696,000	59,435,000	57,380,000	63,003,000	3,568,000	6.0
Utilities	15,098,000	15,022,000	15,605,000	16,068,000	1,046,000	7.0
Replenishment Charges	10,560,000	11,808,000	12,450,000	12,521,000	713,000	6.0
Water Purchases	77,262,000	90,839,000	89,276,000	83,139,000	(7,700,000)	(8.5)
QSA Mitigation Payments	7,804,000	6,895,000	6,895,000	9,232,000	2,337,000	33.9
Effluent Disposal Fee	466,000	600,000	475,000	550,000	(50,000)	(8.3)
Capital Outlay	638,000	1,454,000	1,200,000	2,979,000	1,525,000	104.9
Debt Service - Interfund	4,558,000	11,940,000	11,940,000	9,124,000	(2,816,000)	(23.6)
Debt Service - Other	-	-	-	58,000	58,000	-
CalPERS Liability Buy-down	-	-	-	20,000,000	20,000,000	-
Capital Improvement Projects	58,420,000	104,834,000	70,055,000	121,247,000	16,413,000	15.7
Total Expenses by Object	284,467,000	370,690,000	326,911,000	409,916,000	39,226,000	10.6%

¹ Net of capitalized labor

Consolidated Statement of Revenues, Expenses and Changes in Reserves

The All Funds Summary of Revenues, Expenses, and Changes in Reserves illustrates the change in the District's total financial condition between fiscal 2017, budgeted and projected fiscal 2018, and the adopted fiscal 2019 budget. Overall, revenues are increasing 5.5%, mostly as a result of increases in availability charges in the Canal Fund, and State Water Project property taxes. Districtwide expenses are increasing 2.2%, mostly due to increases in salaries & benefits, replenishment charges, water purchases, and capital outlay. More details on specific increases are discussed in the following sections of this chapter.

All Fund Summary

Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Water Sales	72,028,000	74,405,000	75,822,000	78,571,000	4,166,000	5.6
Availability Charges	2,599,000	2,300,000	2,244,000	2,577,000	277,000	12.0
Sanitation Service Charges	39,073,000	38,585,000	39,240,000	39,260,000	675,000	1.7
Service Charges	14,072,000	14,134,000	14,000,000	14,205,000	71,000	0.5
Surcharges	881,000	949,000	900,000	996,000	47,000	5.0
Replenishment Charges	22,906,000	22,507,000	23,390,000	23,402,000	895,000	4.0
Property Taxes - General	36,064,000	36,229,000	36,757,000	37,342,000	1,113,000	3.1
Property Taxes - SWP	60,692,000	60,489,000	63,000,000	66,311,000	5,822,000	9.6
Charges for Services	11,509,000	10,353,000	11,687,000	11,410,000	1,057,000	10.2
Intergovernmental Revenue	693,000	615,000	2,113,000	615,000	-	-
Effluent Disposal Revenue	466,000	600,000	515,000	550,000	(50,000)	(8.3)
Investment Income	6,056,000	5,876,000	5,938,000	6,512,000	636,000	10.8
Other Revenue	-	-	19,000	-	-	-
Total Revenues	267,039,000	267,042,000	275,625,000	281,751,000	14,709,000	5.5%
Expenses						
Salaries & Benefits (net of capitalized labor)	62,965,000	67,863,000	61,635,000	71,995,000	4,132,000	6.1
Supplies & Services	46,696,000	59,435,000	57,380,000	63,003,000	3,568,000	6.0
Utilities	15,098,000	15,022,000	15,605,000	16,068,000	1,046,000	7.0
Replenishment Charges	10,560,000	11,808,000	12,450,000	12,521,000	713,000	6.0
Water Purchases	77,262,000	90,839,000	89,276,000	83,139,000	(7,700,000)	(8.5)
QSA Mitigation Payments	7,804,000	6,895,000	6,895,000	9,232,000	2,337,000	33.9
Effluent Disposal Fee	466,000	600,000	475,000	550,000	(50,000)	(8.3)
Capital Outlay	638,000	1,454,000	1,200,000	2,979,000	1,525,000	104.9
Total Expenses	221,489,000	253,916,000	244,916,000	259,487,000	5,571,000	2.2%
Operating Income (Loss)	45,550,000	13,126,000	30,709,000	22,264,000	9,138,000	69.6%
Nonoperating Revenues (Expenses)						
Debt Service - Interfund	(4,558,000)	(11,940,000)	(11,940,000)	(9,124,000)	2,816,000	23.6
Interfund Revenues	4,558,000	11,940,000	11,940,000	9,124,000	(2,816,000)	(23.6)
Debt Service	-	-	-	(58,000)	(58,000)	-
Loan Proceeds	-	-	-	11,700,000	11,700,000	-
Capital Improvement Program	(58,420,000)	(104,834,000)	(70,055,000)	(121,247,000)	(16,413,000)	(15.7)
Capital Improvement Reimbursements	829,000	2,000,000	2,557,000	-	(2,000,000)	(100.0)
Use of Restricted Funds	12,726,000	10,605,000	12,300,000	8,143,000	(2,462,000)	(23.2)
Insurance/Settlement Proceeds	4,668,000	-	681,000	-	-	-
CalPERS Liability Buy-down	-	-	-	(20,000,000)	(20,000,000)	-
Grant Revenue	387,000	1,500,000	250,000	890,000	(610,000)	(40.7)
Capital Grant Revenue	990,000	1,450,000	(350,000)	6,541,000	5,091,000	351.1
Other Revenue (Expenses)	15,532,000	-	282,000	-	-	-
Total Nonoperating Revenues (Expenses)	(23,288,000)	(89,279,000)	(54,335,000)	(114,031,000)	(24,752,000)	(27.7%)
Increase (Decrease) in Cash Flow	22,262,000	(76,153,000)	(23,626,000)	(91,767,000)	(15,614,000)	(20.5)
Beginning Reserves	449,474,000	471,736,000	471,736,000	448,974,000	(22,762,000)	(4.83)
Transfer From/(To) Other Funds	-	864,000	864,000	3,536,000	2,672,000	616.0
Ending Reserves	471,736,000	396,447,000	448,974,000	360,743,000	(35,704,000)	(9.0%)

Property Taxes

Property taxes are an ad valorem (value-based) tax imposed on real property and tangible personal property. Proposition 13, passed in 1978, limits property tax to a maximum 1% of assessed value, not including voter-approved rates for bond issues and other special purposes. The assessed value of property is capped at the 1975-76 base year, plus a maximum of 2% increase per year. Property that declines in value may be reassessed at the lower market value. Upon change of ownership, properties are reassessed to current full value. Property tax revenue is collected by the county and allocated according to state law among cities, counties, school districts, and special districts.

In fiscal 2019, the District will receive approximately \$37.3 million in general property tax revenue. Some of this revenue is earmarked for tax levies that existed prior to Proposition 13. Currently, the District has two: Stormwater and Improvement District 1 (ID 1). The Stormwater tax levy dates back to the Storm Water District Act of 1909. Of the total general property

taxes, \$17.3 million is earmarked for the Stormwater Fund. The Stormwater Fund is almost entirely funded by property taxes.

ID 1 was formed to fund contract repayment obligations for the construction of the Coachella Canal, and operation and maintenance costs of the irrigation and drainage system. The Canal is owned by the United States Bureau of Reclamation (USBR, Bureau), but is maintained and operated by the District. After the debt to the Bureau was paid, the District continued to levy the ID 1 tax for purposes of maintaining the Canal.

In addition to the Stormwater and ID 1 tax, there are other Improvement District property taxes resulting from older bond issues which benefitted the Domestic Water and Sanitation Funds.

After the earmarked property taxes are distributed to the appropriate funds, the balance, or discretionary tax, is allocated to the enterprise funds as determined by the Board of Directors (Board), and adopted during the annual budget process.

The following table depicts by fund, a history of the allocation of discretionary property tax revenue.

Allocation of Discretionary Property Tax Revenue

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Domestic Water	50%	50%	0%	50%	0%	0%
Canal Water	25%	25%	50%	50%	50%	50%
Sanitation	15%	0%	0%	0%	0%	0%
Stormwater	10%	0%	0%	0%	0%	0%
Nonpotable Water	0%	25%	0%	0%	0%	0%
West Replenishment	0%	0%	0%	0%	50%	50%
East Replenishment	0%	0%	50%	0%	0%	0%

Water Purchases

The District imports water from four sources: the Colorado River, the Metropolitan Water District of Southern California (MWD), the Glorious Land Co. (GLC), and the State Water Project (SWP).

Colorado River Water

The District imports approximately 300,000 acre-feet (af) of water annually at no cost. Additional water is received by the District as part of the 2003 Quantification Settlement Agreement (QSA). The cost of the additional QSA water is based on the terms of the QSA agreement. See the Canal Water Fund for additional information. The cost of the water purchased from the QSA agreement is \$79 per acre-foot in fiscal 2019.

Metropolitan Water District

In addition to the QSA water that is Colorado River water, the District receives water from the State Water Project as part of the QSA. This water is identified as Metropolitan Water District QSA Transfer water and is currently being delivered to the West Whitewater Replenishment Fund. The District, through its agreement with MWD, is entitled to receive 35,000 af of water. The cost of the water is dependent on the QSA water cost and the cost of conveyance that is charged to the District by MWD to deliver the water to the replenishment facility. The cost of the water for fiscal 2019 is estimated at \$270 per acre-foot. See the West Whitewater Replenishment Fund for more information.

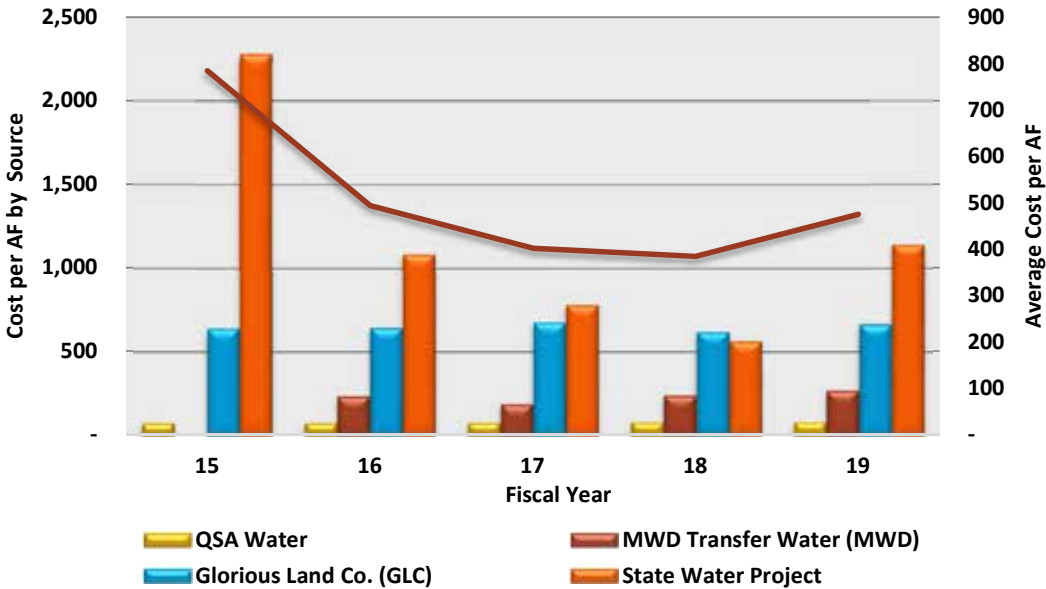
Glorious Land Co.

The District entered into a Water Supply Agreement in 2012 with GLC to purchase up to 16,500 af of water, if available. The cost of the water is adjusted annually based on a base rate plus a CPI inflator. The cost of the water increased from \$617 per acre-foot in 2018 to \$662 per acre-foot in 2019 due to higher transportation costs and inflation.

State Water Project

The SWP is the nation’s largest state-built water and power development conveyance system. The primary purpose of the SWP is to provide a water supply and delivery system to distribute water to areas of need in California. In 1963, the District entered into a water supply agreement with the State of California Department of Water Resources (DWR), becoming one of the original State Water Contractors. Each SWP contractor pays in proportion to their water supply allocations to cover the cost of constructing and operating facilities which store and transport the SWP water supply. Full payments are made each year for fixed SWP costs. Contractors also pay costs that vary depending on the amount of water delivered during the year. Availability of the water supply is highly variable based on the snowpack in the Sierras. As such, the cost per acre-foot is extremely variable. As shown in the graph below, the cost of SWP water has fluctuated between \$564 per acre-foot in 2018 to \$2,277 per acre-foot in 2015. The cost of SWP is budgeted at \$1,141 per acre-foot in fiscal 2019, due to the projected decrease in water that will be available. More information on the SWP can be found in the Water Replenishment section.

CVWD Sources and Cost per AF of Water



Reserves

One measure of the District's financial strength is the level of reserves or the accumulated revenues in excess of expenses. Although there is no set rule or formula for setting reserve levels, the need is determined primarily by the amount and degree of risk associated with revenues, pay-as-you-go vs. capital financing, and the requirements to fund emergencies or contingencies. As described in the Overview chapter, the District has adopted a reserve policy in order to send a signal to ratepayers, rating agencies, and regulatory agencies that the Board is committed to the District's long-term financial health and vitality.

Maintaining healthy operating reserves is paramount to ensuring the District's stable financial position for future borrowings.

It is anticipated that some capital improvements may need to be financed with debt or other loan instruments. Projected total reserves for fiscal 2019 are \$35.7 million less than fiscal 2018 budget. The primary reason for the difference is an increase in nonoperating expenses, particularly for the capital improvement program and for paying down the CalPERS unfunded liability by \$20 million.

Although it may appear that several funds, such as Sanitation and Stormwater have accrued excess reserves, the District historically has financed capital projects on a pay-as-you-go basis. This has allowed the District to avoid interest and other debt issuance expenses. The Stormwater Fund has numerous large capital projects in future years that will use reserves and require financing. As a means of reducing excess reserves, rate increases are not planned for the Sanitation Fund. The five-year forecast includes over \$619 million in proposed capital improvement projects. The largest projects are in Stormwater, which creates a significant impact on the budget and on reserves. Numerous alternative funding mechanisms are being explored to fund these critical projects, including Water Infrastructure Funding Investment Act loans, Federal Emergency Management Agency grants, and other grant funding.

The table below illustrates the projected ending operating reserves, as compared with targets established by the Reserve Policy, which was updated in May 2018. In addition, it shows the Districtwide total days of cash on hand. The recently adopted Reserve Policy has two benchmarks, (1) minimum reserve targets for each type of reserve, and (2) a Districtwide target of 365 days of cash on hand.

Changes in Reserves by Fund (000s)	Actual	Budget	Projected	Budget	Budget	%	Target
	FY 2017	FY 2018	FY 2018	FY 2019	Change	Change	FY 2019
Domestic Water	79,933	57,559	75,543	50,106	(7,453)	(12.9%)	50,236
Canal Water	59,903	53,255	62,755	54,655	1,400	2.6%	28,975
Sanitation	121,146	111,426	120,634	103,454	(7,972)	(7.2%)	32,139
Stormwater	117,548	113,060	123,921	114,687	1,627	1.4%	41,444
Nonpotable Water	4,244	3,873	3,058	275	(3,598)	(92.9%)	998
West Whitewater Replenishment	46,468	27,949	28,692	21,012	(6,937)	(24.8%)	32,330
Mission Creek Replenishment	3,653	2,037	2,023	2,104	67	3.3%	3,099
East Whitewater Replenishment	32,108	22,093	28,071	13,281	(8,812)	(39.9%)	3,420
Motorpool	2,744	1,452	4,042	1,610	158	10.9%	14
Workers' Compensation Self-Insurance	3,972	3,665	182	-545	(4,210)	(114.9%)	-
Dental Self-Insurance	17	78	53	104	26	33.3%	-
Total Reserves	471,736	396,447	448,974	360,743	(35,704)	(9.0%)	192,655
Districtwide Days' Cash on Hand	734	532	535	470	(62)	(11.7%)	

The table to the right shows the reserve types as provided for in the Reserve Policy. A complete description of these types, including their uses and basis of calculation, is included in the Overview chapter.

Reserve Type (000s)	Domestic	Canal	Sanitation	Stormwater	Other	Total
Designated						
Operating	20,288	6,751	8,844	1,949	6,258	44,090
Rate Stabilization	8,224	2,744	5,496	-	2,414	18,878
Capital Improvement	14,173	1,864	12,997	21,420	3,884	54,338
Emergency	5,015	17,326	4,227	17,600	803	44,971
Vehicle Replacement	1,036	290	575	475	102	2,478
Total Designated Reserves	48,736	28,975	32,139	41,444	13,461	164,755
Restricted						
Debt Service Coverage	1,500	-	-	-	-	1,500
State Water Project	-	-	-	-	26,400	26,400
Total Restricted Reserves	1,500	-	-	-	26,400	27,900
Total Reserve Target	50,236	28,975	32,139	41,444	39,861	192,655

Cost of Service Studies

The District engaged Stantec Consulting to prepare a Cost of Service Study (COSS) for the following funds: Canal Water, Domestic Water, Sanitation, West Replenishment, Mission Creek Replenishment, East Replenishment, and Nonpotable Water. A cost of service study evaluates the revenue requirements of the fund, determines the cost to serve the different customer classes of the fund, and designs rates to recover the cost to serve different customer classes. Stantec used standard water utility ratemaking practices to calculate the proposed rates, as promulgated by the American Water Works Association (AWWA).

Reports were completed for the Canal Water, Domestic Water, and Replenishment Funds in fiscal 2016. The reports were completed for Sanitation and Nonpotable in fiscal 2017 and are available on the website to review. The rates recommended in the reports are designed to fund each utility's long-term costs of providing service while proportionally allocating costs among customers, providing a reasonable and prudent balance of revenue stability, and complying with the substantive requirements of California Constitution Article XIII D, section 6, commonly known as Proposition 218. While the reports recommended rates for five years, it is up to the Board's discretion, based on the fiscal health of each fund, whether or not to implement the rates recommended. For fiscal 2019, there are no changes to rates.

Strategic Planning

The fiscal 2019 Strategic Plan has several initiatives that are specific to certain funds, which are discussed with each fund's narrative. Also included are the following initiatives that will address the fiscal health of all funds:

- **SG 2.2.3:** Reduce CalPERS unfunded liability
- **SG 2.2.4:** Establish grant funding plan for the District's Capital Improvement Program



Aerial view of Wastewater Reclamation Plant No. 10 with location of upcoming replenishment facility

The Five-Year Forecast

The forecast on the following page is a model that takes a forward look at the District's revenues and expenses with the purpose of identifying financial trends, shortfalls, and issues, so the Board of Directors and management can make proactive decisions. The financial forecast is not intended as a budget or as a proposed financial plan. The intent is to forecast each fund's financial position under certain assumptions. The forecast sets the stage for the upcoming budget process, aiding the General Manager and Board in establishing priorities and allocating resources appropriately.

The forecast is based on cash flow and differs from the District's audited financial statements. Financial statements exclude capital outlay and principal on debt in accordance with GAAP, since these are reflected as additions to assets and reductions to liabilities on the balance sheet.

By including all cash-based transactions in the forecast, the District can determine whether revenues are adequate to cover all expenses and future capital needs. Forecasting is one of the most powerful tools the District has available to help make informed financial decisions that will ensure the District's future vitality and economic stability.

Forecast Methodology

Economic forecasting is not an exact science. Forecasted amounts are estimates based on historical data, current year budgeted costs, and professional judgment. Reality will be different. The forecast serves as a general guideline and requires regular adjustment, as actual results may vary from the forecast.

To enhance the accuracy of projections, the Finance Department identifies factors that contribute to changes in revenues and expenses such as: development, inflation, personnel costs, expected levels of service, interest rates, and known future events that impact operations or capital needs. Forecasting should neither overstate revenues nor understate expenses.

Many items are beyond the scope of the financial model and control of the Board and staff. Some events that could impact the financial future of the District are: drought, economic growth or recession, energy costs, water supply, environmental and water quality mandates, and other events such as a major earthquake. Any of these could make the assumptions and the model obsolete.

Major Assumptions in the Five-Year Forecast

The base year which drives future calculations is fiscal 2019. This model focuses on the best estimate of what will occur on the expense side, as well as a conservative approach on revenues. Since economic growth in the Valley is slow, revenue projections reflect nominal growth.

Major assumptions impacting all funds are on the pages that follow. Specific assumptions impacting a fund can be located in the individual budget by fund.

Major Revenues

- Water sales revenues are forecast with some growth in the Canal Water Fund due to water that will be used for replenishment at the new Palm Desert Replenishment Facility. Domestic water sales revenues are forecast to increase based on small increases in consumption and a nominal account growth of one-half of one percent per year. There are no rate increases included in the projections.
- Service charges are forecast with nominal account growth and no rate increases.
- Replenishment revenues are forecast with no rate increases and decreasing production as producers move from groundwater pumping to nonpotable water.
- Property tax revenues are forecast with a 3% per year growth factor in assessed valuation, with redevelopment revenues forecast flat. Median home sales prices continue to rebound in most of the communities served by the District.
- Investment income is a function of the cash balance in each fund. Investment rate of return is forecasted at 1.612% of total reserves in each fund for fiscal 2019, 1.862% in fiscal 2020, 2.112% in fiscal 2021, 2.362% in fiscal 2022, and 2.612% in fiscal 2023.

All Funds Summary Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Water Sales	78,571,000	80,310,000	80,802,000	81,316,000	81,686,000
Sanitation Services Charges	39,260,000	39,456,000	39,653,000	39,653,000	39,653,000
Service Charges	14,205,000	14,276,000	14,347,000	14,419,000	14,491,000
Availability Charges	2,577,000	2,577,000	2,577,000	2,577,000	2,577,000
Replenishment Charges	23,402,000	23,312,000	23,218,000	23,119,000	23,015,000
Surcharges	996,000	1,033,000	1,036,000	1,039,000	1,041,000
Property Taxes - General	37,342,000	37,968,000	38,612,000	39,275,000	39,957,000
Property Taxes - SWP	66,311,000	67,968,000	69,667,000	71,409,000	72,837,000
Charges for Services	11,410,000	12,094,000	12,407,000	12,733,000	12,695,000
Intergovernmental Revenue	615,000	615,000	615,000	615,000	615,000
Effluent Disposal Revenue	550,000	550,000	550,000	550,000	550,000
Investment Income	6,512,000	6,716,000	5,495,000	4,599,000	3,696,000
Total Revenues	281,751,000	286,875,000	288,979,000	291,304,000	292,813,000
% Change From Prior Year		1.8%	0.7%	0.8%	0.5%
Expenses					
Salaries & Benefits (net of capitalized labor)	71,996,000	75,159,000	79,842,000	84,319,000	89,260,000
Supplies & Services	63,002,000	63,880,000	65,157,000	66,460,000	67,791,000
Utilities	16,068,000	16,577,000	17,102,000	17,646,000	18,208,000
Replenishment Charges	12,521,000	12,520,000	12,520,000	12,521,000	12,521,000
Water Purchases	83,139,000	90,038,000	90,277,000	91,125,000	92,167,000
QSA Mitigation Payments	9,232,000	1,745,000	739,000	2,698,000	2,707,000
Effluent Disposal Fee	550,000	550,000	550,000	550,000	550,000
Capital Outlay	2,979,000	2,979,000	2,979,000	2,979,000	2,979,000
Total Expenses	259,487,000	263,448,000	269,166,000	278,298,000	286,183,000
% Change From Prior Year		1.5%	2.2%	3.4%	2.8%
Operating Income (Loss)	22,264,000	23,427,000	19,813,000	13,006,000	6,630,000
% Change From Prior Year		5.2%	(15.4%)	(34.4%)	-49.0%
Nonoperating Revenues (Expenses)					
Debt Service - Interfund	(9,124,000)	(9,125,000)	(9,077,000)	(9,112,000)	(251,000)
Interfund Revenues	9,124,000	9,125,000	9,077,000	9,112,000	129,000
Debt Service	(58,000)	(553,000)	(1,169,000)	(2,060,000)	(3,180,000)
Loan Proceeds	11,700,000	28,300,000	23,000,000	20,000,000	11,000,000
Capital Improvement Budget	(121,247,000)	(158,030,000)	(130,640,000)	(116,696,000)	(92,417,000)
Capital Improvement Reimbursements	-	275,000	7,200,000	8,910,000	-
Use of Restricted Funds	8,143,000	5,811,000	9,159,000	9,895,000	13,288,000
Grant Revenue	890,000	-	-	-	-
Capital Grant Revenue	6,541,000	275,000	7,200,000	8,910,000	-
CalPERS Liability Buy-down	(20,000,000)	-	-	-	-
Total Nonoperating Revenues (Expenses)	(114,031,000)	(123,922,000)	(85,250,000)	(71,041,000)	(71,431,000)
Increase (Decrease) in Cash Flow	(91,767,000)	(100,495,000)	(65,437,000)	(58,035,000)	(64,801,000)
Beginning Reserves	448,974,000	360,743,000	260,248,000	194,811,000	136,776,000
Transfers From/(To) Other Funds	3,536,000	-	-	-	-
Ending Reserves	360,743,000	260,248,000	194,811,000	136,776,000	71,975,000
% Change From Prior Year		(27.9%)	(25.1%)	(29.8%)	(47.4%)

Major Expenses

- Based on latest information from the Imperial Irrigation District (IID) and Southern California Edison (SCE), electricity rates are expected to increase by 3% per year for the forecast period.
- Supplies & services are estimated to increase by an inflationary factor of 2%.
- Capital outlay items vary from year to year, and are forecast at fiscal 2019 levels.
- Water purchases and replenishment charges account for 36% of total operating expenses. Increases in
- Water purchases are based on existing contracts with multiple agencies.
- Water supply availability from the State Water Project is highly variable and based on weather conditions. The forecast is based on the District’s average delivery reliability of 50% of its entitlement for fiscal 2020-2023. Costs to support the development of the Bay-Delta Conservation Plan, also known as the California Water Fix, Oroville Dam remediation, and Sites Reservoir are not included in the SWP expenses.
- Quantification Settlement Agreement Mitigation payments follow the schedule set in the agreement, plus a prepayment recently agreed upon with the other Joint Powers Authority members.

Salaries & Benefits

Salaries & benefits comprise 27.7% of fiscal 2019 total operating expenses. Key components of this category are wages, retirement, and health insurance. Budgeted staffing levels increased to 561.5 full time equivalents (FTEs) for fiscal 2019, with the addition of 5 FTEs and 1 half FTE. Salaries & benefits for fiscal 2019 are based on current Memorandums of Understanding

(MOUs). The five-year forecast includes a 4.1% per year increase for fiscal years 2020-2023 for salaries. Benefits are forecast to increase by 8.9% in fiscal 2020, 6.2% in fiscal 2021, 6.2% in fiscal 2022, and 6% in fiscal 2023.

The increases are primarily due to an increase in the CalPERS rate and the contributions toward the District’s unfunded liability. In fiscal 2018, CalPERS began collecting the unfunded liability portion of employer contributions as a dollar amount. Previously, this was included as part of the contribution rate. This addresses potential funding issues that could arise from declining payrolls or reductions in the number of active participants in a plan. The largest component of the CalPERS payment is for the unfunded liability. The District requires CalPERS Classic Members to contribute 8% towards retirement and 5.5% for PEPRA Members.

The five-year forecast includes increases in the CalPERS unfunded accrued liability contribution amount as shown in the table below. In fiscal 2019, the District has chosen to prepay this amount, resulting in a savings of over \$360,000.

In addition, included in the budget for fiscal 2019 is \$20,000,000 to be contributed directly to CalPERS to buy down the unfunded liability, or to be set aside in a Section 115 Trust for future savings.

Nonoperating Revenues and Expenses

- Interfund debt service expenses are decreasing because payments on the interfund loan between East Whitewater and Domestic have been re-amortized.
- The forecast includes proceeds from a State of California Drinking Water State Revolving Fund loan for the Domestic Water Fund for capital projects
- Operations are funded first and remaining resources are allocated to fund capital improvements. The five-year Capital Improvement Plan is funded using restricted developer fees, capital improvement reserves, unrestricted reserves, reimbursements, grants, and loans.

CalPERS Contributions

	Actual FY 2018	Actual FY 2019	Forecasted FY 2020	Forecasted FY 2021	Forecasted FY 2022
Employer Contribution	7.776%	8.241%	8.7%	9.7%	9.7%
Unfunded Accrued Liability	\$7,952,144	\$8,885,064*	\$10,720,000	\$11,813,000	\$13,238,000

* Prepayment Amount

Domestic Water Fund



Background

Coachella Valley Water District first provided drinking water to Coachella Valley residents in 1961, under the pressure of the need for a unified agency in the valley. The State of California had a requirement that it would only contract with a public agency for the new State Water Project. The District understood the necessity of importing water into the Valley to ensure a more consistent supply, so it made an application to receive 23,100 acre feet of water. In addition, there were dozens of small water service companies and agencies within the District's boundaries that often provided inadequate service. The first private water agency was purchased in 1961, the La Quinta Palms subdivision water facilities. After that purchase, the District rapidly began expanding and forming improvement districts in order to supply domestic water to areas all across its boundaries. By 1967 the District had purchased or absorbed the operations of over 25 small water systems. In 1961 the District served only 1,100 households and businesses, this increased tenfold by 1973 to 10,741. Today, the District is the largest provider of drinking water in the Valley and delivers water to almost 108,000 accounts, representing population served of about 290,000.

Drinking water, also known as domestic water, comes from the Coachella Valley's vast aquifer. Groundwater, pumped from wells up to 1,200 feet deep, is stored in one of the District's 62 enclosed reservoirs for later use. While the aquifer has an estimated capacity of 39 million acre-feet (af), the Coachella Valley must manage its water supplies to avoid overdraft. The California Department of Water Resources defines overdraft as "the condition of a groundwater basin in which the amount of water withdrawn by pumping over the long term exceeds the amount of water that recharges the basin." That is, more water has been pumped from the groundwater basin than has been naturally or artificially replenished. Over the ten-year period from 2008 through 2017, the amount of groundwater in storage has slightly increased due to artificial replenishment and other management activities. To manage groundwater overdraft, the District, in cooperation with Desert Water Agency (DWA), has three groundwater replenishment facilities. The Domestic Water Fund pays replenishment fees to the three replenishment funds based on the total af pumped from District wells within the respective subbasin areas.

The water for replenishment comes from the State Water Project (SWP) and the Colorado River. Although there is not a direct connection to the SWP system, CVWD exchanges water on an acre-foot for acre-foot basis with Metropolitan Water District of Southern California (MWD) in order to obtain the District's allotment. The average cost for imported SWP water is \$1,141 per acre-foot, based on a 35% allocation from the SWP. The Colorado River base allocation of 301,000 af comes at zero cost; however, the additional water received from the Colorado River is currently priced at \$79 per acre-foot.

Groundwater pumped from the aquifer requires some treatment to meet all state and federal drinking water quality standards. Routine tests confirm groundwater produced by active CVWD wells is free of regulated bacteria. A small amount of chlorine is added to ensure drinking water served from the District's vast system of pipes complies with drinking water regulations. Arsenic that occurs naturally in portions of the Coachella Valley groundwater basin is found in a small number of wells. Treatment facilities are used to reduce arsenic levels below allowable levels.

The State of California's drinking water standard for Chromium-6 (Cr-6), adopted July 1, 2014, was challenged, and on May 31, 2017 the California Supreme Court ruled that the State failed to perform the required economic feasibility analysis. In accordance with the court order, the State reintroduced the Cr-6 drinking water standard to its 2018 list of priority projects along with developing a process to perform the required economic feasibility analysis. On February 1, 2018, the District completed a full-scale demonstration of an alternative Cr-6 reduction technology that met water quality goals derived from the previous regulation and has fewer impacts on communities and the environment and will be significantly less costly to implement compared to previously evaluated treatment technologies.

CVWD staff annually collects more than 16,000 water samples and tests for more than 100 regulated and unregulated substances. Many of these tests are performed at the District's state-certified water quality laboratory. Results of these water quality tests are included in the annual review and mailed to District customers each June.

The District operates 94 wells, with the ability to pump more than 234 million gallons per day. The combined reservoir storage capacity is approximately 135 million gallons. Reservoirs are secured sites primarily located in elevated areas, using gravity to bring water to homes and businesses. Water is delivered via a network of nearly 2,000 miles of distribution piping. Daily demand for drinking water averages 74 million gallons, equal to 82,923 af per year.

How is Water Measured?

What is one hundred cubic feet (Ccf) of water?

This is the unit of measure used when measuring and billing water to domestic water customers. One hundred cubic feet of water, or one Ccf, is equal to 748 gallons of water. For example, a typical bath tub holds 50 gallons of water. It takes about 15 bath tubs full of water to equal one Ccf.

What is an acre-foot?

Water is commonly measured by the acre-foot. The acre-foot measurement is what is used when the District sells large quantities of water to farmers, golf courses and well producers in the Coachella Valley.

One acre-foot equals 325,851 gallons. Put another way, an acre-foot of water is enough to flood a football field - which is roughly an acre in size - one foot deep.

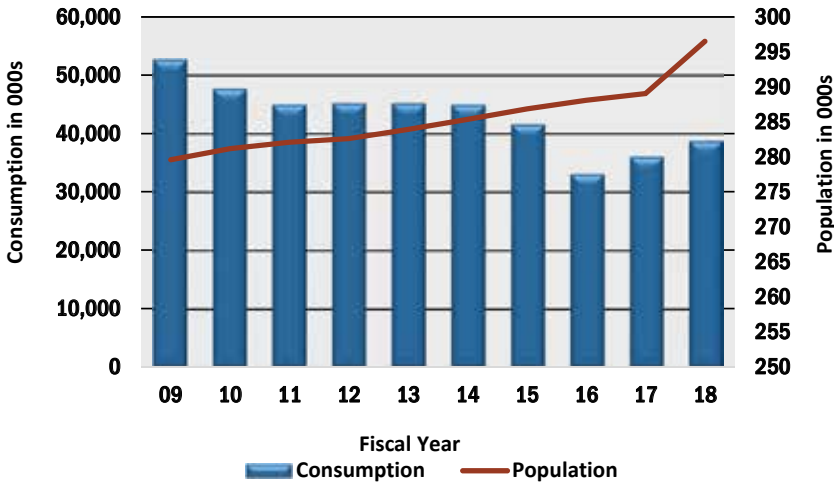
One acre-foot equals 325,851 gallons, or 435.6 Ccf, or 6,517 bath tubs full.

- 1 Ccf = 748 gallons
- 1 Acre-foot = 325,851 gallons
- 1 Acre-foot = 435.6 Ccf

Water Consumption

Actual water consumption in fiscal 2018 was higher than fiscal 2017 by 10.5%, as shown in the graph to the right. The major reason for this increase was the elimination of mandatory conservation rules enacted by the State of California in 2015. The State Water Resources Control Board had assigned different conservation mandates to different regions, with the Coachella Valley given a 36% reduction mandate that was eventually reduced to 32% from 2013 levels.

Domestic Water Consumption Compared to Population



Another factor influencing consumption is account growth. As depicted in the table to the right, over the past ten years the number of domestic water accounts increased by 6.7%. This table includes active accounts as well as fire protection meters. Although the District has experienced account growth and population growth, as evidenced by the graph on the previous page, the consumption per capita has been decreasing.

Conservation

All residential customers and most large landscape customers use groundwater for their outdoor irrigation purposes. Over 70% of all water used by CVWD’s domestic customers is for outside landscaping.

One of the most common causes of water waste in the Coachella Valley is overwatering. For this reason, outdoor water conservation is the primary focus of the District’s public outreach and water conservation programs. One of the most successful programs has been the installation of smart controllers, for both residential customers as well as large landscape accounts, such as homeowner’s associations. Smart controllers automatically set the amount of water the landscape receives each day based on the weather. Their use can reduce outdoor consumption by as much as 30%.

The District offers smart controllers free of charge to all customers. As of fiscal 2018, the residential and large landscape smart controller program has saved an estimated 9.4 billion gallons of water. Over 6,100 controllers have been installed.

Another popular program the District has to help reduce outdoor irrigation is the Desert Landscaping Program. The District pays residential customers \$2 per square foot, up to a maximum of 10,000 square feet. For commercial customers, rebates are available at \$2 per square foot, up to a maximum of 25,000 square feet. To date, more than 16.1 million square feet of grass has been converted to desert landscaping through CVWD’s rebate program. This results in an estimated annual water savings of 3.4 billion gallons.

In addition, the High-Efficiency Toilet Replacement Program has saved over 109 million gallons of water, with almost 7,100 toilets replaced. Residential customers have saved 49 million gallons, and commercial customers have saved 60 million gallons through this program.

Water Management’s budget for fiscal 2019 is \$6.5 million, with \$4 million budgeted for conservation programs.

Domestic Water Accounts

Calendar Year	Number of Accounts	Increase	% Increase	Cumulative Increase
2008	105,774			
2009	106,399	625.00	0.6%	0.6%
2010	107,002	603.00	0.6%	1.2%
2011	107,349	347.00	0.3%	1.5%
2012	107,544	195.00	0.2%	1.7%
2013	108,050	506.00	0.5%	2.2%
2014	108,599	549.00	0.5%	2.7%
2015	109,167	568.00	0.5%	3.2%
2016	109,629	462.00	0.4%	3.6%
2017	112,840	3,211.00	2.9%	6.7%



Each year, customers take advantage of CVWD’s Conservation Rebate Program, so they can benefit from turf conversions as shown above.

Rate Structure

The District uses a budget-based tiered rate structure to curb excess water use and reward water-efficient customers. Tiered rates are helping the District meet legislation enacted by the State of California to reduce per capita urban water use by 20% by the year 2020. Districtwide, domestic water consumption has dropped 26% since 2009 when budget-based rates were implemented.

The District’s budget-based tiered rate structure is designed to encourage conservation and efficient use, both inside and outside the home. Since the majority of water used by Coachella Valley residents is outdoors, the District factors in landscaping and weather conditions when calculating water budgets. For example, a water budget for a single-family home makes several assumptions:

- Each customer is given a default indoor water use of 8 Ccf per month (equal to 200 gallons per day for a family of four), which is consistent with current industry standards
- Each parcel is mapped for irrigable square footage or it is assumed that 45% of the parcel is landscape area
- Weather data is based on a daily five-year average

As illustrated in the table below, there are five tiers, with the first two tiers designed to meet the needs of an average single-family home of four people. All use in excess of tier 2 is considered inefficient and is charged at a higher rate to cover the incremental costs of providing water in excess of efficient use.

Tiered Rate Structure

Tier	Rate	Single-Family	Multi-Family	Commercial	Landscape Irrigation
Tier 1 – Excellent	0.95	Up to 8 Ccf		n/a	n/a
Tier 2 – Efficient	1.32	Up to 100% of budget		8 Ccf per EDU*	Up to 100% of budget
Tier 3 – Inefficient	2.46		100% to 175% of budget		
Tier 4 – Excessive	4.67		175% to 300% of budget		
Tier 5 – Wasteful	6.13		300% or more		

* Equivalent Dwelling Unit (EDU) is a term used to compare the flows generated from a commercial account to those generated by a single-family residential unit.

Fixed Rates

Domestic water service is broken down into five customer classes: single-family residential, multi-family, commercial, landscape irrigation, and construction meters. Each customer class is assigned a different monthly fixed charge to reflect the difference in the cost of providing service to them. The monthly service charge for construction meters remains \$125 for a 3” or smaller meter, and \$190 for a 4” or larger meter.

Monthly Service Charge (per Meter)

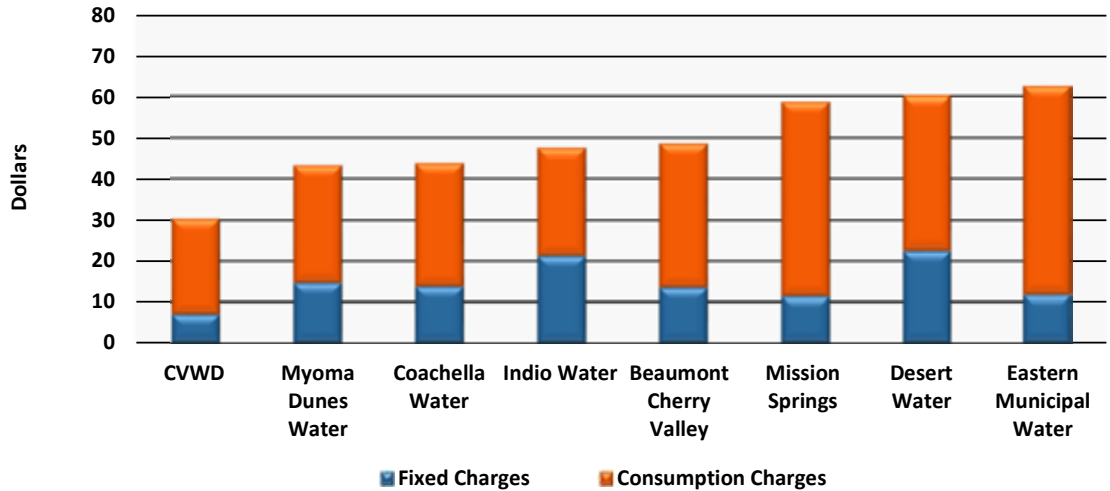
Customer Class	Meter Size			
	¾"	1"	1 ½ "	2"
Single-Family	6.92	11.51	23.02	36.85
Multi-Family	7.90	13.16	26.38	42.18
Commercial	4.96	8.26	16.53	26.44
Landscape Irrigation	17.14	28.59	57.17	91.52



Rate Comparison


The graph to the right and table below illustrate rate comparisons between CVWD and other water agencies in the region based upon usage of 20 Ccf. The District's rates are the lowest in the area. The blue portion of the bars indicate the monthly fixed charge; the orange indicates the consumption charge.

Residential Rate Comparison



Residential Rate Comparison

	CVWD	Myoma Dunes Water	Coachella Water	Indio Water	Beaumont Cherry Valley	Mission Springs	Desert Water	Eastern Municipal Water
Fixed Charges	6.92	14.67	13.80	21.16	13.51	11.36	22.48	11.70
Consumption Charges	23.44	28.56	30.00	26.30	35.00	47.43	37.80	50.76
Total per 20 Ccf Usage	30.36	43.23	43.80	47.46	48.51	58.79	60.28	62.46




Tap Water in Perspective


Still the Best Deal Around
A gallon of tap water is only

\$0.0015


A Gallon of Each of These Costs




\$55.00




\$17.00



\$1.00



\$3.50



\$4.76

Domestic Water Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Water Sales	55,762,000	53,224,000	56,500,000	56,511,000	3,287,000	6.2
Service Charges	14,072,000	14,134,000	14,000,000	14,205,000	71,000	0.5
Availability Charges	673,000	639,000	639,000	639,000	-	-
Property Taxes	7,534,000	426,000	500,000	563,000	137,000	32.2
Charges for Services	3,339,000	2,640,000	3,700,000	3,300,000	660,000	25.0
Investment Income	1,242,000	1,072,000	1,038,000	783,000	(289,000)	(27.0)
Total Revenues	82,622,000	72,135,000	76,377,000	76,001,000	3,866,000	5.4%
Expenses						
Salaries & Benefits (net of capitalized labor)	28,765,000	31,247,000	28,517,000	33,330,000	2,083,000	6.7
Supplies & Services	19,447,000	23,100,000	22,828,000	25,672,000	2,572,000	11.1
Utilities	9,054,000	9,103,000	9,536,000	9,629,000	526,000	5.8
Replenishment Charges	10,560,000	11,808,000	12,450,000	12,521,000	713,000	6.0
Capital Outlay	224,000	568,000	330,000	1,083,000	515,000	90.7
Total Expenses	68,050,000	75,826,000	73,661,000	82,235,000	6,409,000	8.5%
Operating Income (Loss)	14,572,000	(3,691,000)	2,716,000	(6,234,000)	(2,543,000)	(68.9%)
Nonoperating Revenues (Expenses)						
Interfund Revenues	4,429,000	11,811,000	11,811,000	8,995,000	(2,816,000)	(23.8)
Debt Service	-	-	-	(58,000)	(58,000)	-
Loan Proceeds	-	-	-	11,700,000	11,700,000	-
Capital Improvement Program	(23,541,000)	(39,962,000)	(29,536,000)	(42,246,000)	(2,284,000)	(5.7)
Contribution to Motorpool CIP	(1,228,000)	(1,401,000)	(1,268,000)	(1,032,000)	369,000	26.3
Capital Improvement Reimbursements	628,000	-	1,277,000	-	-	-
Use of Restricted Funds	8,380,000	8,085,000	8,000,000	5,731,000	(2,354,000)	(29.1)
Insurance/Settlement Proceeds	(2,050,000)	-	150,000	-	-	-
CalPERS Liability Buy-down	-	-	-	(9,132,000)	(9,132,000)	-
Grant Revenue	17,000	500,000	55,000	490,000	(10,000)	(2.0)
Capital Grant Revenue	-	1,450,000	205,000	2,935,000	1,485,000	102.4
Total Nonoperating Revenues (Expenses)	(13,365,000)	(19,517,000)	(9,306,000)	(22,617,000)	(3,100,000)	(15.9%)
Increase (Decrease) in Cash Flow	1,207,000	(23,208,000)	(6,590,000)	(28,851,000)	(5,643,000)	(24.3)
Beginning Reserves	78,726,000	79,933,000	79,933,000	75,543,000	(4,390,000)	(5.5)
Transfer From/(To) Other Funds	-	834,000	2,200,000	3,414,000	2,580,000	309.4
Ending Reserves	79,933,000	57,559,000	75,543,000	50,106,000	(7,453,000)	(12.9%)

Budget Summary

Domestic Water revenues are budgeted 5.4% higher compared to the fiscal 2018 budget. The largest increase is revenues from water sales, which are budgeted to increase based on the consumption patterns from fiscal year 2018. In addition, charges for services are increasing based on historical trends.

Expenses are expected to increase by \$6.4 million or 8.5% from the prior year's budget, with increases across the board in all line items. Ending reserves for fiscal 2019 are budgeted at \$50.1 million, a decrease of \$7.5 million from the fiscal 2018 budget.

Nonoperating revenues include interfund revenues, the use of restricted funds for capital improvements, grant revenue, and other sources. Interfund revenues are the principal and interest payments from the East Whitewater Replenishment Fund. This is the fifth year of a 15-year loan. Repayment of this loan has been accelerated and will be paid off by fiscal 2021. The District has also received an award of a State

Revolving Fund (SRF) Loan, with proceeds of \$11.7 million budgeted for fiscal 2019. Additionally, the Domestic Water Fund will contribute \$1 million to the Motorpool Fund to purchase vehicles or equipment related to Domestic Water.

There are several initiatives in the fiscal 2019 Strategic Plan that will benefit or are related to the Domestic Water Fund:

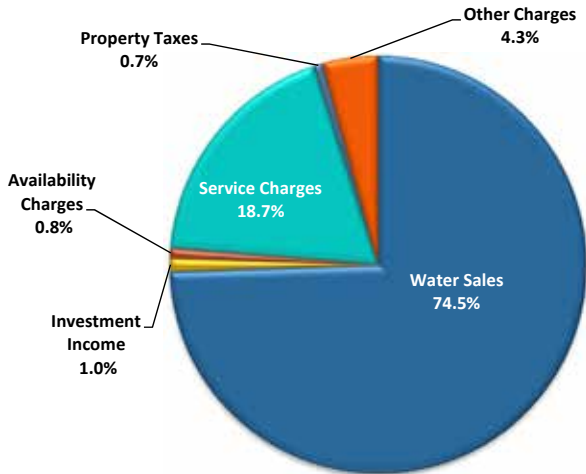
- **SG 2.2.3:** Reduce CalPERS Unfunded Liability
- **SG 2.2.4:** Establish Grant Funding Management Plan
- **SG 4.1.9:** Implement Automated Meter Infrastructure Pilot Metering Project
- **SG 6.1.16:** Implement Findings of Well Maintenance Prioritization Plan
- **SG 6.3.17:** Develop Asbestos Cement Pipe Replacement Strategy
- **SG 6.3.18:** Design Avenue 66 Transmission Main to Provide Redundancy and Reliability to Eastern Coachella Valley



At the Ion Exchange Plant in Thermal, CA, crews clean pressure plate filters of red waste material.

Revenues

Operating Revenues
\$76,001,000



Water Sales represent 74.5% of the Domestic Water Fund operating revenues. Revenues from water sales are budgeted at \$56.5 million. The budget is based on the assumption that water consumption will remain similar to fiscal 2018 levels of 38.8 million Ccf. In addition, no rate increases are being implemented in fiscal 2019.

Water sales revenues are commodity sales, or the sale of water based upon water consumption at the customer’s meter. Water sales are based on the rates and consumption projections in each of the customer classes. Customers pay for the amount of water used which is calculated using the budget-based tiered rate structure.

Service Charges are the monthly fees each customer pays, based on the size of the meter installed and the customer class. Service charges account for 18.7% of the operating revenues of the Domestic Water Fund and are based on the rates adopted October 1, 2016.

Charges for Services account for 4.3% of the fund’s revenues and are comprised of application fees, turn-on fees, fines, meter installation fees, inspection fees, plan check fees, leases, penalties, and utility use incentives. These are highly variable revenue sources and are estimated using historical averages.

Availability Charges are levied against all lands, any boundary of which is within 660 feet of an existing water main. Parcels of land with active domestic water service during

the current fiscal year will be considered as having met the availability charge. These charges are placed on the tax rolls each year and are very stable revenue sources.

Property Taxes represent the dedicated share of the 1% Riverside and Imperial Counties’ secured property tax levy pursuant to the California Revenue and Taxation Code. Property values have been increasing and recent sales of single-family homes have shown modest price increases. Property values reset each time there is a change in ownership, with the value being established at the sales price. Property tax revenues are projected to be \$563,000 in fiscal 2019, accounting for 0.7% of Domestic Water’s operating revenues.

Interfund Revenues are principal and interest payments on a 15-year loan made to the East Whitewater Replenishment Fund for the construction of the Thomas E. Levy Groundwater Replenishment Facility (TEL). The repayment of this loan is being accelerated and the principal and interest payments for fiscal 2019 will be \$9 million.

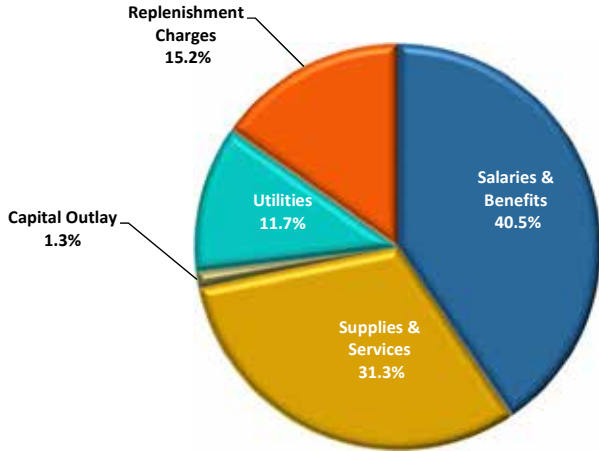
Investment Income is earned based on the cash balance in the fund. For fiscal 2019, the rate of return is budgeted at 1.6%.



Crews cut a section of a water main and replace it with a distribution manifold that had two 12” butterfly valves.

Expenses

Operating Expenses
\$82,235,000



Domestic Water Fund expenses amount to \$82.2 million, an increase of \$6.4 million from fiscal 2018. The chart above shows a breakdown by element.

Salaries & Benefits amount to \$33.3 million, an increase of 6.7% compared to fiscal 2018. This increase reflects the impact of additional staff, as well as some modest increases in employee salaries and an increase in the CalPERS rate.

Supplies & Services are budgeted at \$25.7 million, which is a \$2.6 million increase compared to fiscal 2018. The main areas of increase are in professional services for the asset management program, grant administration, and election costs.

Utilities are budgeted at \$9.6 million, a 5.8% increase due to the projected increase in pumping of groundwater, as well as nominal rate increases from the providers.

Replenishment Charges are budgeted to increase by \$713,000 due to increases in production.

Capital Outlay is budgeted at \$1.1 million and is an increase of \$515,000 compared to fiscal 2018. The increase is attributed to the purchase of a new trunk radio system to replace the obsolete system.

Domestic Water Restricted Funds

Water System Backup Facility Charges (WSBFC) are fees assessed on all new development, redevelopment projects, connections of existing residential units, and upgrades of

existing commercial units within the District’s domestic water service areas. These funds are restricted for constructing backbone facilities for additional capacity for pumping, storing, and distributing water.

At the beginning of fiscal 2019, there is \$21.8 million in restricted funds available for allowable projects. Approximately \$5.7 million in restricted funds will be used to fund domestic water projects in fiscal 2019. WSBFC revenues average about \$3 million per year. The five-year Capital Improvement Plan (CIP) proposes using approximately \$14.9 million in restricted funds. Based on this plan, there are adequate restricted funds available.

Capital Improvements

There are \$42.2 million in capital improvements budgeted for fiscal 2019. The budget includes projects for the construction of additional well sites, water main extensions to underserved areas, numerous water main replacement projects, and the rehabilitation of several reservoirs. The fiscal 2019 Capital Improvement Budget is funded using an SRF loan, grants, unrestricted reserves, and restricted reserves. More details are located in the Capital Improvements chapter.

Five-Year Forecast

The biggest challenges facing the Domestic Water Fund over the next five years are funding the Capital Improvement Plan and maintaining debt service coverage for the new State Revolving Fund loan. There are two years remaining on a five-year Proposition 218 notice of planned rate increases. Reserves fall below the reserve policy target at the end of fiscal 2019, and will steadily decline if no future rate increases are adopted. In addition, without rate increases or another source of revenue, the debt service coverage will fall below covenant for fiscal 2020.

There are approximately \$155 million in capital improvements in the five-year forecast. One project is being funded by a \$26 million SRF loan, and the remainder of the Capital Improvement Plan will be funded with cash and some grants. A funding plan for the CIP is being developed that will most likely include additional loans and grants. The five-year forecast reflects no rate increases in future years, although there are two years remaining on the Prop 218 notice. Rate increases will need to be reviewed annually to determine the amount of the increase needed.

Domestic Water Fund Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Water Sales	56,511,000	56,671,000	56,831,000	56,994,000	56,994,000
Service Charges	14,205,000	14,276,000	14,347,000	14,419,000	14,491,000
Availability Charges	639,000	639,000	639,000	639,000	639,000
Property Taxes - General	563,000	580,000	597,000	615,000	633,000
Charges for Services	3,300,000	3,300,000	3,300,000	3,300,000	3,300,000
Investment Income	783,000	933,000	481,000	211,000	-
Total Revenues	76,001,000	76,399,000	76,195,000	76,178,000	76,057,000
% Change From Prior Year		0.5%	(0.3%)	(0.0%)	(0.2%)
Expenses					
Salaries & Benefits (net of capitalized labor)	33,330,000	35,239,000	37,574,000	39,505,000	41,603,000
Supplies & Services	25,672,000	26,185,000	26,709,000	27,243,000	27,788,000
Utilities	9,629,000	9,929,000	10,239,000	10,559,000	10,889,000
Replenishment Charges	12,521,000	12,520,000	12,520,000	12,521,000	12,521,000
Capital Outlay	1,083,000	1,083,000	1,083,000	1,083,000	1,083,000
Total Expenses	82,235,000	84,956,000	88,125,000	90,911,000	93,884,000
% Change From Prior Year		3.3%	3.7%	3.2%	3.3%
Operating Income (Loss)	(6,234,000)	(8,557,000)	(11,930,000)	(14,733,000)	(17,827,000)
% Change From Prior Year		(37.3%)	(39.4%)	(23.5%)	(21.0%)
Nonoperating Revenues (Expenses)					
Debt Service - Interfund	-	-	-	-	(122,000)
Interfund Revenues	8,995,000	8,996,000	8,948,000	8,983,000	-
Debt Service	(58,000)	(273,000)	(609,000)	(940,000)	(940,000)
Loan Proceeds	11,700,000	14,300,000	-	-	-
Capital Improvement Budget	(42,246,000)	(44,835,000)	(26,050,000)	(23,795,000)	(17,979,000)
Contribution to Motorpool CIP	(1,032,000)	(921,000)	(243,000)	(1,080,000)	(1,905,000)
Capital Improvement Reimbursements	-	275,000	7,200,000	8,910,000	-
Use of Restricted Funds	5,731,000	3,425,000	1,645,000	125,000	4,000,000
CalPERS Liability Buy-down	(9,132,000)	-	-	-	-
Grant Revenue	490,000	-	-	-	-
Capital Grant Revenue	2,935,000	275,000	7,200,000	8,910,000	-
Total Nonoperating Revenues (Expenses)	(22,617,000)	(18,758,000)	(1,909,000)	1,113,000	(16,946,000)
Increase (Decrease) in Cash Flow	(28,851,000)	(27,315,000)	(13,839,000)	(13,620,000)	(34,773,000)
Beginning Reserves	75,543,000	50,106,000	22,791,000	8,952,000	(4,668,000)
Transfers From/(To) Other Funds	3,414,000	-	-	-	-
Ending Reserves	50,106,000	22,791,000	8,952,000	(4,668,000)	(39,441,000)
% Change From Prior Year		(54.5%)	(60.7%)	(152.1%)	744.9%



Reservoir under construction in Thousand Palms, CA

Canal Water Fund





Lining repair on the Coachella Canal

Background

CVWD provides canal water to more than 1,200 accounts, including agriculture, golf courses, lakes, and replenishment facilities. Accounts are billed monthly for canal water usage on a per acre-foot (af) basis.

The Coachella Valley’s farmland is ranked among the most profitable crop-growing regions in the state on a per acre basis. More than two-thirds of local farmland is irrigated with Colorado River (River) water delivered via the Coachella Canal (Canal), a branch of the All American Canal. More than 65% of area farms use drip or other micro-irrigation, which reduces water use, allows pesticides and herbicides to be added directly into irrigation lines, and contributes to increased crop yields. These irrigation practices place area farms among the most efficient agricultural water users in the state.

The Coachella Canal

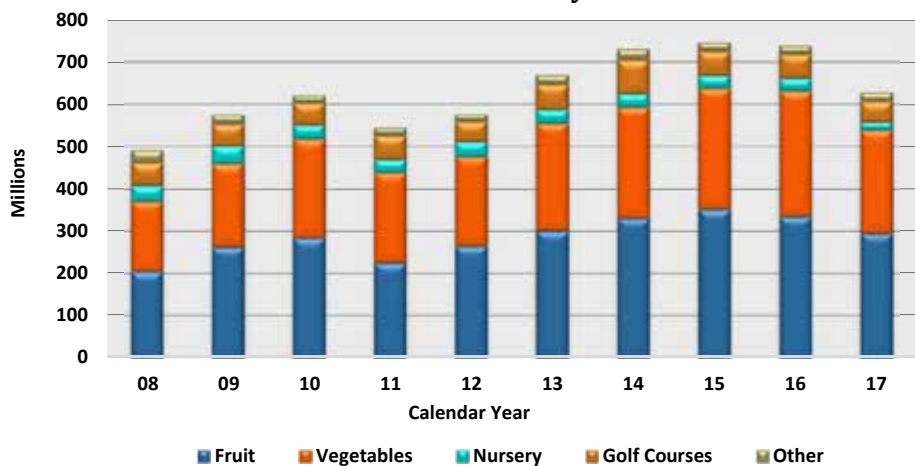
In 1934, CVWD entered into a contract with the United States Bureau of Reclamation (Reclamation, USBR) for the construction of the Coachella Branch of the All American Canal. Reclamation agreed to deliver water to CVWD for potable and irrigation purposes within the 137,000 acre area known as Improvement District Number 1 (ID 1), of which 76,000 acres are irrigable. The larger size of ID 1 was established to maximize potential groundwater replenishment.

Costs associated with the construction of the Canal were to be reimbursed by CVWD. In 1935, CVWD adopted Ordinance Number 595 authorizing a tax levy for satisfying the repayment obligations to Reclamation. CVWD began levying the ID 1 tax in fiscal year 1950, with the repayment obligation satisfied in 1994. The Canal continues to be owned by the USBR, but is maintained and operated by CVWD.

The Coachella Canal was completed in 1948, with CVWD taking water delivery in 1949. Water that flows through the Canal travels several hundred miles via gravity flow. It starts at the Colorado River and diverts into the All American Canal at the Imperial Dam, located 18 miles north of Yuma, Arizona. The water is diverted again, 38 miles downstream, into the Coachella Canal.

When the Canal was built, the northern 38 miles were lined with concrete to ensure more efficient connections to the underground distribution system. In 1980, the southern 49 miles of the Canal were replaced by a parallel concrete waterway that resulted in a savings of more than 130,000 acre-feet per year (af/yr). The remaining 36 miles of earthen waterway and canal were replaced with a parallel, concrete canal in 2006. The project was funded by the state of California and San Diego County Water Authority (SDCWA) as part of the 2003 Quantification Settlement Agreement (QSA).

**Crop Value by Industry
Ten-Year History**



As depicted in the chart above, crop production for 2017 exceeded \$627 million. This represents a 15% decrease compared to 2016. In addition, total acreage irrigated decreased 8.5% compared to the prior year. Total acreage irrigated decreased due to crop rotations and many of the permanent crops such as grapes taken out of service due to age. The top ten crops by value are grapes, lemons/limes, peppers, dates, carrots, lettuce, nursery plants, tomatoes, Oriental vegetables, and spinach.

Irrigation Distribution and Drainage System

In 1947, CVWD entered into a contract with the USBR for the construction of the irrigation distribution system and a system of protective works to protect the Canal and systems from alluvial fan flooding. Shortly after work on the Canal was completed, CVWD began construction on an underground tile system designed to carry agricultural irrigation drainage water away from farmland to the Salton Sea. The irrigation distribution system includes 485 miles of low-pressure concrete pipes ranging in size from 12-inches (in) to 92-in, which distribute water to 40-acre blocks of land within ID 1. Repayment obligations to Reclamation were satisfied in 1995 from the ID 1 property taxes. Today, there are nearly 2,300 miles of on-farm and CVWD-maintained drains.

Colorado River Water Supply

What is the Quantification Settlement Agreement (QSA)?

Although CVWD's Colorado River water rights date back to 1934, the Quantification Settlement Agreement, which was successfully ratified in October 2003, defined CVWD's allocation. The QSA quantifies Colorado River water allocations to California water contractors for 75 years, which allows for the transfer of water between agencies. CVWD received a base allocation of 330,000 af/yr under the QSA. CVWD's gross Colorado River supplies will gradually ramp up to 488,000 af/yr in 2026 through transfers with the Metropolitan Water District (MWD) and Imperial Irrigation District (IID).

The landmark 2003 QSA enabled California to implement major Colorado River water conservation and transfer programs, stabilizing water supplies for 75 years and reducing the State's demand on the River to its 4.4 million acre-foot/yr (maf/yr) entitlement. The agreement also provided mitigation funding for the environmentally sensitive Salton Sea. The completion of the QSA required the commitment and combined efforts of the following organizations:

- Coachella Valley Water District
- San Diego County Water Authority
- Imperial Irrigation District
- Metropolitan Water District of Southern California
- State of California
- U.S. Department of the Interior

What are the Benefits?

The QSA enabled California to reduce its historic over-dependence on the Colorado River through voluntary agriculture-to-urban water transfers, primarily achieved

through conservation programs (including canal lining). The State has since lived within its 4.4 maf/yr entitlement. The QSA quantified CVWD's entitlement to Colorado River water, protecting this allotment from use by other agencies, and provided rights to additional, significant amounts of imported water through transfers.

In addition, companion legislation required the State to identify a preferred Salton Sea restoration alternative and funding plan. In 2007, the State identified and submitted to the Legislature an \$8.9 billion preferred alternative, but the Legislature has yet to act on the preferred alternative, nor has it provided a viable funding plan.

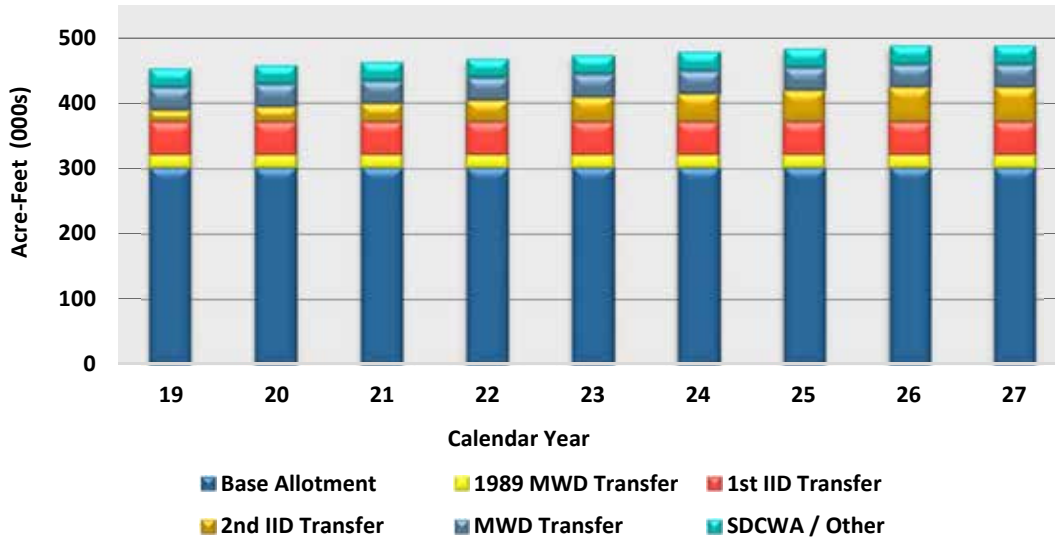
How did it impact CVWD?

The QSA quantified CVWD's entitlement to Colorado River water, which ensured that other agencies could not use its allotment. The QSA also gave CVWD the rights to additional, significant amounts of imported water.

The District's annual base allotment of Colorado River water is 330,000 af. Water conserved from lining the last earthen section of the canal means that 21,500 af is transferred to SDCWA and 7,500 af is transferred to various Indian tribes, for an adjusted base allotment of 301,000 af. Additional allotments are being added each year, ramping up to a total allotment of 459,000 af in 2026.

The IID-CVWD Acquisition Agreement is the largest single transfer, which provides up to 103,000 af/yr to be delivered to the Coachella Canal by the way of the Imperial Dam and the All American Canal. The first delivery of this water started in 2008, and with the exception of a 13,000 af/yr increase in 2018, generally ramps up in increments of 5,000 af/yr during the life of the agreement. Two additional MWD transfer agreements provide another 55,000 af/yr.

QSA Water Supply Allotments 2019 - 2027



The graph above shows QSA water supply allotments through 2027.

How Secure is the Colorado River Water Supply?

The Colorado River Basin is one of the most critical sources of water in the West, providing water to nearly 25 million people for municipal use, irrigating nearly 5.5 million acres of land, and is the lifeblood for at least 22 Native American tribes, 7 national wildlife refuges, 4 national recreation areas, and 11 national parks.

Under the 1922 Colorado River Compact, the Upper Basin (Wyoming, Utah, New Mexico, and Colorado) receives 7.5 million acre-feet per year and the Lower Basin (California, Arizona, and Nevada) also receives 7.5 maf/yr. In 1944, Mexico secured an agreement for annual deliveries of 1.5 maf/yr from the river. It has since become clear that the early decades of the 20th century, the period on which the 1922 compact was based, were the wettest period in the Colorado River basin and not representative of the long-term climatic conditions of the West.

The Colorado River Basin has been experiencing drought conditions for the last 15 years. If the surface level of Lake Mead is projected to be at or below 1,075 feet on January 1 of the following year, the Secretary of the Interior may declare a Shortage Condition, which would trigger water restrictions for Arizona and Nevada. California currently

has no negotiated restrictions. Current projections by Reclamation (August 2017 24-month study) indicate a 0% chance of shortage in 2018, 15% chance in 2019, 42% chance in 2020, 45% chance in 2021 and a 52% chance in 2022.

Although California water districts hold senior rights to 4.4 maf/yr of Colorado River water, protecting water deliveries from mandatory reductions associated with the decline in Lake Mead elevations, these districts have engaged in voluntary water conservation efforts in order to prevent other states from experiencing the mandatory cutbacks. CVWD is currently in active discussions with other Colorado River rights parties on other methods to help preserve Lake Mead elevation levels.

Other significant Colorado River water actions that occurred in 2017 include the adoption of Minute 323 between the U.S. and Mexico, which provides certainty for the operations of the Colorado River until December 31, 2026. A key term in this agreement is that Mexico will have a more proactive role in ensuring that Lake Mead does not reach shortage conditions by contributing water to the lake trough conservation efforts. Within the U.S. the Upper Basin states (CO, NM, UT, and WY) are continuing to negotiate with the Lower Basin states (AZ, CA, and NV) to better define the terms of the Drought Contingency Plan (DCP). The DCP is envisioned to be a program that, through voluntary contributions of conserved water, will delay or eliminate shortage conditions on Lake Mead.

Annual Colorado River Allocation by State - Million Acre-Feet

California	Colorado	Arizona	Utah	Wyoming	New Mexico	Nevada
4.40	3.88	2.80	1.72	1.05	0.84	0.30



Water Costs

The base allotment of 301,000 af is provided at no cost to the District. The cost of additional allotments varies based on the terms of the QSA agreement.

Water costs are \$78 per acre-foot in 2018. Each year the cost of water is adjusted from the 1998 base price by a blended Producer Price Index and Gross Domestic Product Implicit Price Deflator. A 3% inflation factor is used for fiscal years outside the five-year budget.

The table below depicts acre-feet to be received, along with the estimated IID water transfer costs over the remaining term of the contract.

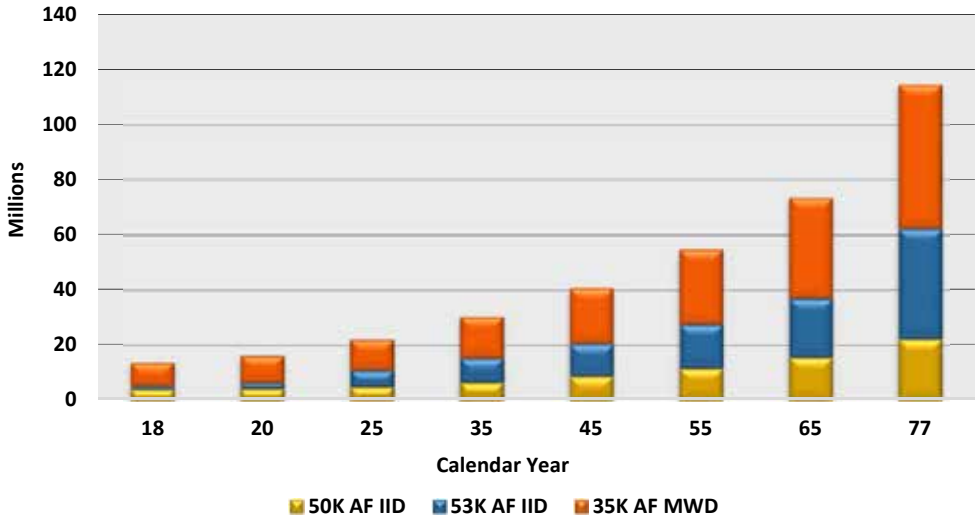
**IID Water Transfer Costs
2018 - 2077**

Year	IID Water Transfer Ramp-Up Schedule			Cost Per	
	50,000 (af)	53,000 (af)	Total (af)	Cost	AF
2018	50,000	13,000	63,000	\$ 4,919,760	\$ 78.09
2025	50,000	48,000	98,000	\$ 10,646,970	\$ 108.64
2035	50,000	53,000	103,000	\$ 15,136,142	\$ 146.95
2045	50,000	53,000	103,000	\$ 20,341,709	\$ 197.49
2055	50,000	53,000	103,000	\$ 27,337,557	\$ 265.41
2065	50,000	53,000	103,000	\$ 36,739,393	\$ 356.69
2077	50,000	53,000	103,000	\$ 62,187,177	\$ 603.76

In fiscal 2018, 68,000 af of IID water transfer costs were budgeted in the Canal Fund at an estimated cost of \$78 per acre-foot. The 68,000 af of water transfer was comprised of 50,000 af from the First 50,000 af Transfer Agreement and 18,000 af from the Second 50,000 af Transfer Agreement. The 35,000 af of Metropolitan Water District water transfers were budgeted in the West Replenishment Fund at a total cost (including transportation) of \$270 per acre-foot, since the water is delivered to the West Whitewater Replenishment Area.

The graph below shows the QSA water costs over the term of the contract.

**QSA Estimated Water Costs
2018 - 2077**



Rate Structure

Canal Water Service Charges are made up of two customer classes: Class 1 – Agriculture and Class 2 – All Nonagriculture. The definition of Class 1 and Class 2 customers is stated below:

Class 1 - Agriculture consists of all canal water customers who use canal water for direct potable water production or commercial agriculture activities - i.e., customers who use canal water for the purpose of producing an agricultural commodity for commercial purposes, including growing crops and raising animals for the commercial production and/or sale of food, fiber, fuel, and other products.

Class 2 - Nonagriculture consists of all other canal water customers - i.e., customers who use canal water for groundwater replenishment, including the District's Replenishment Fund, landscape irrigation, recreation, and other activities, including but not limited to: golf courses, hunting clubs, polo fields, and the District's Nonpotable Water Fund.

Water Supply Surcharges fund the cost of QSA water purchases and will be collected only from Class 2 and Temporary Construction Meter customers. Class 1 customers are designated as having a historical priority access to the District's Colorado River water rights (301,000 af per year). Since Class 1 customers use less than 301,000 af per year, those customers are not responsible for any QSA water purchase costs. In the event that Class 1 customers begin to consume canal water at a rate that exceeds 301,000 af per year, they will pay an equitable portion of the QSA water purchase costs and pay the Water Supply Surcharge.

Gate Charges are based on scheduled and unscheduled visits.

Outside ID 1 Surcharge is assessed to all customers outside of ID 1. The Canal Water Fund receives an allocation of the general ad valorem property tax revenue collected by the county within Improvement District 1. The ad valorem property tax is used, in part, to defray the costs of providing canal water services to canal customers located in ID 1. The Canal Water Fund does not receive any allocation of ad valorem property tax revenues collected from properties located outside of ID 1. The Outside ID 1 Surcharge will be imposed only on customers located outside of the boundaries of ID 1 and is designed to recover costs incurred by the District to serve these customers but whose costs are not defrayed by the ad valorem property tax revenues paid by ID 1 customers. The Outside ID 1 Surcharge is a fixed charge based on property acreage and is calculated by dividing the ID 1 property tax revenue in a given year by the total acres within ID 1 receiving canal water service.

Canal Rate History

The table below shows the five-year history of canal rates for the District. The rates remain the same as fiscal 2018.

Canal Five-Year Rate History

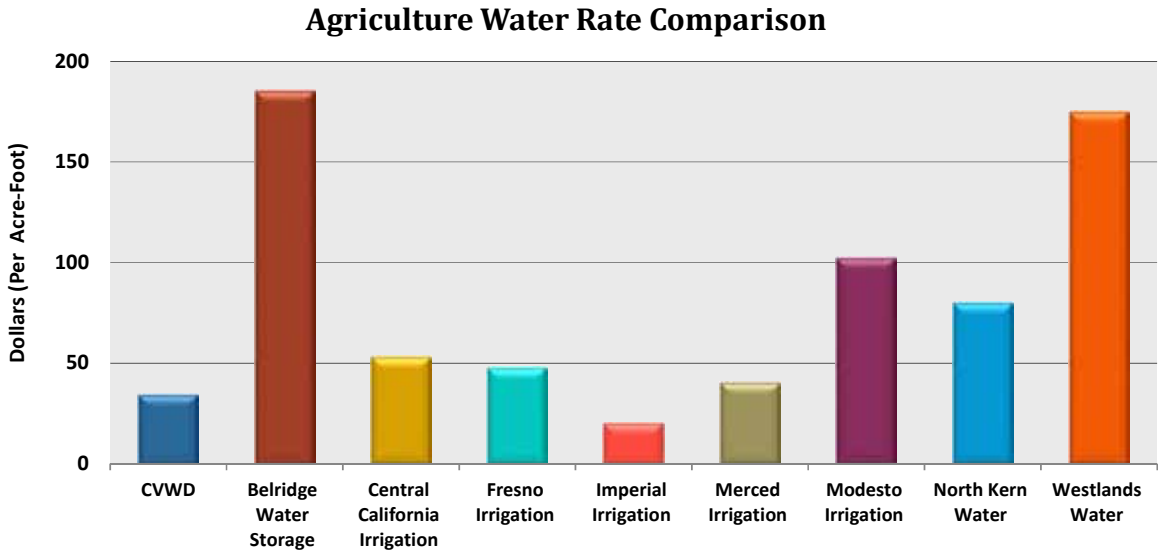
Service	FY 15	FY 16	FY 17	FY 18	FY 19
Water, per acre-foot, Class 1: Agriculture	28.95	28.95	33.48	34.32	34.32
Water, per acre-foot, Class 2: Nonagriculture (1)	42.15	42.15	33.48	34.32	34.32
Water, per acre-foot, Class 3: Nonagriculture (1,2)	86.25	86.25	n/a	n/a	n/a
Water, per acre-foot, Temporary Construction Meters (1)	140.00	140.00	45.15	47.41	47.41
Water Supply Surcharge	-	-	32.51	67.80	67.80
Quagga Mussel Surcharge, per acre-foot	5.00	5.00	2.65	2.78	2.78
Gate Charge, per day	11.50	11.50	n/a	n/a	n/a
Gate Charge - Scheduled, per visit	-	-	16.25	16.66	16.66
Gate Charge - Unscheduled, per visit	-	-	32.51	33.32	33.32
Outside ID 1 Surcharge (\$/acre/month)	-	-	3.69	3.69	3.69

(1) All Nonagriculture and Construction Meter customers pay the Class 1 rate plus the Water Supply Surcharge

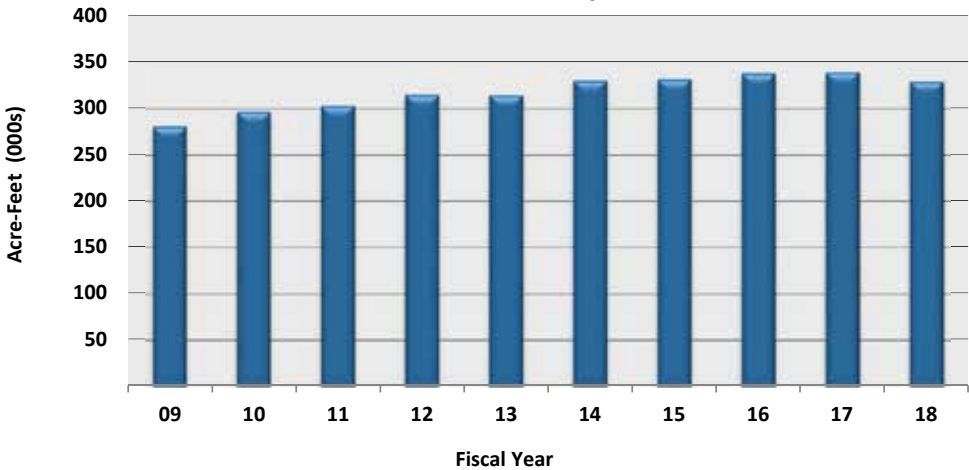
(2) Class 2 & Class 3 customers consolidated into a single Class 2

Canal Rate Comparison

The graph to the right shows the District's agriculture rate, as compared to other irrigation districts in California. The District's rate is among the lowest in the state. This is due in part to the large amount of Colorado River water received at no cost. Imperial Irrigation is the only other district on this list that receives solely Colorado River water.



Consumption by Year Ten-Year History

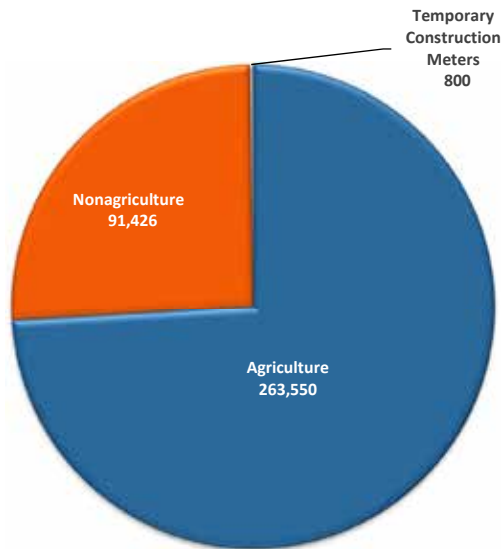


Consumption

Total consumption in fiscal 2017 was 339,054 af, compared to 328,592 af in fiscal 2018, a decrease of 10,462 af, as shown in the chart to the left. The decrease in consumption was primarily in non-agriculture customers.

As depicted in the chart to the right, Class 1 - Agriculture consumes the largest amount of canal water, approximately 264,000 acre-feet.

Budgeted Consumption by Rate Class 355,776 Acre-Feet



Budget Summary

The Coachella Canal was completed over 65 years ago. Currently, the District is challenged with maintaining an aging asset, while promoting water conservation, and maintaining rates that promote continued growth in the agriculture industry. As with all assets, proper maintenance and repair ensure reliable performance at the lowest operating cost. Underfunded canal systems lead to lost water, higher operating costs, and unreliable water deliveries. The replacement cost of the system, which includes the 123-mile Coachella Canal, 485 miles of distribution pipelines, and 2,298 miles of drainage, is estimated to be \$1.6 billion.

The fiscal 2019 Strategic Plan includes six initiatives related to the canal irrigation system:

- **SG 2.2.3:** Reduce CalPERS Unfunded liability
- **SG 2.2.4:** Establish Grant Funding Management Plan
- **SG 2.2.5:** Eliminate Coachella Valley Aquifer Overdraft by Implementing Strategies in the 2015 Coachella Valley Water District Imported Water Use Strategy Report
- **SG 3.4.7:** Conduct a feasibility study of developing cost effective projects for storage of Colorado River water
- **SG 3.4.8:** Implement Oasis Expansion Project, Phase 1
- **SG 4.1.10:** Develop plan to address needs and replacement of canal ordering and billing process

Revenues are budgeted 9.4% higher than the fiscal 2018 budget. Water sales are budgeted to increase by 8.7% and surcharges by 5%. The increase in water sales and surcharge revenues is primarily due to increased consumption resulting from the completion of Phase 1 of the Palm Desert Replenishment Facility. Property tax revenues are budgeted to increase by 4.4%, while charges for services are budgeted to increase by 39.9%. The increase in charges for services is due to under budgeting in fiscal 2018.

Operating expenses are budgeted to increase by 115,000, or 0.4%. Contributions to the Motorpool Fund consist of \$485,000 to fund the purchase of vehicles or equipment related to the Canal Water Fund.

Ending reserves are fully funded at \$54.7 million per Reserve Policy.



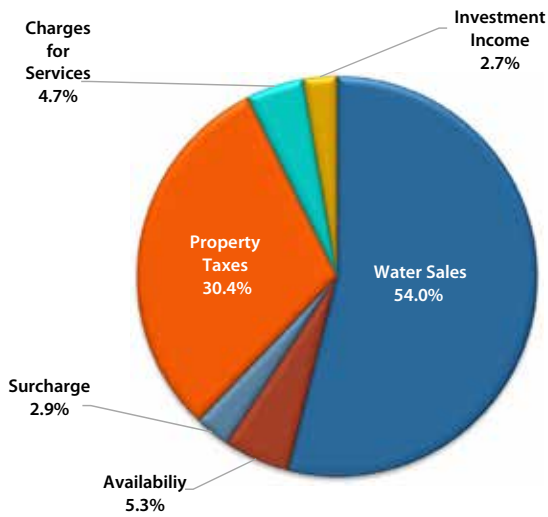
Mojave Lupine wildflowers on the Coachella Canal

Canal Water Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Water Sales	13,736,000	17,130,000	15,932,000	18,617,000	1,487,000	8.7
Availability	1,844,000	1,567,000	1,520,000	1,844,000	277,000	17.7
Surcharges	881,000	949,000	900,000	996,000	47,000	5.0
Property Taxes	10,099,000	10,042,000	10,042,000	10,488,000	446,000	4.4
Charges for Services	1,300,000	889,000	1,300,000	1,244,000	355,000	39.9
Intergovernmental Revenue	271,000	365,000	1,900,000	365,000	-	-
Investment Income	591,000	595,000	595,000	948,000	353,000	59.3
Total Revenues	28,722,000	31,537,000	32,189,000	34,502,000	2,965,000	9.4%
Expenses						
Salaries & Benefits (net of capitalized labor)	9,045,000	9,540,000	8,766,000	9,995,000	455,000	4.8
Supplies & Services	8,404,000	12,312,000	10,633,000	10,927,000	(1,385,000)	(11.2)
Utilities	672,000	662,000	641,000	686,000	24,000	3.6
Water Purchases	3,400,000	4,758,000	4,758,000	5,394,000	636,000	13.4
Capital Outlay	12,000	49,000	43,000	434,000	385,000	785.7
Total Expenses	21,533,000	27,321,000	24,841,000	27,436,000	115,000	0.4%
Operating Income (Loss)	7,189,000	4,216,000	7,348,000	7,066,000	2,850,000	67.6%
Nonoperating Revenues (Expenses)						
Capital Improvement Program	(6,585,000)	(12,561,000)	(4,318,000)	(12,544,000)	17,000	0.1
Contribution to Motorpool CIP	(753,000)	(333,000)	(164,000)	(485,000)	(152,000)	(45.6)
Capital Improvement Reimbursements	201,000	2,000,000	-	-	(2,000,000)	(100.0)
Insurance/Settlement Proceeds	54,000	-	-	-	-	-
CalPERS Liability Buy-down	-	-	-	(2,765,000)	(2,765,000)	-
Grant Revenue	81,000	-	-	-	-	-
Capital Grant Revenue	796,000	-	(571,000)	506,000	506,000	-
Other Revenues (Expenses)	15,307,000	-	-	-	-	-
Total Nonoperating Revenues (Expenses)	9,101,000	(10,894,000)	(5,053,000)	(15,288,000)	(4,394,000)	(40.3%)
Increase (Decrease) in Cash Flow	16,290,000	(6,678,000)	2,295,000	(8,222,000)	(1,544,000)	(23.1)
Beginning Reserves	43,613,000	59,903,000	59,903,000	62,755,000	2,852,000	4.8
Transfer From/(To) Other Funds	-	30,000	557,000	122,000	92,000	306.7
Ending Reserves	59,903,000	53,255,000	62,755,000	54,655,000	1,400,000	2.6%

Revenues

Operating Revenues
\$34,502,000



Water Sales are commodity sales, or the sale of water based on consumption in af (an acre-foot is equivalent to 325,851 gallons of water). Water sales represent 54% of the operating revenues, and are budgeted to increase 8.7%. Revenue generated by the Water Supply Surcharge (Class 2, Nonagriculture) is increasing primarily due to the completion of Phase 1 of the Palm Desert Replenishment Facility. It is projected that the new replenishment facility will purchase an estimated 12,500 af of Class 2 water from the Canal Fund in fiscal 2019.

Property Taxes account for 30.4% of the revenues in the Canal Water Fund. Property tax revenues include redevelopment revenues that represent pass-through agreements of former Redevelopment Agencies (RDAs), along with the District’s allocated share of the 1% Riverside and Imperial County secured property tax levy pursuant to the California Revenue and Taxation Code. Revenues from property taxes are budgeted at \$10.5 million, an increase of 4.4% from fiscal 2018. The increase in property tax revenues is the result of increased property assessed valuation.



Improvement District 1 boundaries

The graph to the right shows the assessed valuation in ID 1 over the past 10 years.

Improvement District 1 Property Taxes are included in the District’s 1% property tax allocated from Riverside County. These revenues are segregated and earmarked for the Canal Fund, before the distribution of the discretionary property taxes.

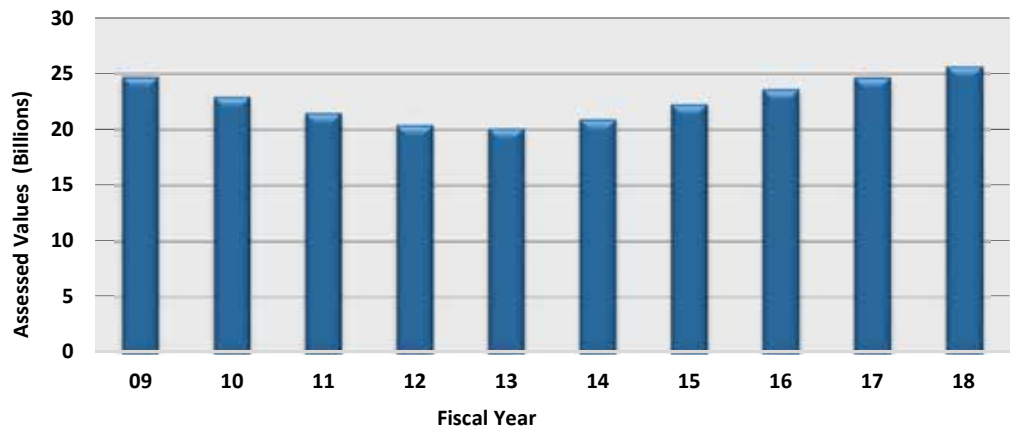
Improvement District 1 was formed to fund USBR contract repayment obligations for the Canal and its distribution and drainage systems. Although all debt obligations to USBR have been paid, the ID 1 property tax continues to be levied for the operation, maintenance, and replacement of the Canal, distribution, and drainage systems.

The revenues collected from the ID 1 tax are based on the assessed value of all properties within the improvement district boundary. The ID 1 tax will generate approximately \$2.5 million in property taxes in fiscal 2019. Improvement District 1 boundaries are depicted in the map on the previous page.

Charges for Services and Intergovernmental Revenue amount to 4.7% of total Canal Water Fund revenues, and include gate charges, intergovernmental revenue reimbursements, plan check fees, construction inspection fees, and other miscellaneous fees and charges. Gate charges comprise a majority of this revenue source and are assessed to canal customers for scheduled and unscheduled visits. Canal customers are currently charged for each visit, versus a flat daily charge as in previous years.

Surcharges total \$996,000 for fiscal 2019 and represent 2.9% of the revenues. Surcharge revenues include Quagga and Outside ID 1 surcharge revenue. The Quagga is a nonnative invasive mollusk that clogs and compromises water pipes and systems. It is pervasive in the Colorado River system, but District mitigation efforts have kept the Canal free of Quagga mussels. The surcharge pays for the maintenance and capital cost of Quagga mitigation and is estimated based on the rate and the amount of water consumed.

Improvement District 1 - Assessed Valuation Ten-Year History



Availability Charges are budgeted at \$1.8 million, and account for 5.3% of the revenues of the Canal Water Fund. The District levies an annual per-acre charge on all parcels or groups of parcels located in ID 1, which can be served with canal water.

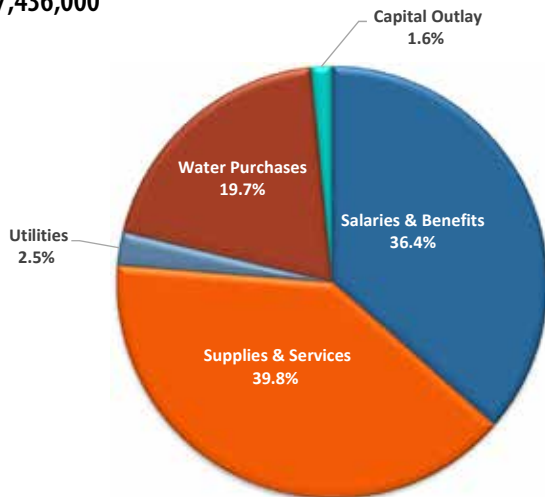
The per-acre charge is the Class 1 rate multiplied by 3.8, which is the 10-year average water demand per acre. The charge can be satisfied each year in one of three ways: (1) by paying the amount of the levy in full, (2) by paying water service charges equal to or in excess of the levy for that parcel, or (3) in the event water service charges are less than the amount of the levy, by paying the difference. This revenue source can be difficult to estimate due to the variability of water use from year to year.

Investment Income is budgeted at \$948,000 and represents 2.7% of total Canal operating revenues. Interest income is based on the cash balance in the fund and the interest generated by the combined investments of the District.



Expenses

Operating Expenses
\$27,436,000



Salaries & Benefits (net of capitalized labor) amount to \$10 million, an increase of \$455,000 compared to fiscal 2018. This increase reflects the impacts of labor contracts, increases in CalPERS contributions, District labor allocations, as well as additional staff.

Supplies & Services are budgeted at \$10.9 million, an 11.2% decrease from the prior year’s budget. This decrease is mainly due to a one-time cost of \$2 million for the mid-canal lining replacement project that was included in fiscal 2018. Increases in legal fees and operations and maintenance on the All American Canal are offset by reductions in contract services.

Water Purchases are budgeted at \$5.4 million, an increase of \$636,000. This reflects 5,000 af of additional water the District is entitled to receive, per the QSA. This allotment will augment the supply of canal water available for farming, golf courses, other urban uses, as well as groundwater replenishment.

Utilities are budgeted at \$686,000, an increase of \$24,000 from fiscal 2018.

Capital Improvements

There are \$12.5 million in capital improvements budgeted in fiscal 2019. Projects include \$8 million for irrigation lateral replacements and improvements, \$675,000 for drain pipeline replacements, \$400,000 in miscellaneous canal projects, \$400,000 in canal check structure replacement projects, and \$3 million for the fund’s share of General District projects.

More details on the Capital Improvements Plan are located in the Capital Improvement chapter.

Five-Year Forecast

The biggest challenge facing the Canal Water Fund over the next five years will be the execution of the Capital Improvement Plan. Irrigation lateral and pipeline replacements are critical to eliminate leaks, thereby saving water and improving delivery to irrigation customers. The five-year forecast reflects no annual rate increases primarily due to receipt of approximately \$15 million in nonoperating revenue in fiscal 2017 from Imperial Irrigation District (IID) and additional Class 2 revenue generated by the Palm Desert Replenishment Facility. In 1934, an agreement between CVWD and IID was established where IID was given first right to deliver water through the All-American Canal and a 99 year lease on whatever power rights CVWD might have on the canal. As rental for power rights, IID agreed to pay CVWD a percentage of the net proceeds from its power system.

There are approximately \$40.4 million in capital improvements included in the five-year forecast. Major projects include \$27 million in irrigation lateral replacements, \$675,000 in drain pipeline replacements, \$4.9 million in canal check structure replacement projects, \$400,000 in miscellaneous projects, and \$7.5 million for the fund’s share of General District projects.

Water sales revenues are projected to increase \$1.5 million by fiscal 2023, primarily due to increased Class 2 consumption due to the Palm Desert Replenishment Facility and increased consumption from additional golf course connections. Notwithstanding the additional revenues, operating income is not adequate to fund the five-year CIP.

Reserves are fully funded through fiscal 2023.

Canal Water Fund Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Water Sales	18,617,000	19,822,000	19,927,000	20,033,000	20,138,000
Availability Charges	1,844,000	1,844,000	1,844,000	1,844,000	1,844,000
Surcharges	996,000	1,033,000	1,036,000	1,039,000	1,041,000
Property Taxes - General	10,488,000	10,669,000	10,856,000	11,048,000	11,246,000
Charges for Services	1,244,000	1,244,000	1,244,000	1,244,000	879,000
Inter-Governmental Revenue	365,000	365,000	365,000	365,000	365,000
Investment Income	948,000	1,018,000	1,079,000	1,092,000	1,215,000
Total Revenues	34,502,000	35,995,000	36,351,000	36,665,000	36,728,000
% Change From Prior Year		4.3%	1.0%	0.9%	0.2%
Expenses					
Salaries & Benefits (net of capitalized labor)	9,995,000	10,658,000	11,187,000	11,941,000	12,512,000
Supplies & Services	10,927,000	11,146,000	11,369,000	11,596,000	11,828,000
Utilities	686,000	710,000	735,000	760,000	787,000
Water Purchases	5,394,000	6,119,000	6,991,000	7,909,000	8,875,000
Capital Outlay	434,000	434,000	434,000	434,000	434,000
Total Expenses	27,436,000	29,067,000	30,716,000	32,640,000	34,436,000
% Change From Prior Year		5.9%	5.7%	6.3%	5.5%
Operating Income (Loss)	7,066,000	6,928,000	5,635,000	4,025,000	2,292,000
% Change From Prior Year		(2.0%)	(18.7%)	(28.6%)	(43.1%)
Nonoperating Revenues (Expenses)					
Capital Improvement Budget	(12,544,000)	(10,238,000)	(10,241,000)	(3,646,000)	(3,772,000)
Contribution to Motorpool CIP	(485,000)	(253,000)	(235,000)	(116,000)	(361,000)
CalPERS Liability Buy-down	(2,765,000)	-	-	-	-
Capital Grant Revenue	506,000	-	-	-	-
Total Nonoperating Revenues (Expenses)	(15,288,000)	(10,491,000)	(10,476,000)	(3,762,000)	(4,133,000)
Increase (Decrease) in Cash Flow	(8,222,000)	(3,563,000)	(4,841,000)	263,000	(1,841,000)
Beginning Reserves	62,755,000	54,655,000	51,092,000	46,251,000	46,514,000
Transfers From/(To) Other Funds	122,000	-	-	-	-
Ending Reserves	54,655,000	51,092,000	46,251,000	46,514,000	44,673,000
% Change From Prior Year		(6.5%)	(9.5%)	0.6%	-4.0%



Traveling screens removing debris on the Coachella Canal

Sanitation Fund





Clarifier repairs at WRP 10

Background

CVWD began wastewater collections and treatment services in 1968. The Sanitation Fund provides sanitation (sewer) service to over 94,000 accounts, serving an estimated population of 252,000. CVWD operates five wastewater reclamation plants (WRPs, plants) with a total combined plant capacity of 33.1 million gallons per day. The average daily flow of wastewater to the five plants is 16.8 million gallons, which is over 6.1 billion gallons per year. The District has the capacity at its reclamation plants to increase wastewater treatment as the Valley’s population grows. CVWD also maintains 1,129 miles of collection piping systems and 27 lift stations.

Two of the plants, WRPs 7 and 10, produce tertiary treated water, which is available as recycled water and used by the Nonpotable Water Fund for delivery to customers. Every gallon of recycled water used for outdoor irrigation saves precious groundwater for potable use by domestic customers.

WRPs 1 and 2 are simple lagoon plants. WRP 4 consists of Biolac activated sludge, solids handling, lagoon treatment, and disinfection. WRP 4 discharges into the Coachella Valley Stormwater Channel and is the District’s only plant with a National Pollutant Discharge Elimination System (NPDES) permit. The District recently decommissioned WRP 9 and redirected its flows to WRP 4. WRPs 7 and 10 use conventional activated sludge as the treatment process, along with chlorine disinfection. The table to the right shows plant efficiencies for removing Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD), expressed in milligrams per liter. Both are standard measures of wastewater strength. Since WRPs 1 and 2 do not discharge, there are no effluent values to calculate efficiency.

Wastewater Reclamation Plant Efficiencies

Plant		Influent	Effluent	% Removed
WRP 4	TSS	2,874	298.975	89.6%
	BOD	2,408	120.64	95.0%
WRP 7	TSS	3,510	108.2	96.9%
	BOD	3,140	39.9	98.7%
WRP 10	TSS	3,402	89.35	97.4%
	BOD	3,039	59.99	98.0%
Total	TSS	9,786	496.525	94.9%
	BOD	8,587	220.53	97.4%

Sewer Rates

Sewer customers are charged a consumption-based fixed service charge which estimates sewage discharge, called an equivalent sewer unit (ESU). Sewage discharges for residential customers are based on their indoor water budget of 200 gallons per dwelling unit per day, established by the Domestic Water Fund. Multiplying the 200 gallons per day by 365 days per year yields an equivalent sewer unit of 73,000 gallons per year (approximately 97.6 hundred cubic feet). This ESU value is used as a common denominator to measure the relative impact of all customer classes on the sewer system.

In addition, a monthly account charge per customer is established to recover billing costs. Residential customers’ sewer bills are placed on the tax roll each year so their monthly account charge reflects the costs of placing the sewer bill on the tax roll.

The rv/trailer park customer class has sewage production patterns similar to residential, but receives monthly sewer bills rather than annual sewer bills, therefore they are charged a monthly account charge that reflects the cost to bill monthly.

Nonresidential accounts are based on potable water use, combined with an assumption of a “return to sewer” factor. The return to sewer factor estimates how much of the account’s potable water use is discharged to the sewer drain as wastewater.

All residential and rv/trailer park customers are charged one service charge per dwelling unit. Nonresidential customers are charged one service charge per equivalent sewer unit. ESU values are assigned to nonresidential customers based on 90% of their average daily water usage over the previous three years. The following table outlines the rates that are in effect for fiscal 2019.

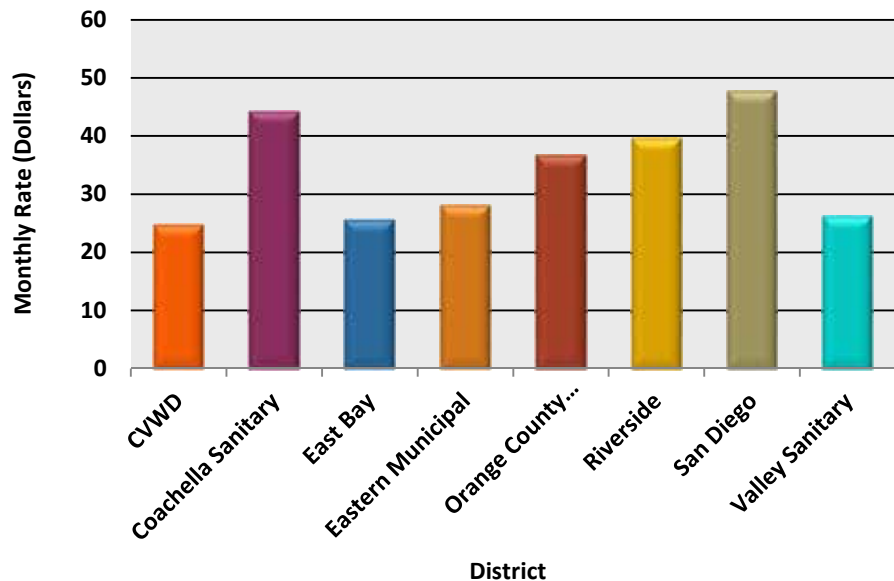
Monthly Sewer Rates

Customer Class	Account Charge	Service Charge per ESU
Residential	1.58	23.04
RV/Trailer Parks	3.98	23.04
Nonresidential	3.98	23.04

Sewer Rate Comparison

Residential customers receive their sanitation charges on their property tax bill. The charges are for one ESU and one monthly account charge multiplied by twelve. The District’s residential sanitation rates are about average, as shown in the adjacent graph.

Residential Sewer Rate Comparison



Budget Summary

The revenue budget is \$43.4 million, which is a 2.9% increase over fiscal 2018. The increase is due to slight growth in the customer base and an increase in property tax revenues. The expense budget increased by 11.2%. There are modest increases in salaries & benefits and utilities, with larger increases in supplies & services and capital outlay. Reserves are budgeted at \$103.5 million, a decrease of \$8 million compared to the fiscal 2018 budget. Reserves for the Sanitation Fund are fully funded, per the Reserve Policy.

The fiscal 2019 Strategic Plan includes the following initiatives related to the Sanitation Fund:

- **SG 2.2.3:** Reduce CalPERS Unfunded Liability.
- **SG 2.2.4:** Establish Grant Funding Plan.
- **SG 5.1.11:** Evaluate and recommend information management systems for effective wastewater operator monitoring and decision making.
- **SG 5.1.12:** Execute workplan to prepare the WRP 10 Groundwater Evaluation Technical Report.
- **SG 5.3.14:** Complete energy audits for WRPs 4 and 7, and develop plans to implement audit recommendations.

In the next five to ten years, effluent water produced at the WRPs may be required to meet additional restrictions on total nitrogen concentrations and salt. Further treatment to limit nitrogen would cost about \$50 million and salinity treatment would be approximately \$100 million. An alternative to treating for nitrogen is to ensure that all tertiary effluent is used by the Nonpotable Water Fund's customers via the nonpotable water distribution (purple pipe) system. This requires expansion of the program, which is included in the five-year CIP for Sanitation. But readers should be aware that should regulations change, it will have a major impact on the financial health of the fund.



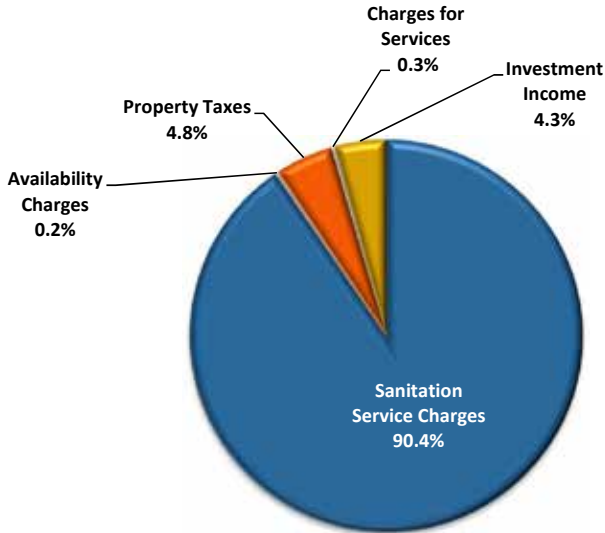
Chlorine room upgrade at WRP 10

Sanitation Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Sanitation Service Charges	39,073,000	38,585,000	39,240,000	39,260,000	675,000	1.7
Availability Charges	82,000	94,000	85,000	94,000	-	-
Property Taxes	1,798,000	1,837,000	1,871,000	2,084,000	247,000	13.4
Charges for Services	551,000	109,000	205,000	109,000	-	-
Investment Income	1,497,000	1,567,000	1,567,000	1,856,000	289,000	18.4
Total Revenues	43,001,000	42,192,000	42,968,000	43,403,000	1,211,000	2.9%
Expenses						
Salaries & Benefits (net of capitalized labor)	15,997,000	17,556,000	15,490,000	18,416,000	860,000	4.9
Supplies & Services	8,842,000	10,308,000	9,799,000	12,322,000	2,014,000	19.5
Utilities	3,740,000	3,743,000	4,102,000	4,088,000	345,000	9.2
Effluent Disposal Fee	466,000	600,000	475,000	550,000	(50,000)	(8.3)
Capital Outlay	365,000	546,000	545,000	1,036,000	490,000	89.7
Total Expenses	29,410,000	32,753,000	30,411,000	36,412,000	3,659,000	11.2%
Operating Income (Loss)	13,591,000	9,439,000	12,557,000	6,991,000	(2,448,000)	(25.9%)
Nonoperating Revenues (Expenses)						
Interfund Revenues	129,000	129,000	129,000	129,000	-	-
Capital Improvement Program	(13,091,000)	(19,457,000)	(18,167,000)	(24,512,000)	(5,055,000)	(26.0)
Insurance/Settlement Proceeds	7,183,000	-	-	-	-	-
Contribution to Motorpool CIP	(282,000)	(627,000)	(553,000)	(578,000)	49,000	7.8
Capital Grant Revenue	-	-	-	3,100,000	3,100,000	-
Grant Revenue	20,000	-	-	350,000	350,000	-
Use of Restricted Funds	4,346,000	2,520,000	4,300,000	2,412,000	(108,000)	(4.3)
Contribution to West RAC CIP	-	(1,724,000)	(200,000)	-	1,724,000	100.0
CalPERS Liability Buy-down	-	-	-	(5,072,000)	(5,072,000)	-
Total Nonoperating Revenues (Expenses)	(1,695,000)	(19,159,000)	(14,491,000)	(24,171,000)	(5,012,000)	(26.2%)
Increase (Decrease) in Cash Flow	11,896,000	(9,720,000)	(1,934,000)	(17,180,000)	(7,460,000)	(76.7)
Beginning Reserves	109,250,000	121,146,000	121,146,000	120,634,000	(512,000)	(0.4)
Transfer From/(To) Other Funds	-	-	1,422,000	-	-	-
Ending Reserves	121,146,000	111,426,000	120,634,000	103,454,000	(7,972,000)	(7.2%)

Revenues

Operating Revenues
\$43,403,000



Sanitation Service Charge revenues are budgeted at \$39.3 million and represent 90.4% of operating revenues. Sanitation service fees are charged to residential customers as a flat monthly rate. Rather than sending a monthly bill to residential customers, the District places the annual residential sewer charge on the tax roll. These revenues are transmitted by Riverside County in January and May, and by Imperial County five times throughout the year.

Residential sanitation service revenues are estimated based on current rates, and projected growth of 0.5% for the coming year. Commercial revenues are budgeted flat and are billed monthly along with the customer’s domestic water bill.

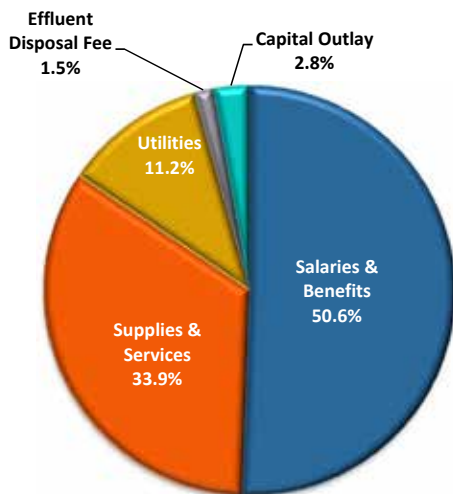
Property Taxes account for 4.8% of operating revenues and are projected to increase in fiscal 2019, based on the expected increases in assessed values.

Investment Income is budgeted at \$1.9 million and represents 4.3% of total Sanitation operating revenues. Interest income is based on the cash balance in the fund and the interest generated by the combined investments of the District. Interest rates have been relatively low for the last several years but have increased recently.

Interfund Revenues, which are nonoperating revenues, represent the principal and interest income from an interfund loan to the Nonpotable Water Fund for a pipeline.

Expenses

Operating Expenses
\$36,412,000



Budgeted expenses for the Sanitation Fund amount to \$36.4 million, which is an 11.2% increase from the fiscal 2018 budget. The chart on the left shows a breakdown of the expenses of the Sanitation Fund.

Salaries & Benefits increased 4.9% due to increases in CalPERS expenses, salary increases, and additional personnel.

Supplies & Services are budgeted at \$12.3 million, an increase of 19.5%. Most of the increases can be attributed to professional services for the Sanitation Master Plan, asset management program, and asset physical inventory, as well as an increase in anticipated legal fees.

Utilities are budgeted at \$4.1 million, an increase of 9.2%. This is a result of planned increases from the electrical providers.

Effluent Disposal Charges amount to \$550,000 and are paid to the Nonpotable Water Fund. The budget for effluent disposal is based on the amount of recycled water that is sent to off-site users.

Capital Outlay is budgeted at \$1 million, an increase of 89.7% compared to the prior year. Items include a new trunk radio system and paving of the dirt roads around one of the reclamation plants.

Sanitation Restricted Funds

Sanitation Capacity Charge (SCC) Collection and Treatment fees are assessed on all new development and connections of existing residential units, and upgrades of existing commercial units within the District’s sanitation system service area. These funds are restricted for constructing backbone facilities for collection and treatment of wastewater that provide additional capacity to the enterprise. As of fiscal 2018, there was \$3.8 million in SCC Treatment restricted funds available for allowable projects, and \$13.5 million in SCC Collection funds. The fiscal 2019 capital program requires the use of \$550,000 in Treatment funds. Collection funds in the amount of \$1.8 million will be used on capital projects in fiscal 2019.

The five-year CIP requires the use of \$20.7 million in Treatment funds, however only \$1.5 million is collected annually, on average. So there will be a shortage of Treatment funds available, which means that some projects may need to be delayed or funded with debt. Collection funds are required in the amount of \$10.7 million over the five year period, and there are adequate funds to complete all projects. A cost of service study to determine new fees will be completed in early fiscal 2019.



Tertiary Filter Improvement Project at WRP 10

Five-Year Forecast

The Sanitation Fund is fiscally sound over the next four years. Operating revenues continue to exceed operating expenses. Expenses are forecast to increase steadily, mainly due to increased salaries & benefits, utility costs, and an increase in supplies & services.

The five-year forecast includes \$207.6 million in capital improvements. A funding plan is being prepared that will identify alternative funding sources for the CIP, such as grants and State Revolving fund loans. Reserves are fully funded until fiscal 2023. A decision will need to be made regarding rate increases, unless alternative funding for the CIP is acquired.

Sanitation Fund Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Sanitation Services Fees	39,260,000	39,456,000	39,653,000	39,653,000	39,653,000
Availability Charges	94,000	94,000	94,000	94,000	94,000
Property Taxes - General	2,084,000	2,117,000	2,151,000	2,186,000	2,222,000
Charges for Services	109,000	109,000	109,000	109,000	109,000
Investment Income	1,856,000	1,926,000	1,648,000	1,450,000	1,197,000
Total Revenues	43,403,000	43,702,000	43,655,000	43,492,000	43,275,000
% Change From Prior Year		0.7%	(0.1%)	(0.4%)	(0.5%)
Expenses					
Salaries & Benefits (net of capitalized labor)	18,416,000	18,816,000	19,708,000	20,848,000	22,204,000
Supplies & Services	12,322,000	12,568,000	12,819,000	13,075,000	13,337,000
Utilities	4,088,000	4,220,000	4,356,000	4,498,000	4,645,000
Effluent Disposal Fee	550,000	550,000	550,000	550,000	550,000
Capital Outlay	1,036,000	1,036,000	1,036,000	1,036,000	1,036,000
Total Expenses	36,412,000	37,190,000	38,469,000	40,007,000	41,772,000
% Change From Prior Year		2.1%	3.4%	4.0%	4.4%
Operating Income (Loss)	6,991,000	6,512,000	5,186,000	3,485,000	1,503,000
% Change From Prior Year		(6.9%)	(20.4%)	(32.8%)	(56.9%)
Nonoperating Revenues (Expenses)					
Interfund Revenues	129,000	129,000	129,000	129,000	129,000
Debt Service	-	(280,000)	(560,000)	(1,120,000)	(2,240,000)
Loan Proceeds	-	14,000,000	23,000,000	20,000,000	11,000,000
Capital Improvement Budget	(24,512,000)	(47,810,000)	(50,761,000)	(47,147,000)	(37,407,000)
Contribution to Motorpool CIP	(578,000)	(361,000)	(1,149,000)	(666,000)	(123,000)
Use of Restricted Funds	2,412,000	2,386,000	7,514,000	9,770,000	9,288,000
CalPERS Liability Buy-down	(5,072,000)	-	-	-	-
Grant Revenue	350,000	-	-	-	-
Capital Grant Revenue	3,100,000	-	-	-	-
Total Nonoperating Revenues (Expenses)	(24,171,000)	(31,936,000)	(21,827,000)	(19,034,000)	(19,353,000)
Increase (Decrease) in Cash Flow	(17,180,000)	(25,424,000)	(16,641,000)	(15,549,000)	(17,850,000)
Beginning Reserves	120,634,000	103,454,000	78,030,000	61,389,000	45,840,000
Ending Reserves	103,454,000	78,030,000	61,389,000	45,840,000	27,990,000
% Change From Prior Year		(24.6%)	(21.3%)	(25.3%)	(38.9%)

Stormwater Fund



History



Whitewater River at Indian Avenue as it appeared on March 23, 1965

shambles, including the new paved road in the upper valley. The Whitewater's meandering channel had become a narrowed, deeply scoured channel up to 50 feet deep from Cathedral City to Point Happy.

The threat of flooding not only comes from the Whitewater River, which collects runoff from Mount San Gorgonio and Mount San Jacinto, but numerous canyons surrounding the valley in the San Bernardino, San Jacinto and Santa Rosa mountains. The valley has a flood front of about 150 miles — reaching all the way to the summit of the San Gorgonio Pass.

When Coachella Valley County Water District (CVCWD, District) began operations in 1918, the District actually shared an office with the Coachella Valley Storm Water District.

Ultimately, the Storm Water District was too small and lacked funds to build the necessary infrastructure to protect Coachella Valley residents and businesses from major floods.

In 1937, Coachella Valley voters and special legislation (Water Code 33100-33106), allowed the Coachella Valley County Water District to merge with the Coachella Valley Storm Water District, with the successor Coachella Valley County Water District assuming the powers and duties of both Storm Water and County Water District. In 1979, the District dropped "County" from its name and became known as the Coachella Valley Water District.

Today, when heavy rains lead to flooding, CVWD is responsible for much of the region's stormwater protection, helping to prevent the loss of life and extensive property damage. Many of the facilities that exist today were built or improved in the 1970s, in cooperation with cities and other agencies following severe floods.

Background

CVWD protects 590 square miles from flooding, with Riverside County Flood Control District responsible for the remaining areas of the valley. There are 16 stormwater channels within CVWD's boundaries. The entire system includes approximately 135 miles of channels built along the natural alignment of dry creeks that naturally flow from the surrounding mountains into the Whitewater River. Along with the channels, a number of dikes and levees have been designed and built to collect rapidly flowing flood water as it pours from the adjacent mountains onto the valley floor.

The backbone of the valley's stormwater protection system is a 50-mile storm channel that runs from the Whitewater area north of Palm Springs to the Salton Sea. The western half of the channel runs along the natural alignment of the Whitewater River that cuts diagonally across the valley to Point Happy in La Quinta. Since the riverbed flattens out naturally in the eastern valley, a man-made storm channel directs flood waters downstream from Point Happy to the Salton Sea.

The entire length of this flood protection facility, known as the Whitewater River/Coachella Valley Stormwater Channel, was built to withstand a standard project flood, or a flow of about 83,000 cubic feet per second. A standard project flood is greater than a 100-Year flood for watersheds greater than ten square miles.

The Coachella Valley is an arid desert region averaging less than four inches of rain per year. However, the surrounding mountains are subject to much higher rainfall rates which can produce unpredictable, damaging, and even deadly flash flooding events throughout the Coachella Valley.

As a result of a number of damaging flooding events, the Coachella Valley Storm Water District (Storm Water District) was formed in 1915 to control regional flooding. It is reported that a flood in 1916 was particularly devastating. Indio had a sheet of water a mile wide. Water was two feet deep or more on Fargo Street. Coachella, Thermal, and Mecca were under water and many miles of county roads were damaged or left in

The map below depicts the numerous watershed areas that drain into the Coachella Valley, along with Coachella Valley Water District’s Stormwater Unit Boundaries. RCFCWCD on the map refers to Riverside County Flood Control and Water Conservation District.



With the merger of the Coachella Valley Storm Water District and the Coachella Valley County Water District, the District gained the designation of “Stormwater Unit”. This designation gives CVWD the ability to raise taxes for bonds, indebtedness, works, improvements, and functions authorized by the Storm Water District Act of 1909. This tax levy remains in effect today and is part of the 1% of assessed value that the counties of Riverside and Imperial impose and collect from property owners.

Stormwater protection is funded primarily by local property taxes. Property values reset each time there is a change in ownership, with the value being established at the sales price. In addition, values can increase each year based on CPI, up to 2%. In fiscal 2018, assessed values increased 4.7% from fiscal 2017 in the Stormwater Unit boundary.

With property taxes being the main revenue source, it limits expansion of the stormwater system. The Thousand Palms area and rural areas in the eastern Coachella Valley from Oasis to Salton City do not currently have flood protection. However, the District is preparing master planning documents to determine the need and future implementation schedule.



In 1937, the Coachella Valley Stormwater District of Riverside County was merged into the Coachella Valley Water District. As such, the "Stormwater Unit" had the ability to raise taxes for bonds, indebtedness, works, improvements, and functions authorized by the Storm Water District Act of 1909. This tax levy remains in effect today and is part of the 1% of assessed value that the counties of Riverside and Imperial impose and collect from property owners.

Stormwater protection is funded primarily from local property taxes. Property values reset each time there is a change in ownership, with the value being established at the sales price. In addition, values can increase each year based on CPI, up to 2%. Assessed values in the Stormwater Unit boundary increased 4% from fiscal 2016 to fiscal 2017.

Strategic Initiatives

Fiscal 2018 Stormwater Fund Strategic Plan Initiative Accomplishments:

- **SG 6.3.23:** Completed Phase 1 - West Salton Sea Stormwater Master Plan. This initiative will prepare a plan to protect the West Salton Sea area from flooding which will help facilitate development in this area.

Fiscal 2019 Stormwater Fund Strategic Plan Initiatives:

- **SG 6.1.28:** (Moved from fiscal 2018) - Complete part 1, phase 2 of Asset Management program. This initiative includes providing an asset inventory and condition assessment of the Stormwater facilities.
- **SG 6.3.22:** (Moved from fiscal 2018) - Complete land acquisition for the North Indio Flood Control Project to protect the area from potential flood damage and remove flood insurance requirements for the residents of this area.
- **SG 2.2.3:** Reduce CalPERS Unfunded liability
- **SG 2.2.4:** Establish Grant Funding Management Plan
- **SG 6.3.15:** Complete improvements within Coachella Valley Stormwater Channel from Avenue 54 to Thermal Drop. This initiative will increase stormwater channel flows in this reach to 100-year flood capacity, which will reduce flood hazard risk in the community.



Fillmore Street Irrigation Ditch Project

Stormwater Fund
Statement of Revenues, Expenses, and Changes in Reserves

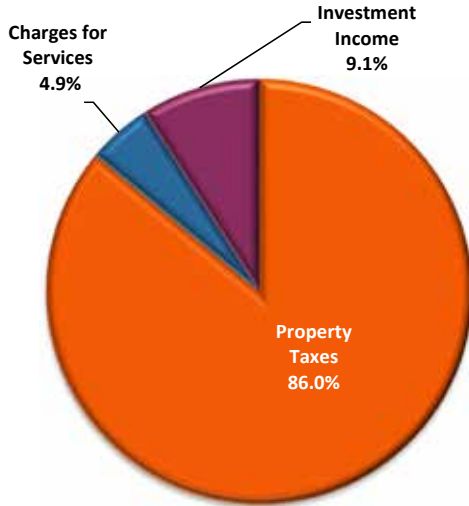
	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Property Taxes	16,633,000	16,640,000	17,344,000	17,283,000	643,000	3.9
Charges for Services	999,000	976,000	1,028,000	976,000	-	-
Investment Income	1,543,000	1,533,000	1,656,000	1,842,000	309,000	20.2
Total Revenues	19,175,000	19,149,000	20,028,000	20,101,000	952,000	5.0%
Expenses						
Salaries & Benefits (net of capitalized labor)	3,195,000	3,203,000	2,957,000	3,375,000	172,000	5.4
Supplies & Services	3,738,000	4,082,000	3,609,000	4,317,000	235,000	5.8
Utilities	211,000	109,000	82,000	104,000	(5,000)	(4.6)
Capital Outlay	25,000	53,000	51,000	156,000	103,000	194.3
Total Expenses	7,169,000	7,447,000	6,699,000	7,952,000	505,000	6.8%
Operating Income (Loss)	12,006,000	11,702,000	13,329,000	12,149,000	447,000	3.8%
Nonoperating Revenues (Expenses)						
Capital Improvement Program	(9,443,000)	(15,612,000)	(8,626,000)	(20,001,000)	(4,389,000)	(28.1)
Contribution to Motorpool CIP	(536,000)	(578,000)	(322,000)	(365,000)	213,000	36.9
Capital Improvement Reimbursements	-	-	1,280,000	-	-	-
Insurance Proceeds	(519,000)	-	531,000	-	-	-
Grant Revenue	6,000	-	63,000	50,000	50,000	-
CalPERS Liability Buy-down	-	-	-	(1,067,000)	(1,067,000)	-
Total Nonoperating Revenues (Expenses)	(10,492,000)	(16,190,000)	(7,074,000)	(21,383,000)	(5,193,000)	(32.1%)
Increase (Decrease) in Cash Flow	1,514,000	(4,488,000)	6,255,000	(9,234,000)	(4,746,000)	(105.7)
Beginning Reserves						
Transfer From/(To) Other Funds	-	-	118,000	-	-	-
Ending Reserves	117,548,000	113,060,000	123,921,000	114,687,000	1,627,000	1.4%

Budget Summary

Ending reserves are budgeted at \$114.7 million, an increase of 1.4% based on increased property tax revenues and an increase in investment income. Stormwater reserves are fully funded according to the adopted Reserve Policy. The expense budget for fiscal 2019 reflects a 6.8% increase as compared to fiscal 2018, with budgeted revenues increasing 5.0%.

Revenues

Operating Revenues
\$20,101,000



Property Taxes account for 86% of revenues in the Stormwater Fund. Property tax revenues represent the District’s dedicated share of the 1% Riverside and Imperial counties secured property tax levy for the Stormwater Unit, pursuant to the California Revenue and Taxation Code. Assessed values and resale values have been on the rise, which accounts for the increase in budgeted revenue.

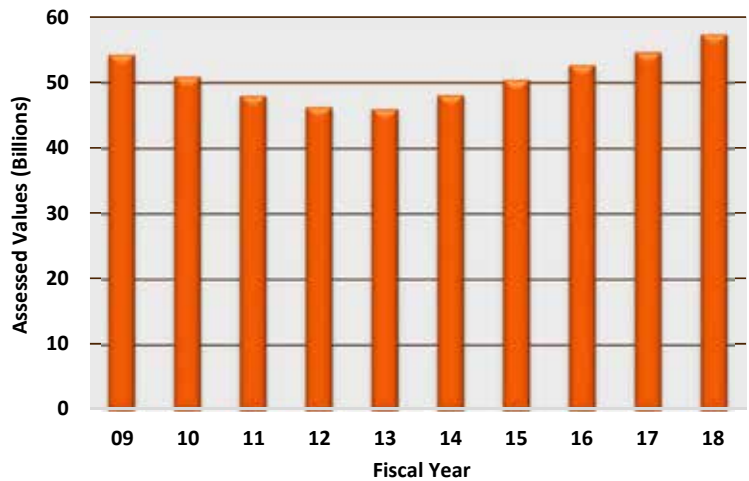
The graph to the right depicts a ten year history of the assessed values within the Stormwater boundaries.

There was a steady decline in assessed valuation from 2009 through 2013. However, since 2014 assessed values have continued to increase. This has contributed to increased revenue for the Stormwater Fund.

Investment Income is generated on available cash balances in the fund and is a function of the reserve balance and interest rates. Interest rates have been relatively low for several years, but have increased slightly. Investment income is budgeted at approximately \$1.8 million in fiscal 2019 and accounts for 9.1% of the Stormwater Fund’s total revenues.

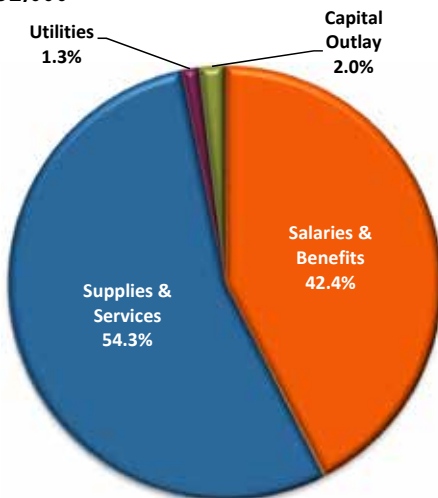
Charges for Services consist mainly of lease revenue from lands owned by the Stormwater Fund. This comprises 4.9% of the revenues of the fund.

Assessed Values - Ten-Year History



Expenses

Operating Expenses
\$7,952,000



Salaries & Benefits are budgeted at \$3.4 million, a 5.4% increase over the fiscal 2018 budget. This increase reflects the impact of additional staff, as well as some modest increases in employee salaries and an increase in the CalPERS rate.

Supplies & Services are increasing 5.8% to \$4.3 million. There are no major contributors to the increase in budget.

Utilities are budgeted to decrease 4.6%, which more accurately reflects the actual water used by trucks for dust control when working in the stormwater channel.

Capital Outlay is budgeted at \$156,000 in fiscal 2019.

Capital Improvements

There are \$20 million in capital improvement projects budgeted in fiscal 2019, with all funding coming from unrestricted reserves. Projects continue to focus on regional flood control master planning, design of wetlands, replacement of evacuation channels, levee certifications, and flood easement renewals. The Thousand Palms area and rural areas in the eastern Coachella Valley, do not currently have flood protection. The budget includes \$8.1 million in regional flood control systems in North Indio, \$6.5 million in wasteway channel improvements, \$1.8 million for Coachella Valley Stormwater Channel Bank Protection- Avenue 62 to Avenue 64 and Fillmore Ditch Outfall, as well as several smaller projects to improve stormwater protection in the east valley.

More details on the Capital Improvement Plan are located in the Capital Improvements chapter.

Stormwater Fund Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Property Taxes - General	17,283,000	17,579,000	17,883,000	18,196,000	18,518,000
Charges for Services	976,000	976,000	976,000	976,000	976,000
Investment Income	1,842,000	2,135,000	1,771,000	1,334,000	788,000
Total Revenues	20,101,000	20,690,000	20,630,000	20,506,000	20,282,000
% Change From Prior Year		2.9%	(0.3%)	(0.6%)	(1.1%)
Expenses					
Salaries & Benefits (net of capitalized labor)	3,375,000	2,906,000	3,224,000	3,473,000	4,474,000
Supplies & Services	4,317,000	4,403,000	4,491,000	4,581,000	4,673,000
Utilities	104,000	110,000	116,000	123,000	130,000
Capital Outlay	156,000	156,000	156,000	156,000	156,000
Total Expenses	7,952,000	7,575,000	7,987,000	8,333,000	9,433,000
% Change From Prior Year		(4.7%)	5.4%	4.3%	13.2%
Operating Income (Loss)	12,149,000	13,115,000	12,643,000	12,173,000	10,849,000
% Change From Prior Year		8.0%	(3.6%)	(3.7%)	(10.9%)
Nonoperating Revenues (Expenses)					
Capital Improvement Budget	(20,001,000)	(43,222,000)	(39,401,000)	(38,196,000)	(12,182,000)
Contribution to Motorpool CIP	(365,000)	(717,000)	(626,000)	(290,000)	(378,000)
CalPERS Liability Buy-down	(1,067,000)	-	-	-	-
Grant Revenue	50,000	-	-	-	-
Total Nonoperating Revenues (Expenses)	(21,383,000)	(43,939,000)	(40,027,000)	(38,486,000)	(12,560,000)
Increase (Decrease) in Cash Flow	(9,234,000)	(30,824,000)	(27,384,000)	(26,313,000)	(1,711,000)
Beginning Reserves	123,921,000	114,687,000	83,863,000	56,479,000	30,166,000
Ending Reserves	114,687,000	83,863,000	56,479,000	30,166,000	28,455,000
% Change From Prior Year		(26.9%)	(32.7%)	(46.6%)	(5.7%)

Five-Year Forecast

Property taxes are budgeted to increase every year through the forecast period, mainly due to increases in assessed values, which increases property tax revenues each year. Investment income is budgeted to decrease as a result of substantial capital spending, which significantly reduces reserves. Overall, operating expenses are increasing over the forecast period due to increases in salaries & benefits and supplies & services.

The biggest challenge facing the Stormwater Fund over the next five years is funding the Capital Improvement Plan. There are approximately \$153 million in capital improvements in the five-year forecast, with continued construction of major projects planned beyond that. The District is currently preparing a five-year Stormwater grant and loan funding plan for capital improvements. In addition, the District will consider debt issuance, to ensure the District pursues the best possible option to fund these projects since the tax rate can only be increased with a two-thirds vote of the populace.

Reserves are fully funded through fiscal 2021, but are projected to be slightly below target beginning in fiscal 2022 as a result of significant capital spending.



Flash flooding at a golf course

*Nonpotable Water
Fund*



History

Coachella Valley Water District initially started providing nonpotable water in 1968, with the acquisition of Water Reclamation Plant 9 (WRP 9). Previously known as Palm Desert Country Club's wastewater treatment and recycling facility, WRP 9 provided Palm Desert Country Club with recycled water for golf course irrigation. Since that time, the District has continued to expand the use of recycled water.

In 1987, CVWD expanded nonpotable operations with delivery of nonpotable water to Santa Rosa, Palm Desert Greens, and Portola Country Clubs from WRP 10. In 1997, the District began delivering nonpotable water to Sun City from WRP 7.

Previously, nonpotable water was strictly reclaimed wastewater (recycled water). Currently, nonpotable water includes not only recycled water, it also includes Colorado River water (canal water) via the Mid-Valley Pipeline (MVP), or a blend of recycled water and canal water.



This photo from 1975 shows WRP 9, CVWD's first plant producing recycled water

Canal water is a critical component of nonpotable water since there is not sufficient recycled water available to irrigate all of the valley's golf courses on a year-round basis. Most of the Valley's recycled water is produced in the winter, when the snowbirds are here. But golf course water demand is highest during the summer, when the Valley's population is at its lowest, temperatures are at their highest, and recycled water supplies are reduced. Thus, canal water is needed to make up the difference.

In 2009, the District completed the first phase of the Mid-Valley

Pipeline. The 54-inch, 6.8 mile long pipeline is buried more than 20 feet below the Coachella Valley Stormwater Channel and delivers Colorado River water to customers and Wastewater Reclamation Plant 10, where it can be used both for groundwater replenishment and golf course irrigation. Initially, the MVP provided a reliable supply of nonpotable water year-round to 13 customers already using recycled water for at least some of their irrigation.

Customers whose properties are adjacent to the MVP are able to connect directly and receive strictly Colorado River water. The balance of the Colorado River water delivered by the MVP to WRP 10 is received into a 65 acre-foot storage reservoir and capable of being pumped into a 45 acre-foot (af) blending reservoir, where it could be mixed with recycled water. This water is subsequently delivered to nonpotable customers for irrigation purposes.

In 2018, 16 golf courses, 5 homeowner's associations (HOAs), 1 high school, and the District's facilities in Palm Desert and WRPs 7 and 10 received some form of nonpotable water. The Mid-Valley Pipeline is a critical component of the nonpotable water system. In the coming years, the MVP will be expanded to help meet the increasing demands for nonpotable water and reduce the amount of groundwater pumped from the aquifer. Conversion of golf courses to a water supply other than groundwater is one of the major source substitution projects identified in the Water Management Plan (WMP).

Background

The Nonpotable Water Fund accounts for water sales and related expenses incurred in delivering and promoting the use of recycled water and Colorado River water delivered by the MVP for uses such as golf courses and large landscapes.

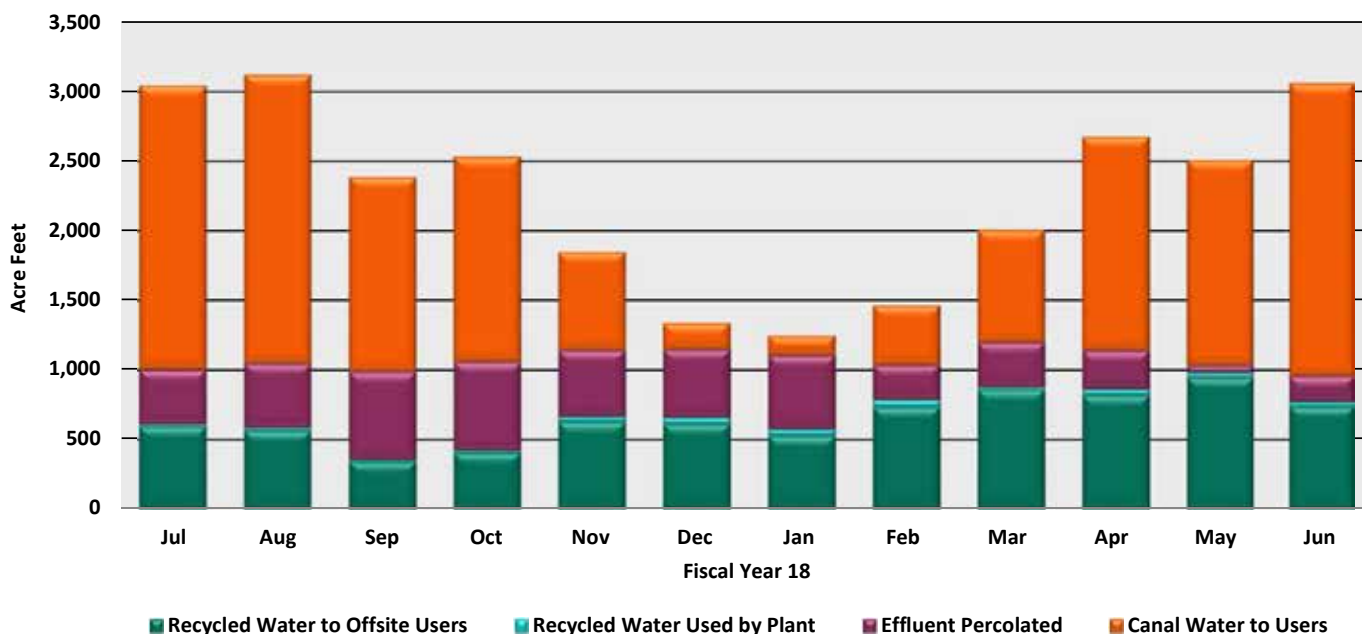
Today, Coachella Valley Water District recycles more than 2 billion gallons of wastewater each year.

Wastewater is subjected to an advanced multi-step treatment process that disinfects and filters microscopic particles, organic chemicals, and pathogens from the water, bringing it to a tertiary level. This treatment improves the water quality to a high enough level for full-body contact and irrigation purposes, but not for human consumption.

Recycled water is a safe alternative when the guidelines are followed and it is used for its intended purpose. Recycled water must meet strict water quality standards outlined in Title 22, Chapter 3, Division 4 of the California Code of Regulations. In order to make sure that CVWD's reclamation plants are meeting Title 22 standards, every day a recycled water sample is collected and analyzed for total coliform bacteria. Also, chlorine residual, modal contact time, and turbidity are continuously monitored.

The graph below shows the amount of recycled water produced, and highlights the amount of canal water required in the summer months to meet demands for nonpotable water in fiscal 2018. During the winter months, the Valley's population increases due to the influx of snowbirds, so less canal water is required to augment the recycled water supply.

Distribution of Nonpotable Water Sources by Month



2019 Nonpotable Water Fund

All nonpotable capital improvement projects for fiscal 2019 are being funded by the Sanitation Fund. The expansion of the nonpotable water system is seen as a more cost effective method of disposing of effluent water than potentially having to further treat effluent water to meet additional restrictions on total nitrogen concentrations and salt, thus, Sanitation is providing the funding.

The five-year Capital Improvement Plan (CIP) includes the westward expansion of the distribution system to provide the canal/recycled water blend to golf courses and large landscape customers in Palm Desert and Rancho Mirage. Currently, these customers use groundwater. Converting customers to nonpotable water significantly reduces demand on the

aquifer, making more groundwater available Valley-wide for drinking. Future plans include extending the Mid-Valley Pipeline westward to serve additional golf courses with Colorado River water. In addition, the Nonpotable Water Master Plan includes an expansion of the distribution system from the eastern section of the Mid-Valley Pipeline to serve customers in Indian Wells with Colorado River water.

The following table shows projected nonpotable water connections over the next five plus years. All projected connections that use only canal water, other than those off the Mid-Valley Pipeline, have been excluded from this schedule as they will actually be considered canal water customers instead of nonpotable water customers.

Projected Nonpotable Water Connection Schedule						
	2019	2020	2021	2022	2023	Out Years
Rancho La Quinta Golf Course	X					
La Quinta Irrigation Distribution Improvements	X					
Emerald Desert Country Club Connection		X				
Marriott Desert Springs North Course Connection		X				
Marriott Shadow Ridge Connection		X				
Palm Desert Resort Country Club			X			
Southwest Community Church/Gerald Ford School			X			
The Oasis Country Club			X			
Woodhaven Country Club Connection			X			
Bermuda Dunes Country Club			X			
Indian Wells Tennis Garden Connection			X			
Palm Royale Country Club			X			
Shadow Hills North Golf Course				X		
Desert Island Country Club					X	
El Dorado Country Club					X	
Indian Wells Country Club (Cove and Classic)					X	
La Rocca Condominiums Resort					X	
Mission Hills Country Club					X	
Rancho Mirage Country Club					X	
Suncrest Country Club Connection					X	
Sunnylands Golf Course and Estate					X	
Tamarisk Country Club					X	
The Springs Country Club					X	
Chaparral Country Club Connection						X
Date Palm Country Club						X
Eagle Falls Golf Course						X
Forest Lawn						X
Marrakesh Country Club						X
Marriott Rancho Las Palmas Country Club						X
Monterey Country Club						X
Morningside Country Club						X
Outdoor Resort RV Park						X
PGA West Weiskopf Golf Course						X
Porcupine Creek Private Country Club						X
Rancho Casa Blanca						X
Shadow Mountain Country Club						X
Sunrise Country Club						X
The Quarry Country Club & Golf Course						X
Thunderbird Country Club						X
Westin Mission Hills Country Club						X
Vintage Country Club						X

Consumption

Nonpotable water consumption has continued to increase year after year as depicted in the table below. With nonpotable water use being a critical component of the District's Water Management Plan, consumption will continue to grow.

Nonpotable Water Consumption

Total Consumption in Acre Feet	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
FY 2018	2,635	2,638	1,740	1,880	1,337	805	668	1,164	1,669	2,357	2,420	2,841	22,155
FY 2017	2,498	2,254	1,338	1,526	1,194	645	273	668	1,506	2,004	2,257	2,434	18,597
FY 2016	1,792	1,952	1,218	1,417	1,212	793	572	1,136	1,537	1,845	2,645	2,447	18,566
FY 2015	1,930	1,595	1,100	1,184	873	376	654	857	1,238	1,552	1,502	1,933	14,793
FY 2014	1,636	1,380	1,060	1,317	845	602	667	685	1,053	1,445	1,625	1,985	14,300
FY 2013	1,522	1,147	1,138	1,348	918	454	547	665	1,152	1,327	1,473	1,747	13,436
FY 2012	1,109	985	610	690	443	365	426	414	538	783	823	1,124	8,310
FY 2011	1,046	972	669	408	551	216	317	268	573	862	1,076	1,202	8,160
FY 2010	979	963	558	433	377	220	181	235	508	699	999	1,053	7,204
FY 2009	689	716	446	518	417	145	224	176	415	625	842	813	6,028
Total	15,836	14,603	9,876	10,720	8,167	4,620	4,528	6,267	10,191	13,498	15,661	17,580	131,549

Average Consumption	1,584	1,460	988	1,072	817	462	453	627	1,019	1,350	1,566	1,758	13,155
Monthly Variance From Prior Year	5.5%	17.0%	30.1%	23.2%	12.0%	24.7%	144.9%	74.2%	10.8%	17.6%	7.3%	16.7%	
YTD Variance From Prior Year	5.5%	11.0%	15.2%	16.8%	16.1%	16.7%	20.3%	23.8%	22.1%	21.5%	19.5%	19.1%	36.4%
Monthly % of Total Average Consumption	12.0%	11.1%	7.5%	8.1%	6.2%	3.5%	3.4%	4.8%	7.7%	10.3%	11.9%	13.4%	
YTD Rate of Average Consumption	12.0%	23.1%	30.6%	38.8%	45.0%	48.5%	52.0%	56.7%	64.5%	74.7%	86.6%	100.0%	

Rates

The District conducted a financial and rate study for the purpose of determining uniform rates for nonpotable customers. Because each customer signs a Nonpotable Water Agreement, the rates are not subject to Proposition 218.

The new rates that were established are based on the customer's alternate supply of water. Customers are divided into three types: A, B, and C. Type A customers are those whose alternate source of water is groundwater (domestic water) in the West Whitewater River Subbasin Area of Benefit (West). The rate for fiscal 2019 will be calculated at 85% of the West replenishment assessment charge (RAC) combined with the cost to pump groundwater (pumping charge). Type B customers use recycled water from WRP 7. Their alternate source of water is from the Coachella Canal. Type B customers' rate is calculated at the Canal Class 2 rate, plus the Quagga Mussel Surcharge. For more information on these Canal rates see the Canal Water Fund section of this chapter. Type C customers are directly connected to the MVP. Their alternate source of water is groundwater in the East Whitewater River Subbasin Area of Benefit (East). The rate is calculated at 85% of the East RAC combined with the cost to pump groundwater (pumping charge). Rates for fiscal 2019 are shown in the above table.

Nonpotable Water Rates

Type A - Customer Rate	
West RAC rate per acre-foot - July 1, 2018	143.80
Pumping Charge (PC) per acre-foot - July 1, 2018	54.57
Total	198.37
85% of Total	168.61

Type B - Customer Rate	
Canal Class 2 Rate - July 1, 2018	102.12
Quagga Mussel Surcharge - July 1, 2018	2.78
Total Rate Per Acre-Foot	104.90

Type C - Customer Rate	
East RAC rate per acre-foot - July 1, 2018	66.00
Pumping Charge (PC) per acre-foot - July 1, 2018	35.70
Total	101.70
85% of Total	86.45

Strategic Initiatives

Fiscal 2018 Nonpotable Water Fund Strategic Plan Initiative Accomplishments:

- **SG 3.2.13:** Began implementation of the Nonpotable Water Master Plan

Fiscal 2019 Nonpotable Water Fund Strategic Plan Initiatives:

- **SG 2.2.3:** Reduce CalPERS Unfunded liability
- **SG 2.2.4:** Establish Grant Funding Management Plan

Nonpotable Water Fund Statement of Revenues, Expenses, and Changes in Reserves

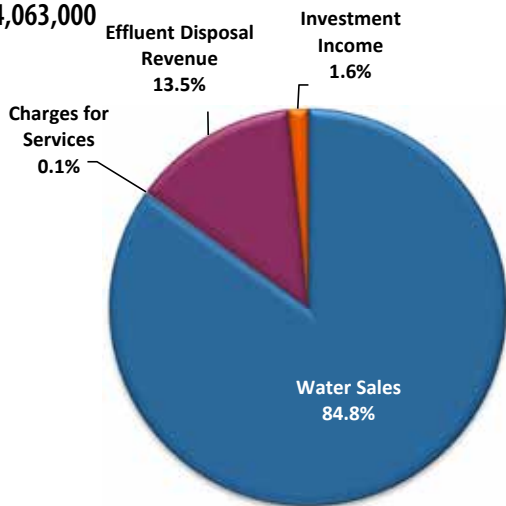
	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Water Sales	2,530,000	4,051,000	3,390,000	3,443,000	(608,000)	(15.0)
Charges for Services	3,000	10,000	2,000	5,000	(5,000)	(50.0)
Effluent Disposal Revenue	466,000	600,000	515,000	550,000	(50,000)	(8.3)
Investment Income	57,000	58,000	51,000	65,000	7,000	12.1
Total Revenues	3,056,000	4,719,000	3,958,000	4,063,000	(656,000)	(13.9%)
Expenses						
Salaries & Benefits (net of capitalized labor)	740,000	960,000	862,000	1,189,000	229,000	23.9
Supplies & Services	538,000	892,000	866,000	640,000	(252,000)	(28.3)
Utilities	268,000	263,000	312,000	414,000	151,000	57.4
Water Purchases	824,000	1,302,000	1,462,000	1,521,000	219,000	16.8
QSA Mitigation	-	1,178,000	1,178,000	2,599,000	1,421,000	120.6
Capital Outlay	1,000	179,000	178,000	24,000	(155,000)	(86.6)
Total Expenses	2,371,000	4,774,000	4,858,000	6,387,000	1,613,000	33.8%
Operating Income (Loss)	685,000	(55,000)	(900,000)	(2,324,000)	(2,269,000)	(4125.5%)
Nonoperating Revenues (Expenses)						
Debt Service - Interfund	(129,000)	(129,000)	(129,000)	(129,000)	-	-
Contribution to Motorpool CIP	(13,000)	(187,000)	(184,000)	(25,000)	162,000	86.6
CalPERS Liability Buy-down	-	-	-	(305,000)	(305,000)	-
Total Nonoperating Revenues (Expenses)	(142,000)	(316,000)	(313,000)	(459,000)	(143,000)	(45.3%)
Increase (Decrease) in Cash Flow	543,000	(371,000)	(1,213,000)	(2,783,000)	(2,412,000)	(650.1)
Beginning Reserves						
Transfer From/(To) Other Funds	-	-	27,000	-	-	-
Ending Reserves	4,244,000	3,873,000	3,058,000	275,000	(3,598,000)	(92.9%)

Budget Summary

The fiscal 2019 budget reflects a decrease in reserves of \$3.6 million. This decrease is mainly a result of \$2.6 million in Quantification Settlement Agreement (QSA) Mitigation expenses, a decrease in budgeted water sales with no additional connections added in fiscal 2018, and no additional connections budgeted for fiscal 2019. The Nonpotable Water Fund's proportionate share of the QSA Mitigation expenses increased \$1.4 million in fiscal 2019, with the largest payment over the term of the QSA agreement. All capital improvement expenses for expansion of the nonpotable system and development of new connections are being accounted for in the Sanitation Fund, in order to avoid the cost of additional treatment of effluent water.

Revenues

Operating Revenues
\$4,063,000

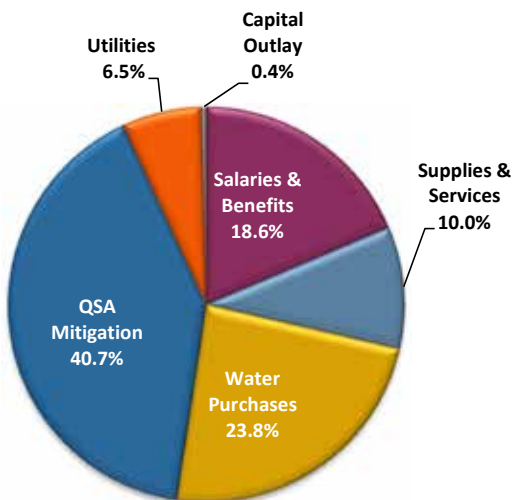


Water Sales account for 84.8% of the operating revenues of the Nonpotable Water Fund.

Effluent Disposal Revenues are generated based on the amount of tertiary water produced at WRP 7 and WRP 10. The Sanitation Fund pays the Nonpotable Water Fund for the avoided cost of having to dispose of the water.

Expenses

Operating Expenses
\$6,387,000



Salaries & Benefits amount to \$1.2 million. This is an increase compared to fiscal 2018, due to the addition of new personnel, modest increases in employee salaries, and an increase in the CalPERS rate.

Supplies & Services are budgeted at \$640,000, a decrease of 28.3%. The decrease in professional services was in part due to a one-time charge of \$148,000 for the replacement of transformers and a soft starter for the Mid-Valley pump station in fiscal 2018. With the project now complete, the budget has been reduced. In addition, there is a decrease of \$26,000 in professional services associated with the asset management plan, which was also a one-time charge.

Utilities are budgeted at \$414,000, an increase of 57.4% from fiscal 2018. This is mainly the result of the Mid-Valley Pump Station operating larger pumps with increased frequency for the new Palm Desert Replenishment Facility.

Water Purchases are budgeted to increase by 16.8% to \$1.5 million. This increase is mainly the result of an increase in water purchased from the Canal Water Fund, in order to satisfy demand.

QSA Mitigation costs are budgeted at \$2.6 million, an increase of over \$1.4 million. The Nonpotable Water Fund is responsible for a proportionate share of the QSA Mitigation costs since its source of water is the QSA water from the Coachella Canal. This year is the largest payment over the duration of the agreement.

Debt Service, a nonoperating expense, is budgeted at \$129,000, and is the principal and interest payment on a 20-year interfund loan from the Sanitation Fund for the construction of a pipeline connection to the Classic Club.

Five-Year Forecast

The five-year forecast includes a slight increase in revenue from additional connections to the nonpotable water system in fiscal years 2020-2023. However, no rate increases are included. Along with new connections, come increases in expenses like water purchases and electricity.

Overall, operating losses decrease during the five-year forecast period. Revenues and expenses are fairly steady with the exception of QSA Mitigation payments which range from as high as \$2.6 million in fiscal 2019 to as low as \$221,000 in fiscal 2021, back up to \$859,000 in fiscal 2023.

Reserves fall below the Reserve Policy in fiscal 2019. Without rate increases, by fiscal 2023 reserves are budgeted to be \$1.5 million below target. Lack of reserves in the Nonpotable Water Fund are preventing Nonpotable from entering into an interfund loan agreement with the Domestic Water Fund in order to pay back the costs of construction for the Mid-Valley Pipeline, which was funded by the Domestic Water Fund in 2009.

Nonpotable Water Fund Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Water Sales	3,443,000	3,817,000	4,044,000	4,289,000	4,554,000
Charges for Services	5,000	5,000	5,000	5,000	5,000
Effluent Disposal Revenue	550,000	550,000	550,000	550,000	550,000
Investment Income	65,000	5,000	1,000	5,000	(4,000)
Total Revenues	4,063,000	4,377,000	4,600,000	4,849,000	5,105,000
% Change From Prior Year		7.7%	5.1%	5.4%	5.3%
Expenses					
Salaries & Benefits (net of capitalized labor)	1,189,000	1,257,000	1,318,000	1,383,000	1,449,000
Supplies & Services	640,000	653,000	666,000	679,000	693,000
Utilities	414,000	426,000	438,000	451,000	464,000
Water Purchases	1,521,000	1,586,000	1,655,000	1,727,000	1,803,000
QSA Mitigation Payments	2,599,000	506,000	221,000	831,000	859,000
Capital Outlay	24,000	24,000	24,000	24,000	24,000
Total Expenses	6,387,000	4,452,000	4,322,000	5,095,000	5,292,000
% Change From Prior Year		(30.3%)	(2.9%)	17.9%	3.9%
Operating Income (Loss)	(2,324,000)	(75,000)	278,000	(246,000)	(187,000)
% Change From Prior Year		96.8%	470.7%	(188.5%)	24.0%
Nonoperating Revenues (Expenses)					
Debt Service - Interfund	(129,000)	(129,000)	(129,000)	(129,000)	(129,000)
Contribution to Motorpool CIP	(25,000)	(3,000)	(3,000)	(7,000)	(3,000)
CalPERS Liability Buy-down	(305,000)	-	-	-	-
Total Nonoperating Revenues (Expenses)	(459,000)	(132,000)	(132,000)	(136,000)	(132,000)
Increase (Decrease) in Cash Flow	(2,783,000)	(207,000)	146,000	(382,000)	(319,000)
Beginning Reserves	3,058,000	275,000	68,000	214,000	(168,000)
Ending Reserves	275,000	68,000	214,000	(168,000)	(487,000)
% Change From Prior Year		(75.3%)	214.7%	(178.5%)	189.9%

Water Replenishment Funds



Background

Decline in the Valley's water table was first noted in the 1910s, when local residents and farmers were concerned that their artesian wells were drying up. When CVWD was formed in 1918, its first actions included obtaining water rights and building facilities near Windy Point to capture natural runoff from nearby mountains to help replenish the aquifer and to seek a supplemental water supply for the Coachella Valley. The Valley's high mountains provide a barrier, or rain shadow, against coastal storms. This effect renders the area a desert, averaging less than four inches of rain per year. This rainfall, along with snowmelt from surrounding mountains, is not enough to replenish what is pumped from the groundwater basin to meet the water demands of the Valley.

There are numerous "producers," including CVWD, that extract groundwater by pumping well water or diverting surface water for direct use. A producer is a well owner or operator that pumps water from the aquifer, such as: water agencies, golf courses, farmers, landowners, and other entities that operate wells within the groundwater replenishment areas of benefit (AOB) and extract greater than 25 acre-feet (af) in a 12-month period. The State Water Code allows CVWD and Desert Water Agency (DWA) to levy and collect groundwater replenishment assessment charges (RACs) in the Coachella Valley. RACs were levied by CVWD for the first time in fiscal year (FY) 1981 on groundwater producers

in the West Whitewater River Subbasin AOB (West AOB). Beginning in FY 2004, RACs were levied in the Mission Creek Subbasin AOB (MC AOB); and in FY 2005, RACs were levied in the East Whitewater River Subbasin AOB (East AOB).

The replenishment activities of these subbasins are accounted for in three separate enterprise funds. The replenishment assessment charges cover a portion of the costs of importing supplemental water for replenishment, operation, and maintenance of the replenishment basins, and various administrative costs, such as billing, meter reading, report preparation, and the costs for programs that provide incentives to use nonpotable water sources in place of groundwater.

Overdraft

To alleviate groundwater overdraft, CVWD and DWA import water to replenish the western portion of the Whitewater River Subbasin and the Mission Creek Subbasin. In addition, CVWD uses imported water to replenish the eastern portion of the Whitewater River Subbasin. These replenishment programs are a key element of the Coachella Valley Water Management Plans that include water conservation, additional imported water acquisition, water reclamation, and source substitution. In 2017, average groundwater levels increased in the West Whitewater and East Whitewater areas of benefit. Engineers have estimated that if CVWD continues to implement the activities enumerated in the Coachella Valley Water Management Plans, overdraft will be eliminated by 2022.



Grading for the new replenishment facility in Palm Desert

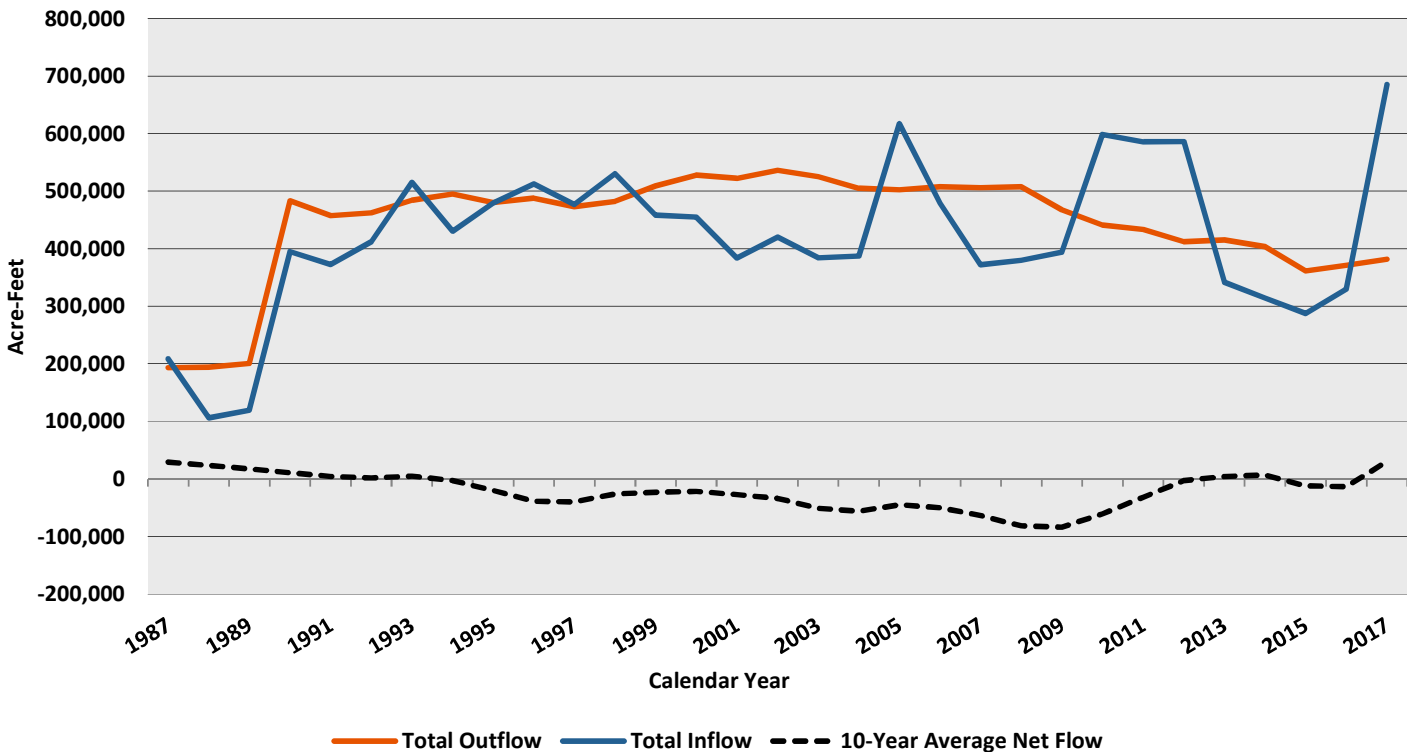
Groundwater Replenishment

Soon after its formation in 1918, CVWD constructed facilities in the Whitewater River channel near Windy Point to help replenish the Whitewater River (Indio) Subbasin with water naturally flowing from the Whitewater River Canyon. In 1973, CVWD and DWA installed new facilities and began replenishing groundwater within this subbasin with imported water from the State Water Project (SWP). CVWD and DWA began replenishing groundwater in the adjacent Mission Creek Subbasin with this same imported water supply in 2002. In 2009, after 12 years of successful pilot tests, CVWD began operating a full-scale facility using Colorado River water to replenish groundwater in the eastern portion of the Whitewater River Subbasin. Because CVWD does not have a direct connection from the SWP, CVWD and DWA entered into agreements with the Metropolitan Water District (MWD) of Southern California to exchange water from MWD's Colorado

River Aqueduct and receive advanced deliveries of this imported water supply. As can be seen in the graph below, the volume of annual water deliveries (inflows) can be highly variable.

The graph also shows the combined inflows and outflows to the Whitewater River (Indio) Subbasin and the Mission Creek Subbasin, and the combined ten-year average groundwater storage change in these subbasins. Total inflows include natural replenishment from stream flows and precipitation, subsurface inflows, artificial replenishment, and nonconsumptive return flows. Total outflows include subsurface outflows, drainage outflows to the Salton Sea, evapotranspiration, and groundwater production. Total inflows for 2017 increased partially due to the Metropolitan Water District of Southern California delivering approximately 285,000 af of water to the West Whitewater Replenishment Facility as part of the 1984 Advance Delivery Agreement between CVWD, DWA and MWD.

Whitewater River (Indio) and Mission Creek Subbasins Inflows and Outflows



Colorado River Water

Recognizing the need to supplement natural replenishment with imported water, CVWD began efforts to import Colorado River water to the Coachella Valley and approved its first contract with the federal government in 1919 for the survey of the All American Canal route. Bringing imported water to the region required a massive waterway that did not yet exist. The 1928 Boulder Canyon Act authorized construction of Hoover Dam, Lake Mead, Imperial Dam, the All American Canal, and its 123-mile Coachella Branch. The Coachella Canal was completed in 1949, which conveyed approximately 300,000 af/yr primarily to serve farms; this enabled the agricultural industry to reduce pumping of groundwater and help preserve the Coachella Valley groundwater basin.

The Quantification Settlement Agreement (QSA) was signed in 2003, providing CVWD with a secured Colorado River gross delivery allotment of 488,000 af/yr. Additional information regarding Colorado River water and the QSA is located in the Canal Water Fund section of this chapter.

What is the State Water Project?

The State Water Project is the nation's largest state-built water and power development and conveyance system. It is a water storage and delivery system consisting of 34 reservoirs and lakes, 701 miles of aqueducts, 5 power plants, and 24 pumping plants delivering water to 29 urban and agricultural water suppliers in California, providing water to 25 million Californians and 750,000 acres of irrigated farmland. The design delivery volume of the SWP is approximately 4.2 million af (maf), with approximately 70% delivered to urban users and 30% delivered to agricultural users.

The primary purpose of the SWP is water supply – that is, to divert, store, and distribute water to areas of need in California. Other purposes include flood control, power generation, recreation, fish and wildlife enhancement, and water quality improvement in the Sacramento-San Joaquin Delta (Delta). The Delta is an ecologically sensitive region where two of California's largest rivers meet, the Sacramento River and the San Joaquin River, and is the hub of the State's water distribution system. It is comprised of 738,000 acres of land and is one of the few estuaries in the world that is used as a major source of drinking water supply.

State Water Project and CVWD

On March 29, 1963, CVWD entered into a water supply contract with the State of California Department of Water Resources (DWR), becoming one of the original 29 State Water Project

contractors. This action entitled CVWD to certain amounts of water from the SWP (currently at 138,350 af/yr) to replenish the Coachella Valley groundwater basin. Because the Coachella Valley lacks a means of bringing SWP water directly to its service area, a "bucket for bucket" exchange agreement was reached with the Metropolitan Water District of Southern California. This agreement allows CVWD to trade SWP water to MWD for equal amounts of Colorado River water delivered to the Whitewater River and Mission Creek Groundwater Replenishment facilities, through MWD's Colorado River Aqueduct. The exchange water is used to replenish the Whitewater River and Mission Creek groundwater subbasins, reducing overdraft and ensuring a reliable water supply for the Coachella Valley.

Cost of the State Water Project

All 29 SWP contractors pay in proportion to their water supply allocations to cover the cost of constructing and operating facilities, which store and transport the water supply. Each contractor pays an additional transportation charge, which covers the cost of facilities required to deliver water to its service area. Contractors such as CVWD, who are farther away from the Delta, pay higher transportation charges than those close to the Delta.

Full payments are made each year for fixed SWP costs, regardless of the annual variations in water deliveries. Fixed costs include the charges for operation, maintenance, and debt service. Contractors also pay costs that vary depending on the amount of water delivered during the year, including costs for energy used to pump water to their aqueduct turnout location.

Individual SWP contractors may also incur additional costs associated with water storage or delivery structures unique to their needs. One example is the Perris Dam, which is the terminal reservoir on the East Branch of the SWP. Completed in 1972, this 2.2-mile long earthfill dam has a capacity of 131,450 af and serves three SWP contractors: MWD, DWA, and CVWD. A 2005 study showed that additional reinforcement to the dam's foundation was needed in order to meet the current seismic engineering standards. Pending this work, the working water storage elevation was lowered by 25 feet, which greatly reduces the ability to store water. It was proposed that a construction technique known as cement deep soil mixing (CDSM), be used to stabilize the foundation soil of the dam. This, and other ancillary work associated with the seismic stability project, is projected to cost up to \$206 million. CVWD's proportional share has been calculated at approximately \$45 million to be paid over the remainder of the existing contract with DWR that ends in 2035.

CALIFORNIA STATE WATER PROJECT

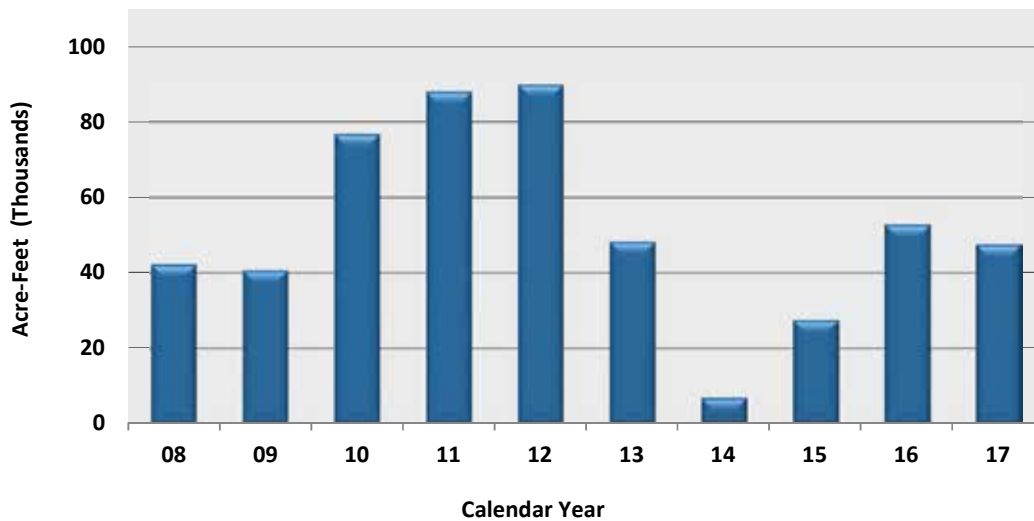


State Water Project Water Availability

Availability of the water supply is highly variable and based on Delta inflows. Water years have been designated by the DWR as “wet,” “above normal,” “below normal,” “dry,” or “critical,” based on the amount of rain and snow that fell during the preceding period from October 1 through September 30, which has a direct impact on the water supply release. DWR hydrologists and meteorologists measure snowpack in the Sierra Nevada on or about the first of January, February, March, April, and May, in the watersheds where most of the state’s water supply originates. Forecasts for snowmelt runoff, and thus, available water supply for the coming spring and summer are made. The latest snowpack survey taken on May 1, 2018, showed water content of the snowpack at 27%, based on a weighted statewide average compared to 190% one year ago.

Table A, which is an exhibit in the State Water Project water supply contract, details the ideal full entitlement of water that a contractor could expect to receive annually, although actual delivery varies from year to year based on hydrology. The current annual water entitlement for CVWD is 138,350 af. The graph below depicts CVWD’s SWP deliveries for the last 10 years, and shows the year-to-year change in reliability of water available. The long-term average delivery reliability from DWR is approximately 60% of the total entitlement. The Coachella Valley Water Management Plan uses 50% average delivery reliability in its projections.

**State Water Project - Table A
CVWD's Ten-Year History of Deliveries**



The SWP operates on a calendar year basis; the budgeted water allocation for 2018 is 35%, which is 48,422 af of water for CVWD. Pumping restrictions in the Delta also limit the reliability of SWP supplies. The Delta pumps are turned off at various times throughout the year to limit salinity intrusion and protect threatened and endangered species in the Delta.

State Water Project Challenges

The Delta faces numerous challenges to its long-term sustainability, and includes the continued subsidence of Delta islands, many of which are already below sea level. Another related threat is from the potential of catastrophic levee failure, as water pressure increases on fragile dirt levees. Climate change threatens to increase the variability in floods and droughts, and changes in sea level also negatively affect efforts to manage salinity levels and preserve water quality in the Delta in order for the water to remain suitable for urban and agricultural users. In 2017, abundant hydrology highlighted the issues associated with the State’s storage and conveyance system. The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1) will provide opportunities to build new storage reservoirs to augment existing supplies.

Oroville Dam

At a height of 770 feet, Oroville Dam is one of the tallest earthen dams in the U.S., and serves as the first and largest reservoir within the State Water Project system. Constructed in 1961, it has a maximum capacity of 3.5 maf. Similar to most dams, Oroville Dam was built with spillways to be used to release water to maintain safe reservoir operating conditions. Oroville Dam was constructed with a concrete-lined channel (Gated Spillway) and an unlined earthen path that serves as the Emergency Spillway. The extraordinary precipitation event that occurred during the first two months of 2017 resulted in the use of the Gated Spillway and the Emergency Spillway in order to maintain a safe reservoir level. The releases caused significant damage and erosion to both spillways and was thought to have compromised the integrity of the dam. The subsequent cost for the emergency response and cleanup was in excess of \$850 million; efforts are being made to recover up to 75% of those costs from the Federal Emergency Management Agency (FEMA). Individual costs to SWP contractors cannot be estimated until it is determined how much FEMA will contribute to the repair costs. Reconstruction efforts at the dam and spillways began in 2017 and will continue into 2019.

California Water Fix

Perhaps the biggest opportunity to stabilize the operations of the SWP and provide more reliable water supply to CVWD and other contractors is the proposed Delta Habitat Conservation and Conveyance Program (DHCCP). The DHCCP will manage a number of activities to support the development of California Water Fix (formerly the Bay-Delta Conservation Plan (BDCCP)), which includes engineering, identification of habitat restoration opportunity areas, and preliminary designs for water conveyance facilities.

One proposed water conveyance facility would feature: 3 pumping plants, state-of-the-art fish screens, a forebay for temporarily storing water pumped from the river, and 2 tunnels to carry the water 35 miles to existing pumping plants in the south Delta. No final decisions on the proposed conveyance facility can be made prior to completion of regulatory and environmental review and public input.

Costs of the new facility, and mitigation associated with that facility, would be paid through charges to water users who

benefit from its development and operation. CVWD would be responsible for paying its share of the estimated \$17 billion cost. The SWP contractors are estimated to contribute \$11 billion to the project with the balance paid by State, Federal, and other users. CVWD's share would be based on its percentage of entitlement from the project, which is approximately 3.4%.

Sites Reservoir

On July 26, 2016, the CVWD Board provided authorization to participate as a member of the Sites Reservoir Project. CVWD is participating on this project in order to reinforce its water supply to help meet the goal of achieving sustainable groundwater basins. The Sites Reservoir is a new off-stream water storage project that was contemplated as part of the initial discussions to increase opportunities for flood protection and water storage in the geographic area north of the Delta. Currently in the planning stages, this reservoir is envisioned to have a maximum storage capacity of around 1.8 maf, which will have the ability to store water during wet hydrologic years and release water during dry periods. Located below Lake Oroville, releases from Sites Reservoir offers the benefit of allowing more water to be reserved in Oroville for environmental flow releases associated with fish temperature requirements. The governance for this project is represented by a diverse group of water agencies from north of the Delta and south of the Delta, some of whom are Central Valley Project contractors and others who are State Water contractors. This project is estimated to cost at least \$4.4 billion, of which a portion of the cost may be reimbursed through the Proposition 1 process for storage program investments, pending a successful application. It is too early in the planning process to determine the cost to participating members.

Funding

Article 34 of the DWR contract enables CVWD to levy a tax on all property within the service boundaries not exempt from taxation, in an amount sufficient to provide for all payments due under the contract within that year. The current levy is \$0.10/\$100 of assessed value, of which approximately \$0.08/\$100 is used to pay for State Water Project obligations. As an example, a house valued at \$300,000 would be levied \$300 ($\$300,000/100 \times \0.10), or \$25 a month. This levy is placed on the property tax rolls for all nonexempt parcels within CVWD's boundaries.



Fast flowing water in the Whitewater River on its way to the Windy Point Replenishment Facility

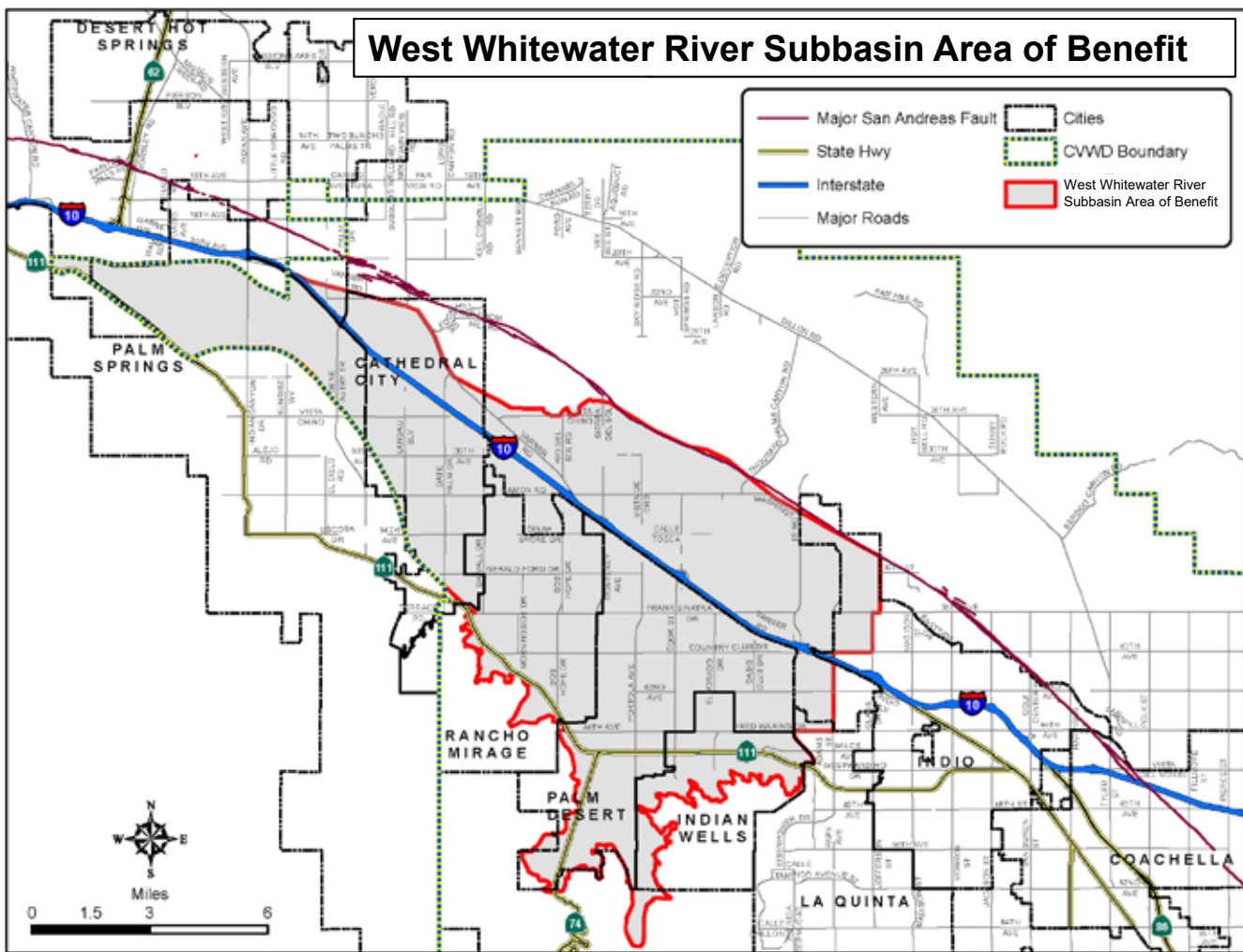
West Whitewater Replenishment Fund

Background

In 1973, CVWD and DWA began using the SWP entitlement to replenish the western Coachella Valley’s aquifer at the Whitewater spreading area, northwest of Palm Springs. This replenishment area is referred to as the West Whitewater River Subbasin Area of Benefit (AOB) and its activities are accounted for in the West Whitewater Replenishment Fund (West Whitewater).

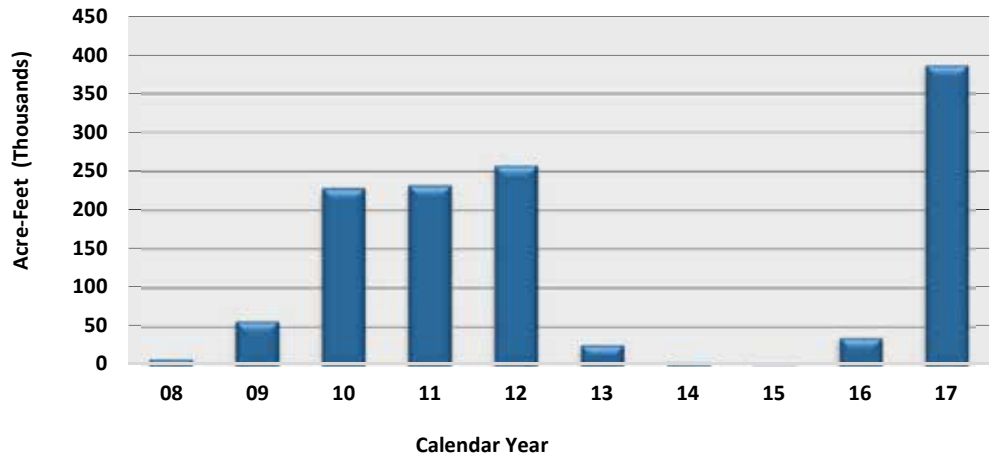
The West Whitewater River Subbasin AOB is replenished using imported water from the SWP, water purchased from MWD, Glorious Land Company (GLC) and Rosedale-Rio Bravo Water Storage District, other available purchase opportunities, as well as natural runoff. Other available water purchases include water purchased from Metropolitan Water District QSA Transfer water.

The following map shows the West Whitewater Area of Benefit, along with CVWD Boundaries.



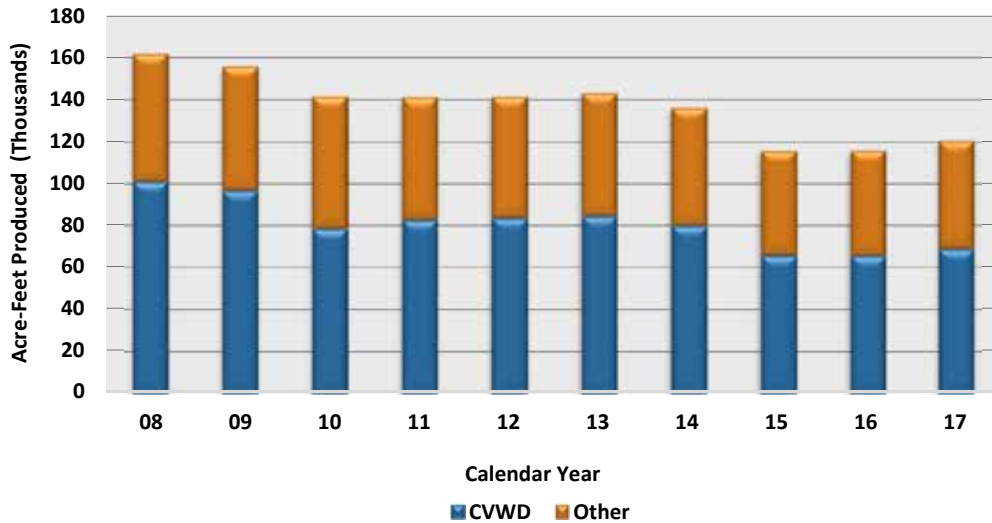
The graph to the right shows the amount of water the District has replenished over the last ten years. It also shows the variability of the supply of SWP water. To date, CVWD has replenished approximately 3.3 million acre-feet of water in the West Whitewater River Subbasin AOB. The amount of water replenished varies year to year. This is due in part to the 1984 Advance Delivery Agreement between CVWD, DWA, and MWD, whereby the District will allow MWD to predeliver up to 800,000 af of water in the Whitewater

**West Whitewater River Subbasin AOB
Ten-Year History of Acre-Feet Replenished**



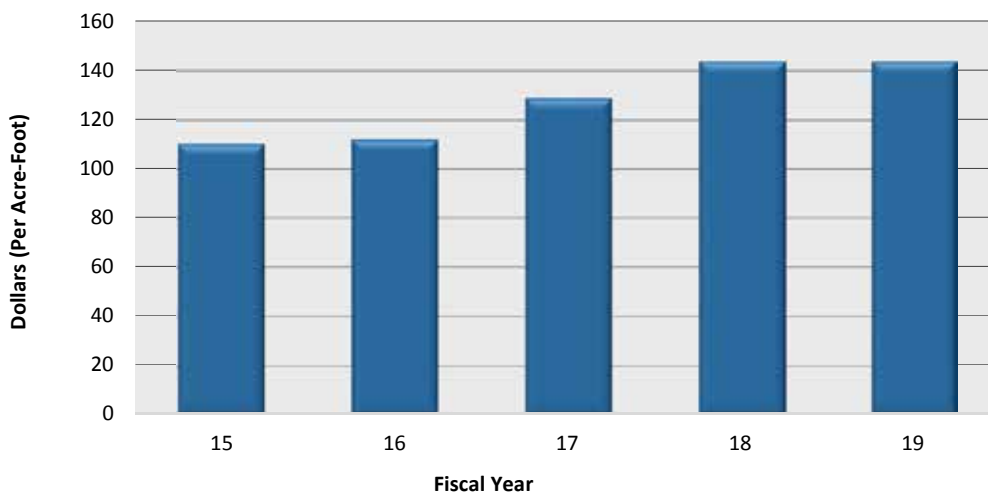
River Subbasin. MWD predelivered, or delivered in advance, a total of over 300,000 af of water from 2010 through 2012. In 2017, MWD predelivered an additional 285,000 af of water, which is reflected in the graph below. In years where an advanced delivery balance exists, MWD may deliver less than CVWD’s SWP allocations to the Coachella Valley and instead draw down the advanced delivery account. However, the account can never go below zero. This agreement allows MWD to store Colorado River water in the Whitewater River Basin in wet years.

**West Whitewater River Subbasin AOB
Ten-Year History of Acre-Feet Produced**



There were 69 producers in the West Whitewater River Subbasin AOB that pumped 120,383 af of water from the aquifer in 2017, an increase of 4,724 af from 2016. Of the 120,383 af produced in 2017, CVWD’s wells produced 68,710 af for use as domestic water compared to 65,485 af in 2016, an increase of 3,225 af. The graph above shows the amount of water produced in the subbasin over the last ten years.

West Whitewater RAC Rates Five-Year History



The table above shows the five-year history of replenishment rates for the West Whitewater Replenishment Fund. The rates remain the same as fiscal 2018.

Budget Summary

West Whitewater revenues are budgeted to increase by 14%, compared to fiscal 2018. The primary reasons is a \$9 million increase in State Water Project property tax revenues due to reallocation of SWP revenues between the Replenishment Funds. Operating expenses are budgeted to decrease \$8 million, compared to fiscal 2018 primarily due to a decrease in water purchases. Ending reserves for fiscal 2019 are budgeted at \$21 million, a decrease of \$6.9 million from fiscal 2018. The decrease in reserves is primarily due to SWP water costs being \$6.7 million greater than SWP tax revenues. Reserves are budgeted to have a deficit of \$11.3 million compared to targets set by the Reserve Policy.

Nonoperating expenses include capital improvements of \$9 million, a \$499,000 contribution to CalPERS and a \$60,000 transfer to the Motorpool Fund for its share of equipment purchases.



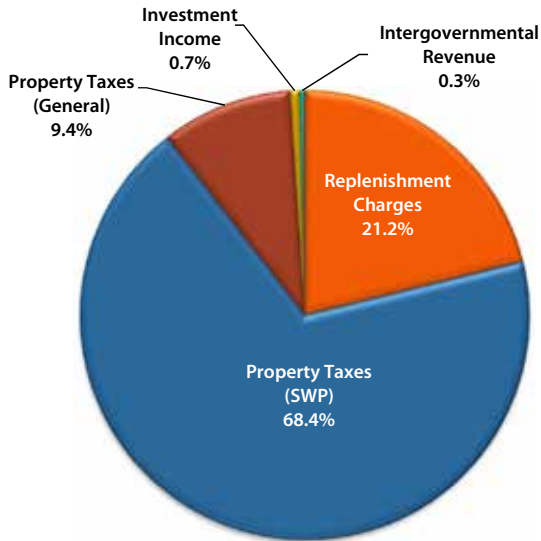
Thomas E. Levy Replenishment Facility

West Whitewater Replenishment Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Replenishment Charges	14,992,000	15,137,000	15,850,000	15,526,000	389,000	2.6
Property Taxes - SWP	37,801,000	41,184,000	43,000,000	50,164,000	8,980,000	21.8
Property Taxes - General	-	7,284,000	7,000,000	6,924,000	(360,000)	(4.9)
Charges for Services	7,000	-	-	-	-	-
Intergovernmental Revenue	422,000	250,000	213,000	250,000	-	-
Investment Income	692,000	543,000	540,000	530,000	(13,000)	(2.4)
Total Revenues	53,914,000	64,398,000	66,603,000	73,394,000	8,996,000	14.0%
Expenses						
Salaries & Benefits (net of capitalized labor)	1,441,000	1,461,000	1,473,000	1,587,000	126,000	8.6
Supplies & Services	2,142,000	4,037,000	5,077,000	3,581,000	(456,000)	(11.3)
Utilities	22,000	22,000	21,000	24,000	2,000	9.1
Water Purchases	12,221,000	11,996,000	11,999,000	9,383,000	(2,613,000)	(21.8)
SWP - Allocated Costs	55,718,000	61,999,000	60,052,000	56,877,000	(5,122,000)	(8.3)
Capital Outlay	4,000	20,000	17,000	64,000	44,000	220.0
Total Expenses	71,548,000	79,535,000	78,639,000	71,516,000	(8,019,000)	(10.1%)
Operating Income (Loss)	(17,634,000)	(15,137,000)	(12,036,000)	1,878,000	17,015,000	112.4%
Nonoperating Revenues (Expenses)						
Capital Improvement Program	(799,000)	(5,815,000)	(6,083,000)	(8,999,000)	(3,184,000)	(54.8)
Contribution to Motorpool CIP	(76,000)	(91,000)	(52,000)	(60,000)	31,000	34.1
Sanitation Contribution to CIP	-	1,724,000	200,000	-	(1,724,000)	(100.0)
Grant Revenue	263,000	800,000	132,000	-	(800,000)	(100.0)
CalPERS Liability Buy-down	-	-	-	(499,000)	(499,000)	-
Total Nonoperating Revenues (Expenses)	(612,000)	(3,382,000)	(5,803,000)	(9,558,000)	(6,176,000)	(182.6%)
Increase (Decrease) in Cash Flow	(18,246,000)	(18,519,000)	(17,839,000)	(7,680,000)	10,839,000	58.5
Beginning Reserves	64,714,000	46,468,000	46,468,000	28,692,000	(17,776,000)	(38.3)
Transfer From/(To) Other Funds	-	-	63,000	-	-	-
Ending Reserves	46,468,000	27,949,000	28,692,000	21,012,000	(6,937,000)	(24.8%)

Revenues

Operating Revenues
\$73,394,000



Replenishment Charges comprise 21.2% of the revenue. The replenishment charge revenues are budgeted based on the amount of water expected to be pumped from the aquifer (well production) multiplied by the RAC rate. The RAC rate remains unchanged at \$143.80 per acre-foot in fiscal 2019. Replenishment charge revenues are budgeted at \$15.5 million for fiscal 2019, an increase of 2.6% from fiscal 2018. This is the result of the higher production than previously budgeted.

SWP Property Tax Revenues make up 68.4% of the revenues of the fund and are budgeted to increase by 21.8%. The ten-cent State Water Project tax levy is divided between the three replenishment funds. The West Whitewater Fund will receive \$.076 of the revenue generated by the \$.10 tax levy in fiscal 2019 on the full-assessed property value. In fiscal 2018, the fund received \$.068 of the revenue generated from the ten-cents of the tax levy. The change in allocation, along with a projected increase in assessed property values will generate an additional \$9 million in revenue.

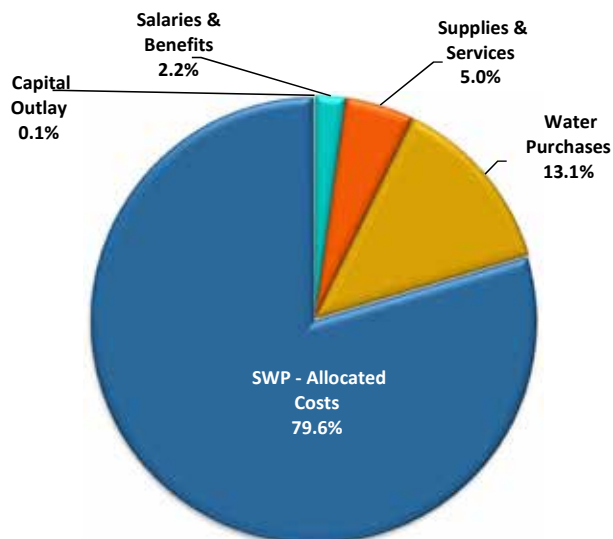
General Property Tax Revenues make up 9.4% of the revenues of the fund. These property taxes are part of the District's general

discretionary tax revenue and may be allocated as determined by the Board of Directors.

Investment Income is budgeted at \$530,000. Investment income is based on the cash balance in the fund and is generated by the combined investments of the District.

Expenses

Operating Expenses
\$71,516,000



Salaries & Benefits amount to \$1.6 million, an increase of \$126,000 compared to fiscal 2018. This increase reflects the impacts of additional personnel, increased labor costs from negotiated labor contracts, and increased CalPERS contributions.

Supplies & Services are budgeted at \$3.6 million, a decrease of 11.3%. The changes are primarily the result of professional service fees to support and improve groundwater management, data compliance with new regulatory requirements, and updates to the Alternative Groundwater Sustainability Plans to satisfy any DWR identified deficiencies. There are also increases in materials and supplies; however, these costs are offset by a reduction of \$800,000 in golf course turf rebates.

Water Purchases are budgeted at \$9.4 million for non-SWP water, as compared to \$12 million budgeted in fiscal 2018, representing a 21.8% decrease in water purchase costs. The primary cause of the decrease in water purchases is from water purchased from GLC. Water purchased from GLC in fiscal 2019 is 9,500 af compared to 16,500 af in fiscal 2018. The District has agreements that allow the purchase of 35,000 af from the Metropolitan Water District QSA Transfer and up to 16,500

af from GLC. The water purchased from MWD is considered SWP water. The conveyance cost of this water is charged to water purchases while the cost of the water is charged to the SWP water costs.

2019 Water Replenishment Funds

SWP Allocated Costs are budgeted at \$50.2 million, a decrease of \$9 million. The decrease in SWP costs is primarily due to a 35% projection in the water allocation from the SWP compared to a 72.5% projection in fiscal 2018. The reduction in water allocation is due to reduced snowpack in the Sierra Nevada which is where most of the state's water supply originates.

Capital Outlay is budgeted at \$64,000 for fiscal 2019.

Capital Improvements

The Capital Improvements Budget of \$9 million is for the completion of Phase 1 of the Palm Desert Replenishment Facility (PDRF) and improvements on the Whitewater Replenishment Facility intake and radial gates. The PDRF will provide for replenishing Colorado River Water at Wastewater Reclamation Plant 10 (WRP 10) located in Palm Desert. Additional information is provided in the Budget Summary section of the West Whitewater Fund. More details on the Capital Improvement Plan are located in the Capital Improvements chapter.

Five-Year Forecast

The biggest challenge facing the West Whitewater Fund over the next five years continues to be its financial insolvency. The fund is projecting negative cash flows of \$41.7 million for the five-year period. The negative cash flow is primarily due to the lack of rate increases, SWP costs exceeding SWP revenues by \$29 million, and \$11.8 million in water purchased from the Canal Fund by the PDRF during the five-year period. Groundwater production will decrease by an additional 2.5% by fiscal 2023 due to additional golf course connections to the Mid-Valley Pipeline. The District is taking a conservative stance and projecting that beginning in fiscal 2019, the fund will receive its full allotment of water from the Metropolitan Water District QSA Transfer and GLC, along with a budgeted 35% allocation of SWP water in fiscal 2019 and 50% allocations in fiscal years 2020 through fiscal 2023. Although the amount of water available from the SWP is directly related to the weather conditions in the state, the overall cost of the SWP remains high due to the large amount of fixed costs associated with the SWP system. As a result, it is projected that the fund's reserves will be underfunded during the five-year forecast.



Colorado River water is percolated into the aquifer at the Thomas E. Levy Groundwater Replenishment Facility

West Whitewater Replenishment Fund Five-Year Forecast

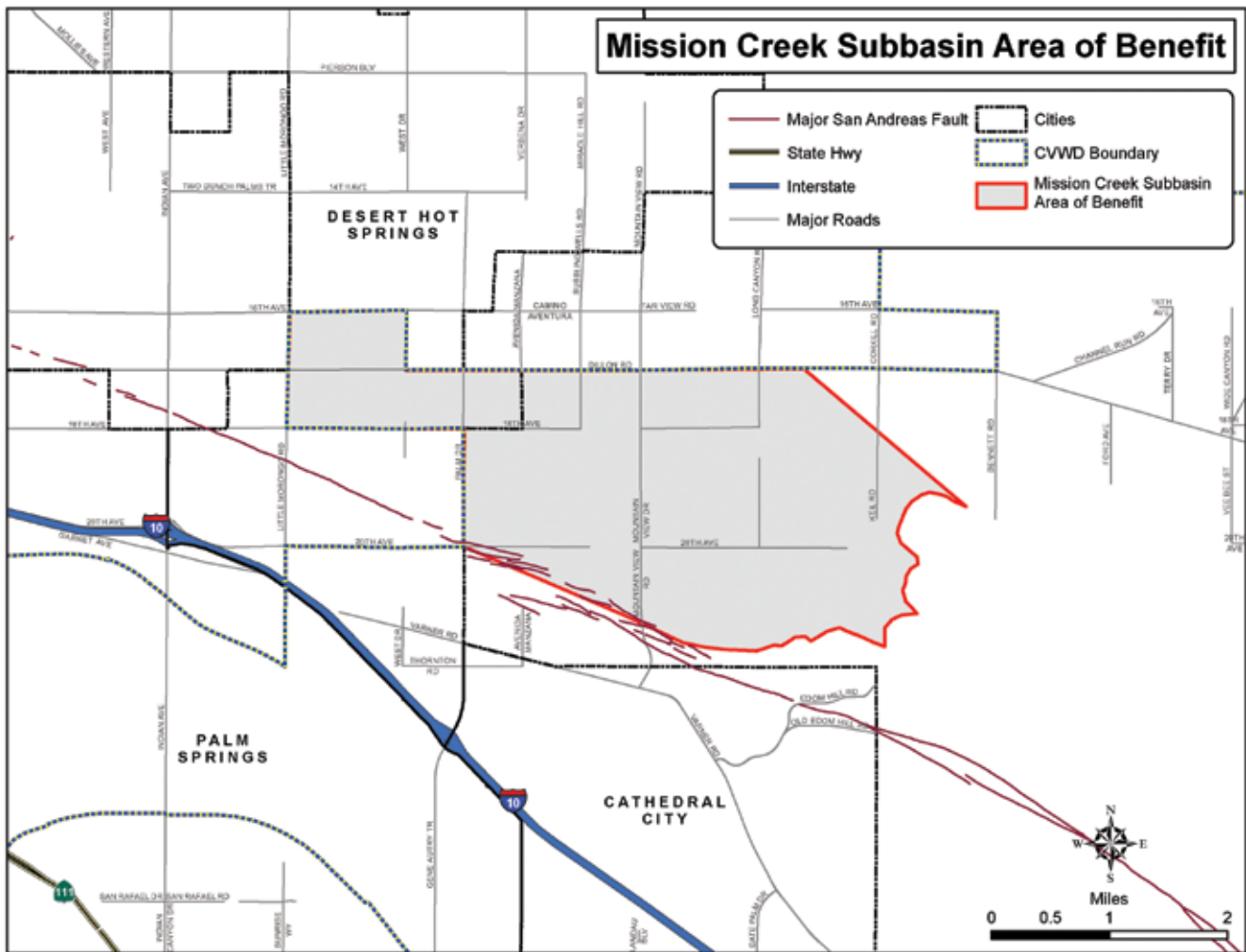
	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Replenishment Charges	15,526,000	15,436,000	15,342,000	15,243,000	15,139,000
Property Taxes - SWP	50,164,000	51,418,000	52,703,000	54,021,000	55,101,000
Property Taxes - General	6,924,000	7,023,000	7,125,000	7,230,000	7,338,000
Intergovernmental Revenue	250,000	250,000	250,000	250,000	250,000
Investment Income	530,000	391,000	185,000	151,000	112,000
Total Revenues	73,394,000	74,518,000	75,605,000	76,895,000	77,940,000
% Change From Prior Year		1.5%	1.5%	1.7%	1.4%
Expenses					
Salaries & Benefits (net of capitalized labor)	1,587,000	1,684,000	2,039,000	2,108,000	1,715,000
Supplies & Services	3,581,000	3,653,000	3,726,000	3,801,000	3,877,000
Utilities	24,000	25,000	26,000	27,000	28,000
Water Purchases	9,383,000	12,235,000	12,526,000	12,796,000	12,796,000
SWP Allocated Cost	56,877,000	59,711,000	58,850,000	58,510,000	58,510,000
Capital Outlay	64,000	64,000	64,000	64,000	64,000
Total Expenses	71,516,000	77,372,000	77,231,000	77,306,000	76,990,000
% Change From Prior Year		8.2%	(0.2%)	0.1%	(0.4%)
Operating Income (Loss)	1,878,000	(2,854,000)	(1,626,000)	(411,000)	950,000
% Change From Prior Year		(252.0%)	43.0%	74.7%	331.1%
Nonoperating Revenues (Expenses)					
Capital Improvement Budget	(8,999,000)	(9,294,000)	(631,000)	(1,681,000)	(18,204,000)
Contribution to Motorpool CIP	(60,000)	(106,000)	(92,000)	(44,000)	(57,000)
CalPERS Liability Buy-down	(499,000)	-	-	-	-
Total Nonoperating Revenues (Expenses)	(9,558,000)	(9,400,000)	(723,000)	(1,725,000)	(18,261,000)
Increase (Decrease) in Cash Flow	(7,680,000)	(12,254,000)	(2,349,000)	(2,136,000)	(17,311,000)
Beginning Reserves	28,692,000	21,012,000	8,758,000	6,409,000	4,273,000
Ending Reserves	21,012,000	8,758,000	6,409,000	4,273,000	(13,038,000)
% Change From Prior Year		(58.3%)	(26.8%)	(33.3%)	(405.1%)

Mission Creek Replenishment Fund

Background

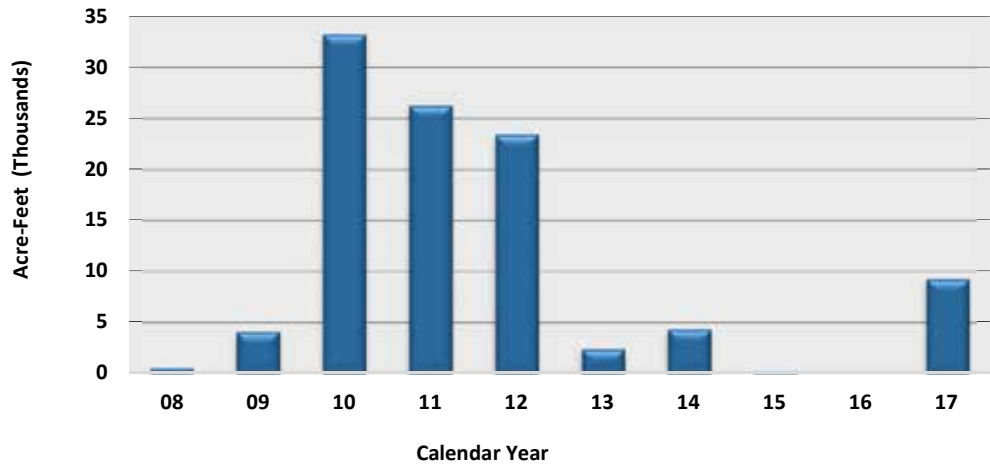
The Mission Creek Subbasin Area of Benefit (AOB) is bound on the south by the Banning fault and on the north and east by the Mission Creek fault as depicted in the map below. This subbasin relies on the same imported SWP exchange water source, as does the West Whitewater River Subbasin AOB. CVWD and DWA began constructing facilities to replenish the Mission Creek subbasin in 2001, and completed in 2002. In 2003, recognizing that management of the Mission Creek Subbasin extended across agency boundaries, CVWD and DWA entered into the Mission Creek Groundwater Replenishment Agreement. This agreement recognizes the need to operate the subbasin as a complete unit rather than as individual segments delineated by agency boundaries.

The following map shows the Mission Creek Area of Benefit, along with CVWD boundaries.

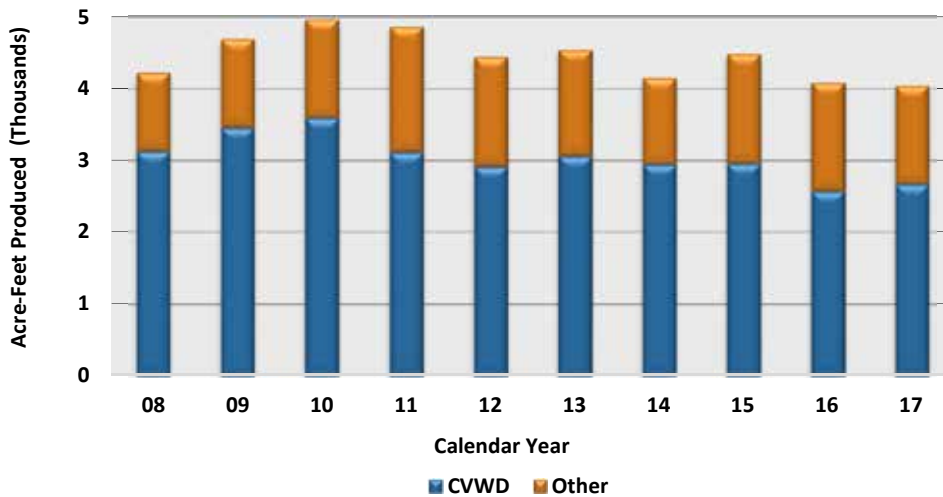


To date, CVWD has replenished approximately 160,000 af in the Mission Creek Subbasin AOB. The graph to the right shows the annual af replenished at the Mission Creek Replenishment facility over the last ten years. The amount of water replenished varies each year, due in part to the 1984 Advance Delivery Agreement between CVWD, DWA, and MWD, whereby MWD is allowed to predeliver water in the Mission Creek Subbasin. There were 9,248 af of water deliveries to the Mission Creek Replenishment facility in 2017.

Mission Creek Subbasin AOB Ten-Year History of Acre-Feet Replenished



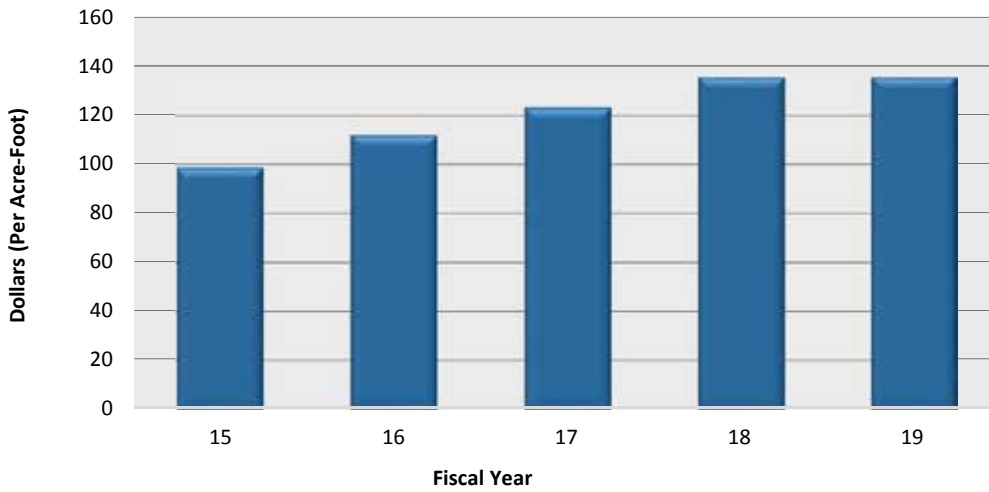
Mission Creek Subbasin AOB Ten-Year History of Acre-Feet Produced



In 2017, there were four producers in CVWD’s Mission Creek Subbasin AOB that pumped 4,281 af of water. Of that total production, 2,917 af were produced by CVWD wells for use as domestic water.

Annual production for the Mission Creek Subbasin AOB is depicted in the graph above.

**Mission Creek RAC Rates
Five-Year History**



The chart above shows the five-year history of replenishment rates for the Mission Creek Replenishment Fund. The rates remain the same as fiscal 2018.

Budget Summary

Mission Creek revenues are budgeted to increase \$1.1 million as compared to fiscal 2018. The primary reason is the increase in SWP tax revenues. Operating expenses are budgeted to decrease by 8.9% compared to fiscal 2018, due primarily to the decrease in water purchases from the SWP. Ending reserves for fiscal 2019 are budgeted at \$2.1 million, an increase of \$67,000 from fiscal 2018. Reserves are under funded through fiscal 2023, based on the District’s Reserve Policy.



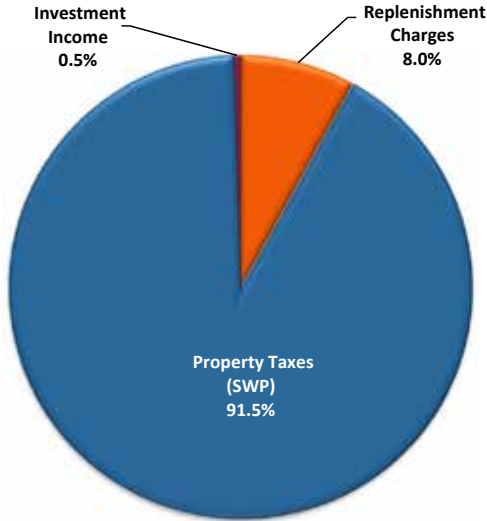
Mission Creek Replenishment Pond

Mission Creek Replenishment Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Replenishment Charges	511,000	543,000	640,000	543,000	-	-
Property Taxes (SWP)	1,990,000	5,090,000	5,500,000	6,200,000	1,110,000	21.8
Charges for Services	2,000	-	-	-	-	-
Investment Income	43,000	41,000	40,000	33,000	(8,000)	(19.5)
Total Revenues	2,546,000	5,674,000	6,180,000	6,776,000	1,102,000	19.4%
Expenses						
Salaries & Benefits (net of capitalized labor)	157,000	166,000	144,000	201,000	35,000	21.1
Supplies & Services	80,000	219,000	261,000	355,000	136,000	62.1
Utilities	1,000	1,000	1,000	1,000	-	-
SWP - Allocated Costs	2,509,000	6,903,000	7,405,000	6,083,000	(820,000)	(11.9)
Capital Outlay	3,000	-	-	2,000	2,000	-
Total Expenses	2,750,000	7,289,000	7,811,000	6,642,000	(647,000)	(8.9%)
Operating Income (Loss)	(204,000)	(1,615,000)	(1,631,000)	134,000	1,749,000	108.3%
Nonoperating Revenues (Expenses)						
Contribution to Motorpool CIP	(1,000)	(1,000)	(1,000)	-	1,000	100.0
CalPERS Liability Buy-down	-	-	-	(53,000)	(53,000)	-
Total Nonoperating Revenues (Expenses)	(1,000)	(1,000)	(1,000)	(53,000)	(52,000)	(5200.0%)
Increase (Decrease) in Cash Flow	(205,000)	(1,616,000)	(1,632,000)	81,000	1,697,000	105.0
Beginning Reserves						
Transfer From/(To) Other Funds	-	-	2,000	-	-	-
Ending Reserves	3,653,000	2,037,000	2,023,000	2,104,000	67,000	3.3%

Revenues

Operating Revenues
\$6,776,000



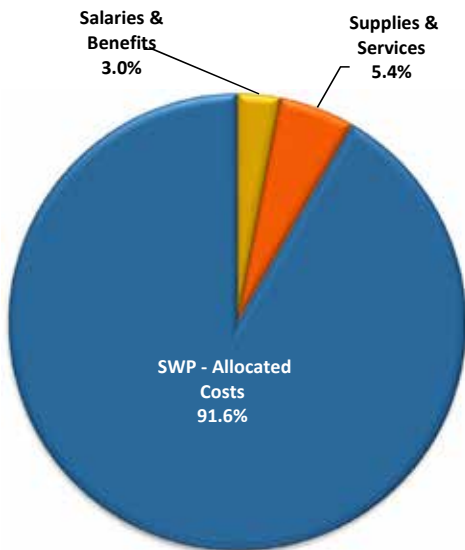
Replenishment Charges for fiscal 2019 are \$543,000 and account for 8% of total fund revenue. Replenishment charge revenues are based on the amount of water expected to be pumped from the aquifer (well production) multiplied by the RAC rate. The RAC rate for fiscal 2019 remained unchanged at \$135.52 per acre-foot.

SWP Property Tax Revenues make up 91.5% of the revenues of the fund and are budgeted to increase by \$1.1 million for fiscal 2019. The ten-cent State Water Project tax levy is divided between the three replenishment funds. The Mission Creek Fund receives 9% of the revenue generated by the ten-cent tax levy. The allocation of SWP tax revenues between the three replenishment funds was revised in fiscal 2019 resulting in additional tax revenues going to the Mission Creek Fund.

Investment Income is budgeted at \$33,000. Investment income is based on the cash balance in the fund and is generated by the combined investments of the District.

Expenses

Operating Expenses
\$6,642,000



Salaries & Benefits amount to \$201,000, an increase of \$11,000 compared to fiscal 2018.

Supplies & Services are budgeted at \$355,000, an increase of \$136,000 from fiscal 2018, primarily due to increases in professional and contract services.

Water Purchases for non-State Water Project water is budgeted for delivery to the West Whitewater Replenishment Fund for fiscal 2019. On an annual basis the District reviews the amount of water that will be replenished in the West Whitewater and Mission Creek Subbasins based on agreements with Mission Springs Water District and DWA. The District has agreements that would allow the purchase of 35,000 af from the Metropolitan Water District QSA Transfer and up to 16,500 af from GLC. The water purchased from MWD is considered SWP water. The conveyance cost of this water is charged to water purchases while the cost of the water is charged to the SWP water costs. See the West Whitewater Fund for more information on the cost of these two water deliveries.

SWP Allocated Costs are budgeted at \$6.1 million, a decrease of \$820,000. The decrease in SWP costs is due to decreased water deliveries and changes in how the SWP costs are allocated between the West Whitewater and Mission Creek replenishment funds. Additional information on the allocation of SWP costs is provided in the West Whitewater section of this chapter.

Capital Improvements

There are no budgeted capital improvements in fiscal 2019.

Five-Year Forecast

The five-year forecast reflects no annual rate increases. It will be necessary for the fund to increase its replenishment assessment charge and/or increase the revenues generated by the State Water Project tax levy for the fund to align its reserve targets with the District's Reserve Policy.

Mission Creek Replenishment Fund Five-Year Forecast

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Replenishment Charges	543,000	543,000	543,000	543,000	543,000
Property Taxes (SWP)	6,200,000	6,355,000	6,514,000	6,677,000	6,810,000
Investment Income	33,000	39,000	41,000	49,000	64,000
Total Revenues	6,776,000	6,937,000	7,098,000	7,269,000	7,417,000
% Change From Prior Year		2.4%	2.3%	2.4%	2.0%
Expenses					
Salaries & Benefits (net of capitalized labor)	201,000	213,000	223,000	234,000	245,000
Supplies & Services	355,000	362,000	369,000	376,000	384,000
Utilities	1,000	1,000	1,000	1,000	1,000
SWP Allocated Costs	6,083,000	6,506,000	6,374,000	6,302,000	6,302,000
Capital Outlay	2,000	2,000	2,000	2,000	2,000
Total Expenses	6,642,000	7,084,000	6,969,000	6,915,000	6,934,000
% Change From Prior Year		6.7%	(1.6%)	(0.8%)	0.3%
Operating Income (Loss)	134,000	(147,000)	129,000	354,000	483,000
% Change From Prior Year		(209.7%)	187.8%	174.4%	36.4%
Nonoperating Revenues (Expenses)					
Contribution to Motorpool CIP	-	-	(1,000)	-	-
CalPERS Liability Buy-down	(53,000)	-	-	-	-
Total Nonoperating Revenues (Expenses)	(53,000)	-	(1,000)	-	-
Increase (Decrease) in Cash Flow	81,000	(147,000)	128,000	354,000	483,000
Beginning Reserves	2,023,000	2,104,000	1,957,000	2,085,000	2,439,000
Ending Reserves	2,104,000	1,957,000	2,085,000	2,439,000	2,922,000
% Change From Prior Year		(7.0%)	6.5%	17.0%	19.8%

East Whitewater Replenishment Fund

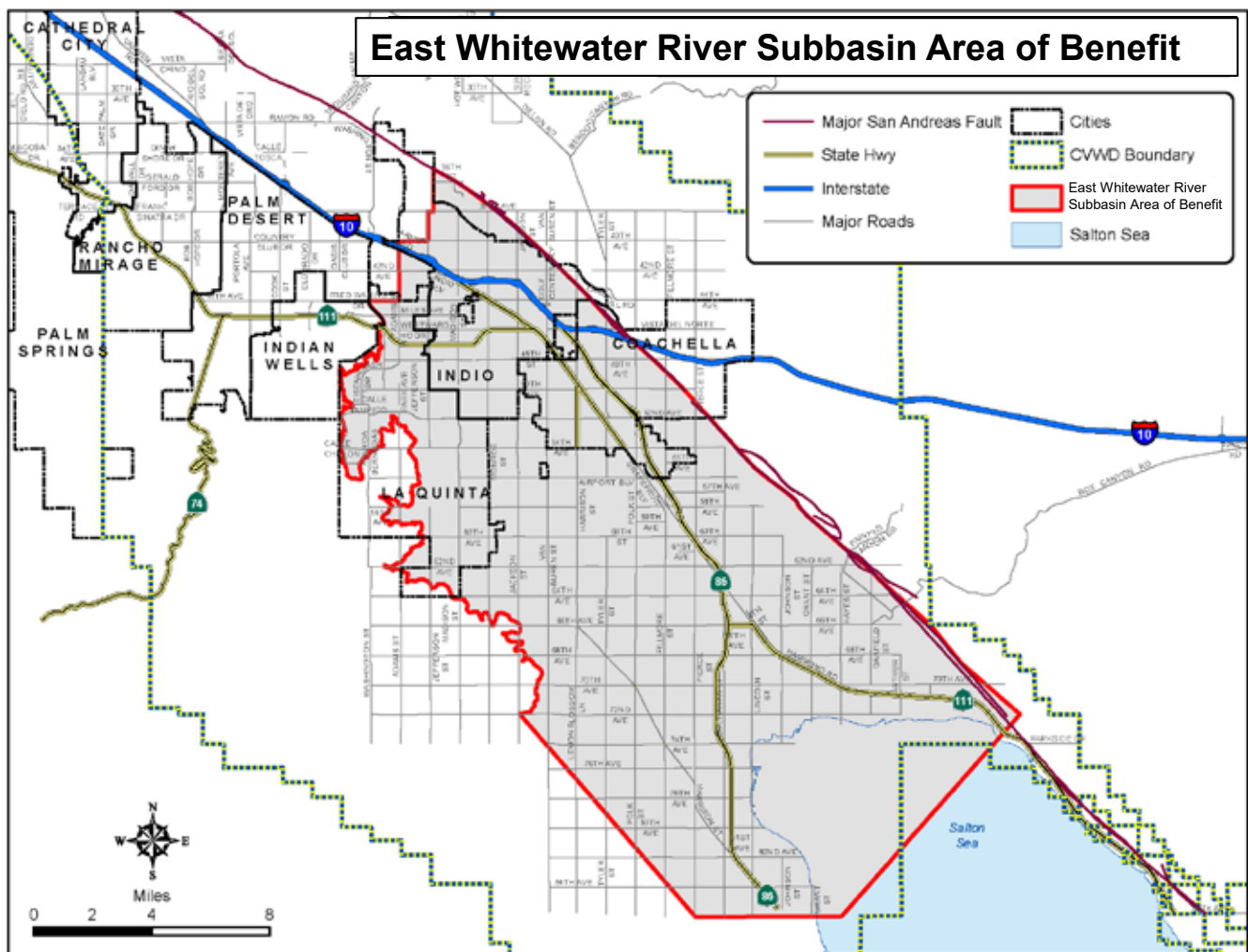
Background

The eastern boundary of the Whitewater River Subbasin is formed primarily by the watershed of the Mecca Hills and by the northwest shoreline of the Salton Sea, running between the Santa Rosa Mountains and Mortmar. The southern boundary roughly coincides with the Riverside/Imperial County line. The western boundary runs from Point Happy in La Quinta, to Indio Hills and the San Andreas Fault.

Groundwater replenishment in the east valley began in 1997, using pilot groundwater replenishment facilities at Martinez Canyon and Dike 4. The Thomas E. Levy Groundwater Replenishment facility (TEL) became operational in June 2009. A loan from the Domestic Water Fund was used to pay for the cost of the new facility. The repayment schedule of the TEL facility has been accelerated from its original 2028 repayment date to 2021.

Since 2009, groundwater levels have been elevated an average of 30 feet in the eastern Coachella Valley and as much as 90 feet near the TEL facility. According to a 2014 study released by the U.S. Geological Survey (USGS), average subsidence rates decreased at five locations in the city of La Quinta, near the TEL facility, and in one case, USGS measured ground uplift. These measurements were taken in 2010, after only one full year of operation of the TEL facility.

The following map shows the East Whitewater Area of Benefit, along with CVWD Boundaries.



The graph to the right depicts the amount of water replenished in this subbasin for the last ten years.

To date, CVWD has replenished approximately 343,000 af of water in this subbasin. The water is supplied from the Colorado River via the Coachella Branch of the All American Canal.

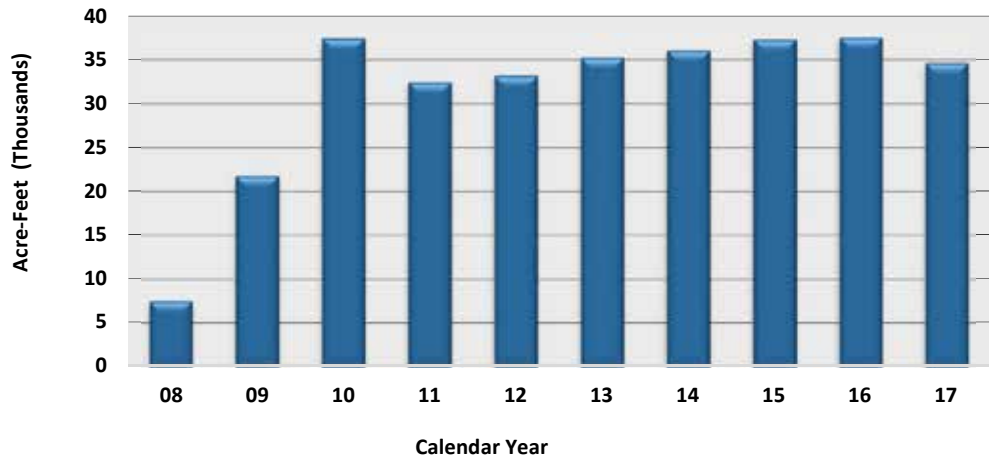
Of the 111 producers in CVWD’s East Whitewater River Subbasin AOB in 2017, 30 were “self-reporters.” Self-reporters are producers that read their own water meter and report their own groundwater production to the District, rather than entering into an agreement with the District to allow District staff to read their meter and report their production. The District requires these producers to accurately and timely report the volume of water they pump from all their wells located within the AOB on a monthly basis. The District performs audits on these self-reporters, along with aggressively identifying producers that do not accurately report the amount of water produced. If, after investigation, it is determined that groundwater production is under-reported, the District invoices the producers for the past under-reported production.

Production is charged to the period it was produced, while the revenues are reported in the fiscal year invoiced. As a result, production numbers reported for prior years will be updated, as necessary.

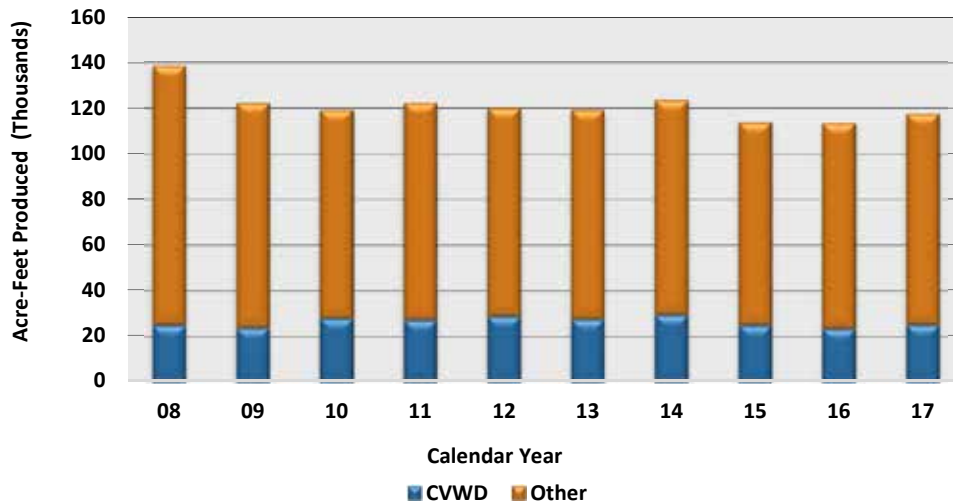
The 111 producers in CVWD’s East Whitewater River Subbasin AOB pumped 117,444 af of water from the aquifer in 2017, an increase of 4,111 af from 2016. Of the 117,444 af produced in 2017, CVWD’s wells produced 25,089 af for use as domestic water as compared to 23,936 af in 2016, an increase of 1,153 af.

The graph below shows the amount of water produced for the last ten calendar years.

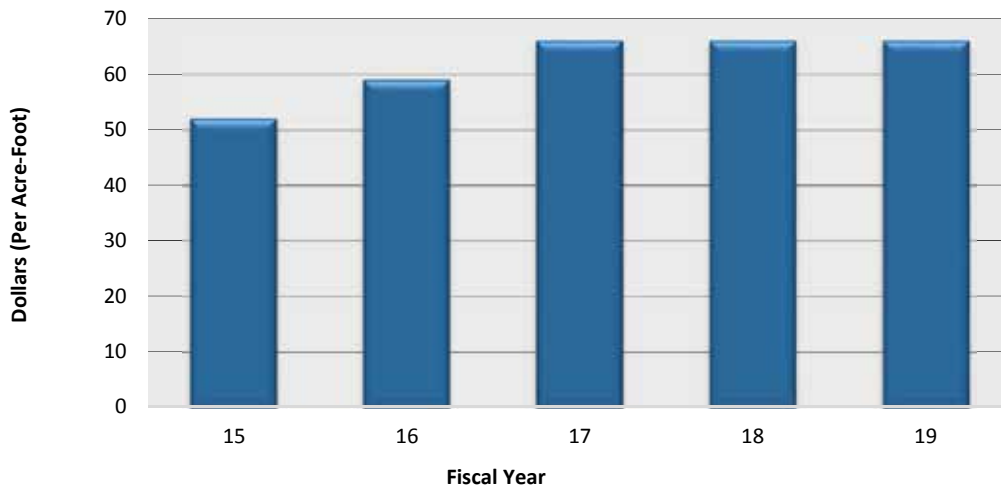
East Whitewater River Subbasin AOB Ten-Year History of Acre-Feet Replenished



East Whitewater River Replenishment AOB Ten-Year History of Acre-Feet Produced



East Whitewater RAC Rates Five-Year History



Budget Summary

East Whitewater revenues are budgeted 17.6% lower as compared to the fiscal 2018 budget. Property tax revenues are budgeted to decrease by 30%. Replenishment revenues are budgeted to increase 7.4% due to higher production. Operating expenses are budgeted to increase by 11.7% compared to fiscal 2018 primarily due to increased QSA Mitigation costs. Ending reserves for fiscal 2019 are budgeted at \$13.3 million, a decrease of \$8.8 million. The decrease in reserves is primarily attributed to a reduction in SWP tax revenue and increased capital spending.



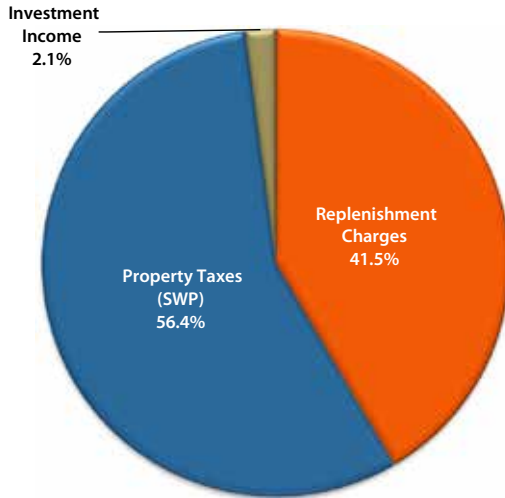
Diversion intake structure at the Whitewater Replenishment Facility

East Whitewater Replenishment Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Replenishment Charges	7,403,000	6,827,000	6,900,000	7,333,000	506,000	7.4
Property Taxes (SWP)	20,901,000	14,215,000	14,500,000	9,947,000	(4,268,000)	(30.0)
Charges for Services	(41,000)	-	-	-	-	-
Investment Income	308,000	372,000	370,000	371,000	(1,000)	(0.3)
Total Revenues	28,571,000	21,414,000	21,770,000	17,651,000	(3,763,000)	(17.6%)
Expenses						
Salaries & Benefits (net of capitalized labor)	1,150,000	1,002,000	1,105,000	1,157,000	155,000	15.5
Supplies & Services	1,146,000	1,400,000	1,471,000	1,708,000	308,000	22.0
Utilities	1,128,000	1,117,000	907,000	1,119,000	2,000	0.2
QSA Mitigation	7,804,000	5,717,000	5,717,000	6,633,000	916,000	16.0
Water Purchases	2,590,000	3,881,000	3,600,000	3,881,000	-	-
Capital Outlay	3,000	22,000	20,000	180,000	158,000	718.2
Total Expenses	13,821,000	13,139,000	12,820,000	14,678,000	1,539,000	11.7%
Operating Income (Loss)	14,750,000	8,275,000	8,950,000	2,973,000	(5,302,000)	(64.1%)
Nonoperating Revenues (Expenses)						
Debt Service - Interfund	(4,429,000)	(11,811,000)	(11,811,000)	(8,995,000)	2,816,000	23.8
Capital Improvement Budget	(1,028,000)	(6,585,000)	(1,129,000)	(8,357,000)	(1,772,000)	(26.9)
Contribution to Motorpool CIP	(88,000)	(94,000)	(91,000)	(30,000)	64,000	68.1
Grant Revenue	-	200,000	-	-	(200,000)	(100.0)
Capital Grant Revenue	194,000	-	16,000	-	-	-
CalPERS Liability Buy-down	-	-	-	(381,000)	(381,000)	-
Other Revenue (Expenses)	(91,000)	-	-	-	-	-
Total Nonoperating Revenues (Expenses)	(5,442,000)	(18,290,000)	(13,015,000)	(17,763,000)	527,000	2.9%
Increase (Decrease) in Cash Flow	9,308,000	(10,015,000)	(4,065,000)	(14,790,000)	(4,775,000)	(47.7)
Beginning Reserves						
Transfer From/(To) Other Funds	-	-	28,000	-	-	-
Ending Reserves	32,108,000	22,093,000	28,071,000	13,281,000	(8,812,000)	(39.9%)

Revenues

Operating Revenues
\$17,651,000



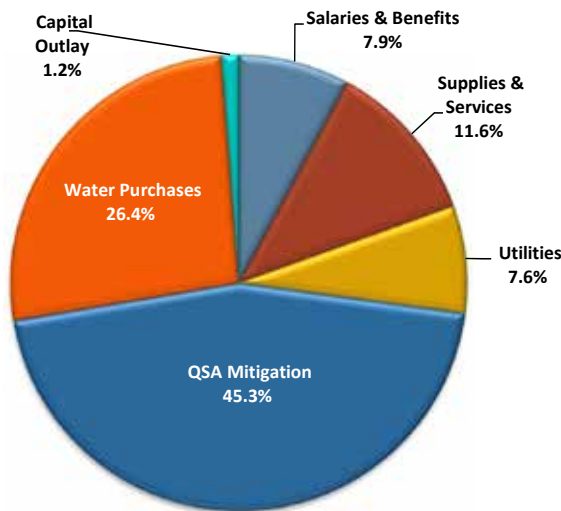
Replenishment Charges comprise 41.5% of the revenue. The replenishment charge budget is based on the amount of water expected to be pumped from the aquifer (well production), multiplied by the RAC rate. The RAC rate for fiscal 2019 will remain at the fiscal 2018 rate of \$66 per af. Replenishment charge revenues are budgeted at \$7.3 million for fiscal 2019, an increase of 7.4% from fiscal 2018 due to increased budgeted production.

SWP Property Tax Revenues make up 56.4% of the fund’s revenue. Property tax revenues are budgeted at \$9.9 million, as compared to \$14.5 million in fiscal 2018. The East Whitewater Fund will receive \$.015 of the revenue generated by the \$.10 tax levy in fiscal 2019. In fiscal 2018, the fund received \$.0235 of the revenue generated from the ten-cents of the tax levy. As a result, the East Whitewater Fund will receive approximately \$4.3 million less in tax revenue in fiscal 2019.

Investment Income is budgeted at \$371,000. Investment income is based on the cash balance in the fund and is generated by the combined investments of the District.

Expenses

Operating Expenses
\$14,678,000



Salaries & Benefits amount to \$1.2 million, an increase of \$155,000 compared to fiscal 2018. This increase reflects the impacts of labor contracts, increases in CalPERS contributions, District labor allocations, as well as additional staff.

Supplies & Services are budgeted at \$1.7 million, an increase of \$308,000 over fiscal 2018, primarily due to increased fees, on call consultants for environmental compliance reports, and materials and supplies.

Water Purchases are budgeted at \$3.9 million. This is the same as fiscal 2018 due to the same rates being charged for the Canal water. The fund purchases its water from the Canal Water Fund at the nonagricultural rate, which consists of the Class 1 rate plus the Water Supply Surcharge. The cost of water purchased from the Canal Fund remained at \$102.12 per acre-foot. The Canal rates can be found in the Canal Water Fund section of this chapter.

Utilities are budgeted at \$1.1 million, an increase of \$2,000 from fiscal 2018.

Capital Outlay is budgeted at \$180,000 for fiscal 2019.

Debt Service is the payment on the 15-year interfund loan from the Domestic Water Fund. It is budgeted at \$8.4 million in fiscal 2019, a decrease of \$1.8 million.

QSA Mitigation costs are budgeted at \$6.6 million, an increase of \$916,000. Effective fiscal 2018, the Nonpotable Water Fund began to pay its proportional share of the QSA Mitigation costs based on the amount of QSA water it purchases from the Canal Fund. See the table below for the full contract payment schedule.

QSA Mitigation Payment Schedule

Calendar Year	Original Funding Schedule	Revised Funding Schedule (2007)	FY 2016 Advance	FY 2017 Advance	FY 2018 Advance	FY 2019 Advance	FY 2020 Advance	Adjustment for Advances	Total Calendar Year Payments
2015	4,272,431	4,272,431	1,000,000						5,272,431
2016	5,803,865	5,803,865		2,000,000					7,803,865
2017	7,182,291	5,531,599			500,000			863,000	6,894,599
2018	11,875,345	5,195,516				500,000		3,536,000	9,231,516
2019	745,350	745,350					1,000,000		1,745,350
2020	738,869	738,869							738,869
2021	2,697,555	2,697,555							2,697,555
2022	2,706,745	2,706,745							2,706,745
2023	6,953,711	6,953,711						(4,220,705)	2,733,006
2024	2,748,523	2,748,523						(2,596,647)	151,876
2025	1,446,565	1,446,565						(881,435)	565,130

Capital Improvements

The Capital Improvement Budget amounts to \$8.4 million. There are three main projects for fiscal 2019. The first is \$7 million to finish construction of the La Quinta Irrigation Distribution Improvement Extension (L4 Pump Station) required to connect additional golf courses to the canal, and improve delivery reliability. In addition, there is \$400,000 budgeted for enhanced monitoring system upgrades and \$430,000 for connection of the Rancho La Quinta Golf Course. There is an additional \$522,000 for the fund's share of General District projects. More details are located in the Capital Improvement chapter.

Five-Year Forecast

Operating income is projected to be in excess of \$35 million over the five-year period, primarily due to SWP tax revenues of approximately \$52 million.

Approximately \$9.9 million in capital improvements are included in the five-year forecast. In addition to the \$8.4 million capital budgeted for fiscal 2019 there is an additional \$1.3 million budgeted to connect the Palm Royale Country Club and approximately \$200,000 for the fund's share of General District projects.

Reserves are fully funded through fiscal 2023.

**East Whitewater Replenishment Fund
Five-Year Forecast**

	Budget	Projected			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues					
Replenishment Charges	7,333,000	7,333,000	7,333,000	7,333,000	7,333,000
Property Taxes - (SWP)	9,947,000	10,195,000	10,450,000	10,711,000	10,926,000
Investment Income	371,000	247,000	256,000	259,000	252,000
Total Revenues	17,651,000	17,775,000	18,039,000	18,303,000	18,511,000
% Change From Prior Year		0.7%	1.5%	1.5%	1.1%
Expenses					
Salaries & Benefits (net of capitalized labor)	1,157,000	1,481,000	1,523,000	1,633,000	1,711,000
Supplies & Services	1,708,000	1,742,000	1,777,000	1,813,000	1,849,000
Utilities	1,119,000	1,153,000	1,188,000	1,224,000	1,261,000
Water Purchases	3,881,000	3,881,000	3,881,000	3,881,000	3,881,000
QSA Mitigation Payments	6,633,000	1,239,000	518,000	1,867,000	1,848,000
Capital Outlay	180,000	180,000	180,000	180,000	180,000
Total Expenses	14,678,000	9,676,000	9,067,000	10,598,000	10,730,000
% Change From Prior Year		(34.1%)	(6.3%)	16.9%	1.2%
Operating Income (Loss)	2,973,000	8,099,000	8,972,000	7,705,000	7,781,000
% Change From Prior Year		172.4%	10.8%	(14.1%)	1.0%
Nonoperating Revenues (Expenses)					
Debt Service - Interfund	(8,995,000)	(8,996,000)	(8,948,000)	(8,983,000)	-
Capital Improvement Budget	(8,357,000)	(242,000)	(1,201,000)	(21,000)	(44,000)
Contribution to Motorpool CIP	(30,000)	(3,000)	(2,000)	(4,000)	(1,000)
CalPERS Liability Buy-down	(381,000)	-	-	-	-
Total Nonoperating Revenues (Expenses)	(17,763,000)	(9,241,000)	(10,151,000)	(9,008,000)	(45,000)
Increase (Decrease) in Cash Flow	(14,790,000)	(1,142,000)	(1,179,000)	(1,303,000)	7,736,000
Beginning Reserves	28,071,000	13,281,000	12,139,000	10,960,000	9,657,000
Ending Reserves	13,281,000	12,139,000	10,960,000	9,657,000	17,393,000
% Change From Prior Year	(29.3%)	(8.6%)	(9.7%)	(11.9%)	80.1%

Internal Service Funds



Internal Service Funds

Internal Service Funds are used to account for the financing of goods or services provided by one department to other departments or funds of the District. Internal Service Funds are expressly designed to function as cost-reimbursement devices. These funds accumulate costs related to an activity on an accrual basis, so that the costs can subsequently be allocated to the benefitting funds or departments in the form of fees and charges. Internal Service Funds are appropriate when the intent is to recover the full cost of providing the activity.

CVWD operates three funds in this manner: Motorpool Fund, Workers' Compensation Self-Insurance Fund, and Dental Self-Insurance Fund.



District vehicles at the Palm Desert office

Motorpool Fund

Background

The Motorpool Fund is used to account for repairs, maintenance, fuel, and services to all District vehicles and equipment. The Motorpool division of the Facilities & Maintenance Department is responsible for management of the entire fleet. Services provided by this division include:

- South Coast Air Quality Management District (SCAQMD) compliance
- Vehicle and equipment rental
- Vehicle and equipment maintenance
- Preventative maintenance program
- Unscheduled repairs
- Fuel and parts inventory control
- Vehicle and equipment specifications preparation
- Vehicle and equipment acquisition

Budget Summary

The fiscal 2019 budget shows reserves increasing by \$158,000, compared to the fiscal 2018 budget. This is primarily due to a decrease in the Capital Improvement Program. Although capital expenses for vehicle replacement are included in the Motorpool Fund, all replacements are actually funded by the appropriate enterprise fund. Instead of accumulating reserves in the Motorpool Fund, each enterprise fund established a designated reserve for vehicle replacements or additions. In fiscal 2019, \$2.6 million is being transferred to the Motorpool Fund to reimburse the fund for capital purchases. Motorpool's proportionate share of the Districtwide Capital Improvement Program is \$2 million.

Revenues

Charges for services amount to \$4.7 million in fiscal 2019. This amount includes operation and maintenance (O&M) and insurance costs, which are charged to user departments. In addition, there is a small amount of investment income.

Expenses

Budgeted expenses of \$4.4 million in fiscal 2019, supplemented by \$4.6 million in capital improvements. In addition, there is \$700,000 in nonoperating expenses for CalPERS liability buy-down.

Additional details regarding vehicle equipment replacements are located in the Capital Improvements chapter.

Motorpool Internal Service Fund Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Charges for Services	4,337,000	4,648,000	4,427,000	4,692,000	44,000	0.9
Investment Income	20,000	33,000	25,000	24,000	(9,000)	(27.3)
Other Revenue	-	-	18,000	-	-	-
Total Revenues	4,357,000	4,681,000	4,470,000	4,716,000	35,000	0.7%
Expenses						
Salaries & Benefits (net of capitalized labor)	2,362,000	2,608,000	2,201,000	2,619,000	11,000	0.4
Supplies & Services	1,380,000	1,816,000	1,820,000	1,822,000	6,000	0.3
Utilities	2,000	2,000	3,000	3,000	1,000	50.0
Capital Outlay	1,000	17,000	16,000	-	(17,000)	(100.0)
Total Expenses	3,745,000	4,443,000	4,040,000	4,444,000	1,000	0.0%
Operating Income (Loss)	612,000	238,000	430,000	272,000	34,000	14.3%
Nonoperating Revenues (Expenses)						
Capital Improvement Program	(3,933,000)	(4,842,000)	(2,196,000)	(4,588,000)	254,000	5.2
Contribution to Motorpool CIP	3,977,000	3,312,000	2,635,000	2,575,000	(737,000)	(22.3)
CalPERS Liability Buy-down	-	-	-	(691,000)	(691,000)	-
Other Revenues (Expenses)	316,000	-	282,000	-	-	-
Total Nonoperating Revenues (Expenses)	360,000	(1,530,000)	721,000	(2,704,000)	(1,174,000)	(76.7%)
Increase (Decrease) in Cash Flow	972,000	(1,292,000)	1,151,000	(2,432,000)	(1,140,000)	(88.2)
Beginning Reserves	1,772,000	2,744,000	2,744,000	4,042,000	1,298,000	47.3
Transfer From/(To) Other Funds	-	-	147,000	-	-	-
Ending Reserves	2,744,000	1,452,000	4,042,000	1,610,000	158,000	10.9%

Workers' Compensation Self-Insurance Fund

Background

This fund accounts for all expenses associated with self-insuring the District's Workers' Compensation program. Rates are assessed against gross salaries as a means of providing revenue to cover workers' compensation claims and administrative costs.

Budget Summary

The budget for workers' compensation rates was derived from an actuarial analysis conducted in 2017. Estimated outstanding liabilities, including allocated loss adjustment expenses (ALAE), as of June 30, 2018 are \$2.6 million. The outstanding liabilities represent the estimated cost of unpaid claims.

Estimated outstanding liabilities include: case reserves, development of known claims, and incurred, but not reported claims. ALAE are direct expenses for settling specific claims. These amounts are limited to the self-insured retention. Case reserves are an estimate of unpaid amounts established by claims adjusters, for which particular claims will ultimately be settled or adjudicated.

The Reserve Policy was updated in May, 2018 and the reserve for the Workers' Compensation Self-Insurance Fund was eliminated. It was determined that a reserve was not necessary as the District already books an accrued workers' compensation actuarial liability equal to projected losses, hence eliminating the need for a reserve. Based upon the updated actuarial estimated outstanding liabilities as of June 30, 2018, accrued short term and long term liabilities total \$2.6 million.

Revenues

Charges for services total \$595,000 in fiscal 2019. This revenue represents an expense to each of the departments based upon salaries of employees and type of work performed. Reducing the experience modification factor used to calculate workers' compensation will reduce revenues in the Workers' Compensation Fund. This in turn will reduce the workers' compensation expense in each of the departments, and is adjusted to cover changes in actuarial projected losses.

Expenses

Overall budgeted expenses for fiscal 2019 are projected to increase by \$382,000 from fiscal 2018, as a result of some larger claims that are projected to settle in fiscal 2019. In addition, there is \$35,000 in nonoperating expenses for CalPERS liability buy-down.

**Workers' Compensation Self-Insurance Internal Service Fund
Statement of Revenues, Expenses, and Changes in Reserves**

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Charges for Services	594,000	595,000	590,000	595,000	-	-
Investment Income	63,000	62,000	56,000	59,000	(3,000)	(4.8)
Total Revenues	657,000	657,000	646,000	654,000	(3,000)	(0.5%)
Expenses						
Salaries & Benefits	113,000	120,000	120,000	126,000	6,000	5.0
Supplies & Services	565,000	844,000	616,000	1,220,000	376,000	44.5
Total Expenses	678,000	964,000	736,000	1,346,000	382,000	39.6%
Operating Income (Loss)	(21,000)	(307,000)	(90,000)	(692,000)	(385,000)	(125.4%)
Nonoperating Revenues (Expenses)						
CalPERS Liability Buy-down	-	-	-	(35,000)	(35,000)	-
Transfer From/(To) Other Funds	(1,000,000)	-	-	-	-	-
Total Nonoperating Revenues (Expenses)	(1,000,000)	-	-	(35,000)	(35,000)	0.0%
Increase (Decrease) in Cash Flow	(1,021,000)	(307,000)	(90,000)	(727,000)	(420,000)	(136.8)
Beginning Reserves	4,993,000	3,972,000	3,972,000	182,000	(3,790,000)	(95.4)
Transfer From/(To) Other Funds	-	-	(3,700,000)	-	-	-
Ending Reserves	3,972,000	3,665,000	182,000	(545,000)	(4,210,000)	(114.9%)

Dental Self-Insurance Fund

Background

The Dental Self-Insurance Fund accounts for the costs of the self-insured dental plan for active employees, retirees, and those eligible for Consolidated Omnibus Budget Reconciliation Act (COBRA). The plan for active employees is a cost-sharing plan where the employees pay either 20% or 25% and the District pays 75% or 80% of the monthly premiums, based upon the bargaining unit. Costs associated with the plan for retirees and COBRA participants are projected to be covered by billed premiums.

Budget Summary

Fiscal 2019 revenues are based on the number of active employees and the average number of retirees and COBRA participants participating in the plan, multiplied by the annual premium. The expense budget is projected actual costs, based on the District's average claims history.

This fund was established in January 2016, without any required reserves. When the District's Reserve Policy was updated in May 2018, it was decided not to require reserves for the Dental Self-Insurance Fund.

Dental Self-Insurance Internal Service Fund
Statement of Revenues, Expenses, and Changes in Reserves

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Revenues						
Charges for Services	418,000	486,000	435,000	489,000	3,000	0.6
Investment Income	-	-	-	1,000	1,000	-
Other Revenue	-	-	1,000	-	-	-
Total Revenues	418,000	486,000	436,000	490,000	4,000	0.8%
Expenses						
Supplies & Services	414,000	425,000	400,000	439,000	14,000	3.3
Total Expenses	414,000	425,000	400,000	439,000	14,000	3.3%
Operating Income (Loss)	4,000	61,000	36,000	51,000	(10,000)	(16.4%)
Increase (Decrease) in Cash Flow	4,000	61,000	36,000	51,000	(10,000)	(16.4)
Beginning Reserves	13,000	17,000	17,000	53,000	36,000	211.8
Transfer From/(To) Other Funds	-	-	-	-	-	-
Ending Reserves	17,000	78,000	53,000	104,000	26,000	33.3%

Budget by Department





Strategic Planning Workshop

Mission Statement

To meet the water-related needs of the people through dedicated employees, providing high quality water at a reasonable cost.

Department Descriptions

Each department is an organizational unit of the District, which provides distinct and different services. Included for each department is an organization chart, a detailed description of the function of each division, applicable workload measures and metrics, fiscal 2018 accomplishments, and fiscal 2019 goals. Where applicable, Strategic Plan goals for fiscal 2019 and accomplishments for fiscal 2018 are listed. Also included is a three-year financial trend summarizing the department's

expenses by object, division, and fund, along with supplemental budget requests. Operating expenses are controlled at the department level and should not exceed appropriations. Budget transfers within a department may be made administratively, if the transfer is within the same fund; transfers between departments within the same fund require approval by both departments.

Administration, Operations, and Service are responsible for large expenses that are unique to certain funds, including water purchases, replenishment charges, and QSA Mitigation payments. In order to avoid distorting the overall performance of the department, these costs have been segregated as separate line items in the Budget by Department table below.

Human Resources is responsible for the self-insured workers' compensation program and the self-insured dental program, which are accounted for in internal service funds.

Budget by Department

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Administration	6,002,000	9,208,000	9,181,000	9,745,000	537,000	5.8
Communication and Conservation	7,397,000	9,768,000	8,953,000	8,811,000	(957,000)	(9.8)
Engineering	10,802,500	10,487,000	10,295,700	12,660,000	2,173,000	20.7
Environmental Services	6,378,800	7,792,000	7,104,300	8,292,000	500,000	6.4
Facilities & Maintenance	27,933,000	31,308,000	29,205,000	33,876,000	2,568,000	8.2
Finance	4,185,000	4,862,000	4,698,000	5,370,000	508,000	10.4
Human Resources	5,905,000	7,432,000	5,811,000	7,854,000	422,000	5.7
Information Systems	4,960,000	4,995,000	4,825,000	5,523,000	528,000	10.6
Operations	42,301,700	47,355,000	46,289,000	50,533,000	3,178,000	6.7
Service	12,012,000	12,851,000	12,214,000	13,716,000	865,000	6.7
QSA Mitigation Payments	7,804,000	6,895,000	6,895,000	9,232,000	2,337,000	33.9
Replenishment Charges	10,560,000	11,808,000	12,450,000	12,521,000	713,000	6.0
Water Purchases	77,262,000	90,839,000	89,276,000	83,139,000	(7,700,000)	(8.5)
Dental Self-Insurance	414,000	425,000	400,000	439,000	14,000	3.3
Workers' Compensation	672,000	959,000	732,000	1,346,000	387,000	40.4
Less: Capitalized Labor	(3,100,000)	(3,068,000)	(3,413,000)	(3,570,000)	(502,000)	16.4
Total	221,489,000	253,916,000	244,916,000	259,487,000	5,571,000	2.2%

Base Budget

At the start of the budget process, each department is given a base budget. A base budget is the previous year's appropriation less any nonrecurring expenses. The base budget enables the department to operate at current levels. Anything a department requires in addition to that base budget, is considered a supplemental request. Listed on the following page is a summary of each department's supplemental requests and offsets for fiscal 2019. All nonrecurring amounts will be removed to establish the next fiscal year's base budget.

FY 2019 Approved Supplemental Requests

Department	Salaries & Benefits*	Supplies & Services*	Capital	Total Request	Nonrecurring
Administration	(250)	257,800	189,000	446,550	445,300
Communication & Conservation	1,700	(20,283)	-	(18,583)	35,400
Engineering	207,765	2,208,151	-	2,442,789	2,002,031
Environmental Services	900	996,677	-	997,577	1,033,050
Facilities & Maintenance	34,000	3,661,678	2,222,000	5,919,410	5,332,661
Finance	13,000	450,715	-	463,715	340,000
Human Resources	2,500	1,921,918	-	1,924,418	1,594,658
Information Systems	121,272	454,947	-	576,219	95,000
Operations	392,208	4,986,184	48,222	5,426,614	1,270,592
Service	6,233	551,974	-	558,207	419,620
Combined Total	779,328	15,469,761	2,459,222	18,736,916	12,568,312

*Includes additional Full Time Equivalents (FTEs) and expenses associated with additional personnel, supplemental overtime, and standby requests



Stream flows from the Whitewater River

Cost Allocation

The District is a multifaceted entity, with eight different enterprise funds or business units, which share a common workforce. With the exception of Operations, each department performs services that benefit all enterprise funds.

A cost allocation methodology has been developed that systematically charges costs to the appropriate funds. Maintaining an internal cost allocation structure is a detailed and involved activity. In preparation for the budget, each department estimates time spent in each enterprise or activity to determine an appropriate allocation of salaries & benefits. Estimates are usually based on work order history, help desk tickets, or some other quantitative method when the data is available. In addition, each department examines the remaining expenses for each division and determines an appropriate allocation for those expenses. In the event a particular expense or activity is directly attributable to just one enterprise, those expenses are budgeted and expensed directly to the enterprise fund receiving benefit and not based upon the allocation.

As an example, the Domestic Operation Maintenance Division in Operations only performs services for the Domestic Water Fund; therefore, all of its expenses are charged directly to that fund. On the other hand, the Safety Division of Human Resources performs services for all of the enterprise funds; therefore, expenses for Safety are distributed to all of the funds based upon the average distribution of the entire workforce.

The expenses for each department are allocated to the funds, based on the services each department provides. The following table illustrates how department expenses are allocated to each fund.

Interfund Allocation by Department

Department	Stormwater	Canal Water	Domestic Water	Nonpotable	Replenishment	Sanitation	Motorpool	Self Insurance
Administration	X	X	X	X	X	X		
Communication & Conservation	X	X	X	X	X	X		
Engineering	X	X	X	X	X	X		
Environmental Services	X	X	X	X	X	X		
Facilities & Maintenance	X	X	X	X	X	X	X	
Finance	X	X	X	X	X	X	X	X
Human Resources	X	X	X	X	X	X	X	X
Information Systems	X	X	X	X	X	X	X	
Operations			X	X	X	X		
Service	X	X	X	X	X	X		

Salaries & Benefits

The personnel budget for fiscal 2019 reflects 561.5 full-time equivalent (FTE) positions. This includes the addition of 5 FTE positions for fiscal 2019. Total payroll and related costs are budgeted at \$75.5 million, an increase of \$4.6 million or 6.4%, as compared to fiscal 2018.

The District reduced its workforce in 2009 by participating in the California Public Employees Retirement System (CalPERS) Golden Handshake program. In doing so, the District lost over 40 FTEs and an enormous amount of institutional knowledge. In addition, the District lost another 23, the following year. Over the years, as the economy has continued to recover, the reduction in workforce which resulted in a temporary suspension of certain operation and maintenance tasks, has been replaced by the need for additional personnel to reinstate suspended activities, add additional services, and meet state mandates. The following table depicts increases in personnel from fiscal 2015 through fiscal 2019 required in order to meet those requirements.

The District has three bargaining units, each with a separate multiyear Memorandum of Understanding (MOU): Coachella Valley Water District Employees Association (CVWDEA), Association of Supervisory Support Evaluation Team (ASSET), and Association of Coachella Valley Water District Managers (ACVWDM).

ACVWDM's MOU expires December 31, 2018 and ASSET's MOU expires on March 31, 2019. Negotiations are expected to start in the fall. CVWDEA completed negotiations during fiscal 2017. CVWDEA's MOU provides a COLA based upon Los Angeles-Riverside-Orange County, CA Consumer Price Index from October 2017 to October 2018 effective January 5, 2019 with a minimum of one (1%) and maximum of three (3%) percent.

The District offers four medical plans to eligible employees. There are two health maintenance organizations (HMOs), one preferred provider organization (PPO), and one High Deductible Health Plan (HDHP) with a Health Savings Account (HSA). All employee medical plans are cost-sharing plans. Employee contribution is based on each bargaining unit's MOU.

The adjacent table depicts, by bargaining unit, both the employer and employee contributions. Medical and vision plans are fully insured plans, while dental is a self-insured plan.

Medical/Vision/Dental Premium Contribution Split

Bargaining Unit	Employer Contribution	Employee Contribution
ACVWDM	75%	25%
ASSET	75%	25%
CVWDEA	80%	20%

Personnel Summary

Department	Actual FY 2016	Actual FY 2017	Budget FY 2018	Actual FY 2018	Budget FY 2019
Administration*	11	17	17	17	17
Board Secretary*	5	-	-	-	-
Communication & Conservation	25	24	25	24.5	25.5
Engineering	42	45	47	47	48
Environmental Services	27	25	28.5	29	28.5
Facilities & Maintenance**	121	127	124	120	124
Finance	28	27	28	26	28
Human Resources	9	10	10.5	10	10.5
Information Systems	14	15	15	15	16
Operations**	153	158	176	174	179
Service	84	83	85	84	85
Total	519	531	556	546	561.5

* Administrative Services established as a part of Administration FY 16, and the Board Secretary (Clerk of the Board) FY 17

** Mechanical Department established as a part of Operations FY 18, transferred from Facilities & Maintenance

California Public Employee Retirement System (CalPERS)

The District contributes to CalPERS, a multiple-employer defined benefit pension plan. Effective fiscal 2008, the District contracted the retirement formula of 2.5% @ 55. All employees hired before 01/01/13 are covered under this retirement formula, and are referred to as Classic Members. The Public Employees' Pension Reform Act (PEPRA) went into effect 01/01/13, with a retirement formula of 2% @ 62. All employees hired after 12/31/12 and not a prior Classic Member of CalPERS, are covered under this retirement formula.

The table on the following page depicts employer and employee contributions based on the participant's hire date. Participants are required to contribute up to 8% of their annual covered salary. In previous years the District's unfunded liability was included as a percentage of the employer's contribution. Effective fiscal 2018, CalPERS collects the employer contributions toward the plan's unfunded liability as dollar amounts instead of the prior method of a contribution rate. This is being done to avoid any possible funding issues that could arise from a declining payroll or reduction in the number of active members in the plan. The plan's

2019 Budget by Department

normal contribution will continue to be collected as a percentage of payroll. The unfunded accrued liability (UAL) is billed at the beginning of the fiscal year, with the option of prepayment at a discounted rate or monthly payments. The District's UAL payment was \$9.2 million for fiscal 2019. The District opted to go with the prepayment option of \$8.9 million, saving over \$300,000.

Included in the fiscal 2019 budget is \$20 million to buy-down the District's unfunded CalPERS liability.

CalPERS Contribution Split

Member Type	Hire Date	Retirement Formula	Employer Contribution	Employee Contribution	Combined Contribution
Classic	Before 01/01/13	2.5% @ 55	8.241%	8.000%	16.241%
PEPRA	After 12/31/12*	2% @ 62	8.241%	5.500%	13.741%

*Not previous members of CalPERS

Workers' Compensation

On May 18, 1992, the District implemented a self-insurance program for workers' compensation. In order to limit the District's loss exposure to \$250,000 per injury, the District purchases excess insurance coverage through a commercial insurer. This program is accounted for in the Workers' Compensation Self-Insurance Fund.

The rate is reviewed annually as a part of the budget process and is assessed on gross salaries as a means of providing revenue to pay claims and establish adequate reserve levels. The District conducted an actuarial analysis on the workers' compensation program in 2017. The new actuarial reflected a reduction in estimated outstanding losses, and a reduction in claims being received. As a result, the rate assessed on gross salaries was reduced. In 2018, the Workers' Compensation Reserve was eliminated. With an accrued liability established to cover any claims, there is no need to maintain reserves.

Retiree Benefits/Other Post-Employment Benefits (OPEB)

The District offers post-employment medical benefits. Benefits and employee/employer contributions are based on years of service, hire date, and date of retirement.

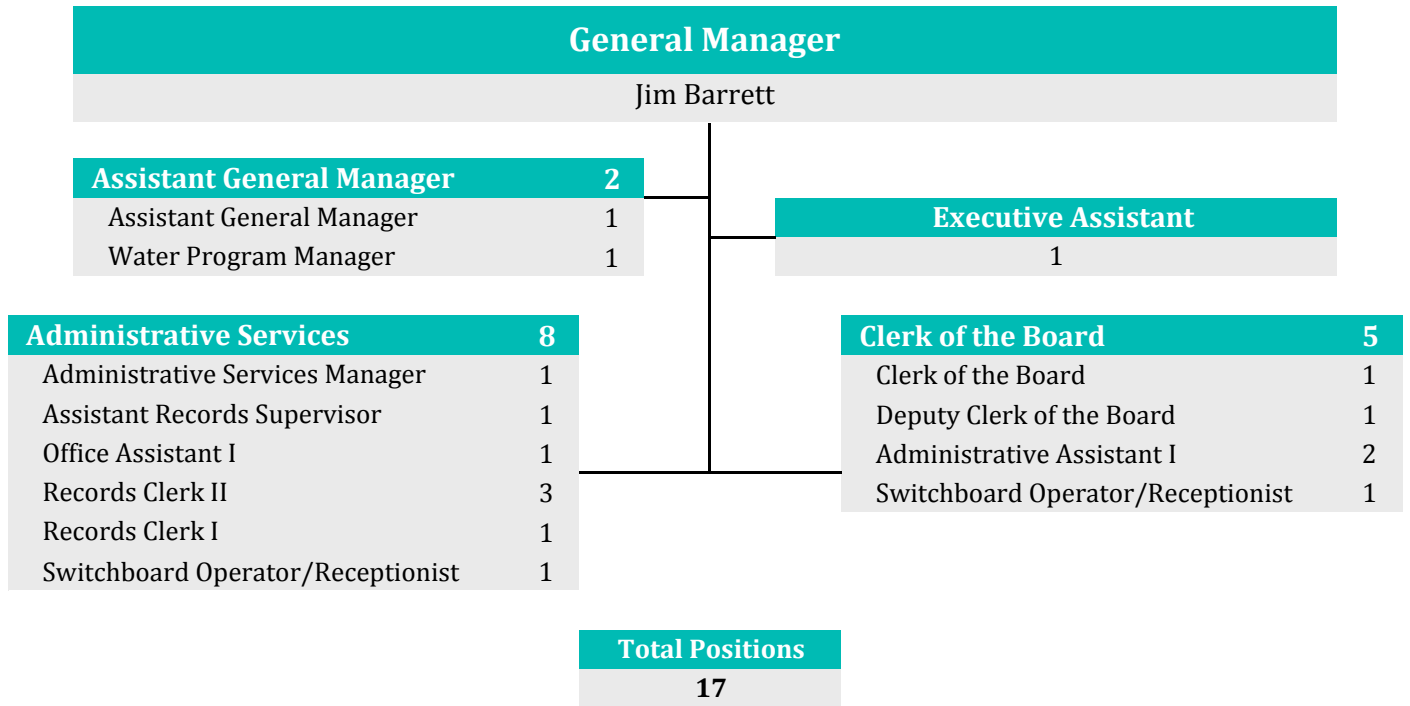
Historically, these benefits were funded on a pay-as-you-go basis. In fiscal 2014, the District established an OPEB Trust Fund to reduce the actuarial accrued OPEB liability, and deposited \$10 million. An additional \$10 million was deposited in fiscal 2015. As a part of the annual budget process, the District will continue to review and determine future trust payments.

Annual OPEB costs are calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement 45.

ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal expenses each year and to amortize any unfunded actuarial liabilities over a period not to exceed 30 years. In 2016, the District updated its GASB 45 Actuarial Valuation.

Administration





Department Description

Administration is responsible for adhering to and implementing policies of the elected five-member Board of Directors (Board). Administration is made up of three divisions: Executive Staff, Clerk of the Board, and Administrative Services.

Mission

To ensure that CVWD’s adopted mission statement and Board directions and policies are followed in a consistent manner throughout the organization.

Division Descriptions

Executive Staff

This division consists of four full-time positions: the General Manager, who is selected by and reports directly to the Board of Directors (Board), the Assistant General Manager and an Executive Assistant, who both report to the General Manager, along with a Water Program Manager who reports to the Assistant General Manager. Executive Staff is responsible for maintaining effective and timely communications between the Board and the District’s departments, with particular focus on the following functions and activities:

General Manager

- Provides daily oversight, direction, leadership, and management to District personnel in regards to:
 - » Policies
 - » Strategic initiatives
 - » Assets and resources
 - » Administrative, operational, and functional activities of Coachella Valley Water District
- Adheres to and implements policies of the elected five-member Board of Directors
- Prioritizes items that require Board authorization and approval
- Assists staff in the development and conduct of consistent practices

- Responsibilities also include:
 - » Integration of the Strategic Plan
 - » Monitoring performance efforts and decision-making processes
 - » Creating more accountability and transparency within the District

Assistant General Manager

- Principal representative in all matters related to the District's sources of imported water, which is used directly for irrigation and groundwater replenishment purposes, and is critical to the overall stability and sustainability of the District. Managing the District's sources of imported water requires significant management, negotiations, and protection. Sources include:
 - » State Project Water contracted through the State of California
 - » Colorado River Water contracted through the federal government
- Responsibilities also include implementing, overseeing, and monitoring the District's annual Strategic Plan, which:
 - » Helps define what is critical to the District's success
 - » Requires significant planning, time, and effort
 - » Guides the direction of the District by providing a framework for decisions, action plans, and initiatives

Clerk of the Board

This division consists of five full-time positions: the Clerk of the Board (Clerk), who reports directly to the General Manager, a Deputy Clerk of the Board, two Administrative Assistants, and a Switchboard Operator/Receptionist who report to the Clerk. The Clerk's Office is responsible for preparing, publishing, posting, and mailing all legal notices for the District. Additional functions and activities include:

- Prepares and distributes the Board of Directors' Meeting agenda and back-up materials in accordance with legal requirements for public meetings (Govt. Code Section 54950-54962) standards
- Prepares and maintains records of Board actions including:
 - » Meeting minutes
 - » Resolutions
 - » Ordinances
- Processes all requests for information and public records act requests on behalf of the District
- Provides administrative support to the Board of Directors
- Supports and coordinates general District election procedures, paperwork, and related communications
- Coordinates filing of:
 - » Conflict of Interest Statements
 - » Annual Campaign Disclosure Statements
 - » Statement of Facts
 - » Right-of-Way documents
 - » Other filings as required
- Coordinates all travel arrangements for Board members and District personnel
- Greets and receives visitors in Palm Desert
- Signs in, assigns visitors badge, and calls a staff person to escort visitor to their destination

Administrative Services

Administrative Services' mission is to create an open, inclusive work environment that is built on respect, communication, integrity, and collaborative teamwork. Our core values are: we are one team, respect for the individual, quality, integrity, teamwork, and master the fundamentals.

This division consists of eight full-time employees and is made up of three areas: reprographics, records management, and switchboard/front office reception.

Reprographics

- Provides high volume photocopy services to District staff
- Receives, sorts, date stamps, opens, processes, and electronically distributes incoming correspondence throughout the District
- Processes all outgoing correspondence
- Receives, sorts, and distributes interoffice mail from the Palm Desert offices

Records Management

- Manages the various types of District records using an enterprise content management solution
- Classifies, prioritizes, stores, secures, archives, preserves, retrieves, tracks, and destroys District records in compliance with government retention requirements and in accordance with the Records Retention Schedule adopted by the Board of Directors in fiscal 2015

Switchboard/Front Office Reception

- Answers the main incoming switchboard for the District
- Greets and receives visitors in Coachella
- Signs in, assigns visitors badge, and calls a staff person to escort visitor to their destination

Administration Metrics**Administration Workload Measures**

	FY 2015	FY 2016	FY 2017	FY 2018
Clerk of the Board				
District Documents Recorded	284	197	209	289
Board/Special Meeting Minutes Compiled	23	29	31	22
General Manager's Report of Activities	12	12	12	12
Secretary's Report of Documents Recorded	12	12	12	12
General Manager's Report of Authorizations/Executions	12	12	12	12
District Travel Requests Processed	419	445	410	634
Administration/Board Travel Requests Processed	116	110	94	131
Documents Notarized	304	345	284	302
Incoming Mail Processed	1,747	1,516	91	3,937
Outgoing Mail Processed	50,676	59,499	12,241	11,700
Documents scanned for FileNet Entry	368	284	2,209	2,450
Visitors Badges Issued at Reception Counter	2,661	2,515	1,985	3,136
Records Management				
Calls Answered	86,638	72,112	63,383	89,584
Incoming Mail Processed	41,134	38,308	24,599	29,560
Outgoing Mail Processed	125,194	158,120	122,202	122,393
Public Records Act Requests	67	76	141	84
Documents Processed for FileNet	34,300	22,246	19,973	11,288
Boxes Destroyed in Accordance with Records Retention	N/A	3,328	941	634
In Compliance with Records Retention Schedule	N/A	No	No	No

Fiscal 2017-18 Accomplishments

Executive Staff

- Enhanced partnership opportunities and information sharing with Valley municipalities through regular triennial meetings, staff-to-staff, and elected-to-elected
- Engaged with Riverside County and State of California staff to identify and promote infrastructure improvements in the Eastern Coachella Valley
- Developed contingency plans for prioritized service deliveries of nonpotable and Colorado River water, should a reduction or interruption of supply occur

Clerk of the Board

- Completed review, codification, and centralization of all District Ordinances and posted on CVWD.org
- Compiled all District policies and procedures
- Cross-trained all department personnel

Administrative Services

- Cross-trained two employees on AS400 archiving of records and one employee on incoming correspondence
- Four employees quality checked scanned documents two hours per week

Fiscal 2018-19 Goals

Executive Staff

- Enhance partnership opportunities and information sharing with Valley municipalities through regular triennial meetings, staff-to-staff, and elected-to-elected
- Continue to engage with Riverside County and State of California staff to identify and promote infrastructure improvements in the Eastern Coachella Valley, and seek external funding opportunities
- Advance the discussions of support for the California WaterFix within the Board, along with conducting workshops on financial impacts, and payments

Clerk of the Board

- Issue a RFP for a new agenda management platform by 12/31/18 and implement the new platform by 06/30/19
- Automate the process for Public Records Act requests
- Implement a visitor management system for the Palm Desert Administration building, which allows self-check-in with automatic creation and printing of visitor badges
- Develop and post to the District's intranet a Policy Manual for Districtwide policies
- Develop procedures to assist District personnel in submitting Board Action Items (BAIs) for Board approval

Administrative Services

- Destroy 1,250 archive boxes in accordance with the Records Retention Schedule by 06/31/19
- Cross-train two employees on incoming correspondence by 06/30/19
- Purge and organize all District vaults by 06/30/19
- Implement a visitor management system in Coachella by 12/31/18

Department Financial Trend - Administration

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	2,447,000	2,637,000	2,618,000	2,806,000	169,000	6.4
Outside Labor	8,000	-	-	-	-	-
Professional Development	605,000	1,034,000	1,129,000	1,094,000	60,000	5.8
Professional Services	2,421,000	3,514,000	3,541,000	3,369,000	(145,000)	(4.1)
Advertising and Media	11,000	20,000	20,000	20,000	-	-
Election Costs	82,000	-	-	225,000	225,000	-
Utilities	6,000	7,000	4,000	7,000	-	-
Materials & Supplies	213,000	193,000	136,000	178,000	(15,000)	(7.8)
Motorpool	9,000	10,000	9,000	11,000	1,000	10.0
Contract Services	6,000	30,000	30,000	32,000	2,000	6.7
Purchased Water *	-	85,655,000	84,223,000	76,425,000	(9,230,000)	(10.8)
QSA Mitigation Payments*	-	6,895,000	6,895,000	9,233,000	2,338,000	33.9
Miscellaneous Expense	194,000	1,817,000	1,812,000	1,814,000	(3,000)	(0.2)
Capital Outlay	-	-	-	189,000	189,000	-
Total	6,002,000	101,812,000	100,417,000	95,403,000	(6,409,000)	(6.3%)
Expenses by Division						
Administration	3,767,000	5,064,000	5,134,000	4,958,000	(106,000)	(2.1)
Board of Directors	605,000	336,000	327,000	336,000	-	-
Clerk of the Board	586,000	627,000	631,000	1,109,000	482,000	76.9
Records Management	801,000	852,000	835,000	910,000	58,000	6.8
Reprographics	243,000	229,000	166,000	214,000	(15,000)	(6.6)
Colorado River & Other	-	13,752,000	13,740,000	16,845,000	3,093,000	22.5
State Water Project & Other Water Costs	-	80,952,000	79,584,000	71,031,000	(9,921,000)	(12.3)
Total	6,002,000	101,812,000	100,417,000	95,403,000	(6,409,000)	(6.3%)
Domestic Water	1,155,000	1,232,000	1,126,000	1,434,000	202,000	16.4
Canal Water	2,580,000	9,456,000	8,167,000	10,118,000	662,000	7.0
Sanitation	660,000	657,000	594,000	737,000	80,000	12.2
Stormwater	399,000	442,000	351,000	493,000	51,000	11.5
Nonpotable Water	59,000	1,243,000	1,232,000	2,679,000	1,436,000	115.5
West Whitewater Replenishment	909,000	75,915,000	75,531,000	66,913,000	(9,002,000)	(11.9)
Mission Creek Replenishment	5,000	6,930,000	7,453,000	6,106,000	(824,000)	(11.9)
East Whitewater Replenishment	235,000	5,937,000	5,963,000	6,923,000	986,000	16.6
Total	6,002,000	101,812,000	100,417,000	95,403,000	(6,409,000)	(6.3%)

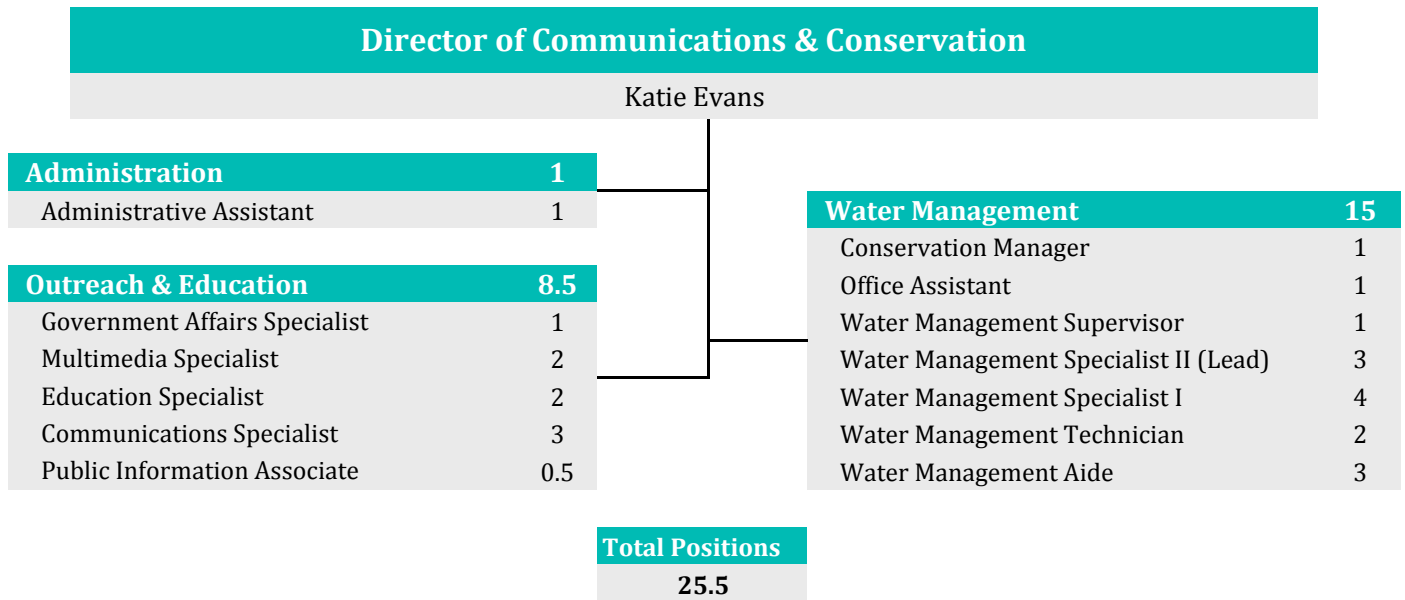
*Purchased water and QSA mitigation payments moved to Administration in fiscal 2018

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	1003	1003	Overtime	(250)	-	-	(250)	-
803	1003	2003	Conferences & Seminars	-	4,500	-	4,500	-
803	1003	2004	Travel & Per Diem	-	2,500	-	2,500	-
803	1003	2005	Training	-	4,500	-	4,500	-
803	1003	2010	Certifications & Renewals	-	1,200	-	1,200	1,200
803	1003	2801	Election Costs	-	225,000	-	225,000	225,000
803	1003	4004	Mobile Stipend	-	500	-	500	-
803	1003	4297	Small Tools & Equipment	-	1,000	-	1,000	1,000
803	1003	4808	Pool Billing	-	100	-	100	100
803	1003	7299	Other Miscellaneous	-	4,500	-	4,500	-
803	1003	8001	Office Equipment - Capital	-	-	14,000	14,000	14,000
803	1003	8007	Computer Software - Capital	-	-	175,000	175,000	175,000
803	2106	4203	Mailing Cost Postage	-	(15,000)	-	(15,000)	-
803	2106	4299	Other Materials & Supplies	-	(1,500)	-	(1,500)	-
803	2106	5599	Contract Services	-	1,500	-	1,500	-
803	2107	2599	Professional Services	-	29,000	-	29,000	29,000
Administration Total				(250)	257,800	189,000	446,550	445,300

Communications & Conservation





Department Description

The Communications & Conservation Department is comprised of two divisions: Outreach & Education and Water Management. Outreach & Education is responsible for internal communication, public outreach, education, and media relations. Water Management is responsible for the District's conservation programs, along with assisting customers in improving water use efficiency.

Mission

The mission of the Communications & Conservation Department is to inform, educate, and promote the value of water efficiency and sustainability, through a collaborative and proactive approach while demonstrating integrity, professionalism and innovation.

Division Descriptions

Outreach & Education

- Provides relevant information to customers and stakeholders utilizing several tools, including:
 - » Presentations to civic and community organizations
 - » Public tours
 - » Attending ribbon cuttings and groundbreaking
 - » Attending public events
 - » Distributing bill inserts, newsletters, fact sheets, brochures, and the annual review
 - » Distributing Proposition 218 compliant notices regarding rate changes
 - » Managing the District's website, email notifications, Facebook, and Twitter
 - » Distributing news releases, conducting media interviews, and attending editorial board meetings
 - » Utilizing paid advertising, including newspaper and magazine ads, billboards, etc.
- Provides internal communication to employees, including the publication of biweekly paycheck inserts, CVWD Connect magazine, and digital information monitors to alert employees about policies, events, and other District related news and information

- Documents District events using:
 - » Photos
 - » Videos
 - » Drone footage
 - » Audio recordings
- Works within the community to establish strong relationships with customers and stakeholders including establishing a positive perspective of the District
- Analyzes legislation and regulations, and engages with policy makers to ensure the District's best interests are considered through:
 - » Formal positions
 - » Comment letters
 - » Hearing testimony
 - » Meetings with legislative staff and elected officials
- Delivers classroom presentations and tours to students in public and private schools, in grades preschool through college. All presentations are presented by credentialed teachers and are based on state academic standards and include information such as:
 - » History of water in the Coachella Valley
 - » Water safety
 - » Water conservation
 - » The water cycle
 - » Other earth and natural sciences

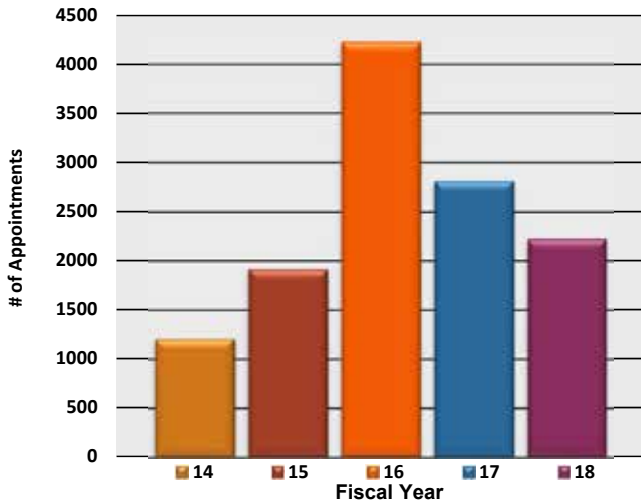
Water Management

- Helps customers improve water use efficiency through a number of conservation programs, including:
 - » Rebates for large landscape smart controllers
 - » Rebates for turf removal
 - » Rebates for sprinkler nozzle replacement
 - » Rebates for high efficiency toilets
 - » Free installation of smart irrigation controllers
 - » Free indoor conservation kits for homeowners
 - » Free water brooms and prerinse nozzles for restaurants and Home Owner Associations (HOAs)
- Provides technical assistance, including on-site conservation reviews or audits, to evaluate water use and offer suggestions to improve water use efficiency, and meet assigned water budgets
- Provides special audit program to offer technical assistance to targeted customers with exceptionally high and inefficient water use
- Investigates and enforces local and state water use restrictions and helps violators comply
- Reviews development plans of new and rehabilitated landscapes for compliance with the District's Landscape Ordinance
- Calculates the water needs for all District customers using a variety of methods to ensure the accuracy of water budgets for Budget Based Tiered Rates
- Reviews customer appeals regarding their water budget

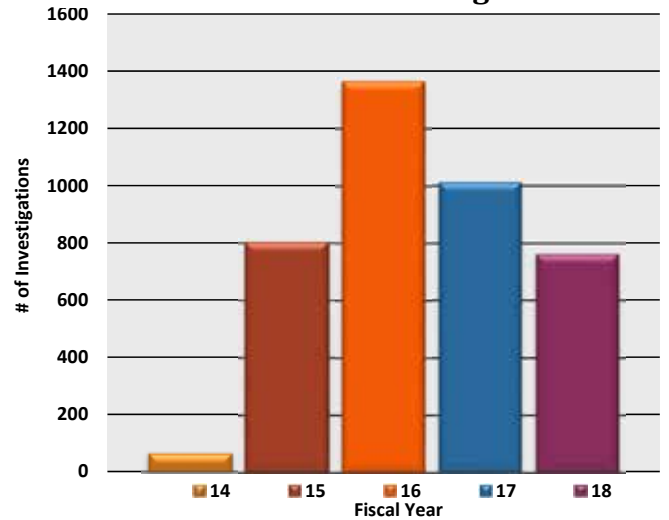
Communications & Conservation Metrics

The first graph below reflects a five-year history of site visits/conservation reviews completed by Water Management. The second graph reflects a five-year history of water waste investigations. Both graphs reflect a sharp increase in fiscal 2016, as a result of the statewide mandate to conserve water.

Site Visits / Conservation Reviews

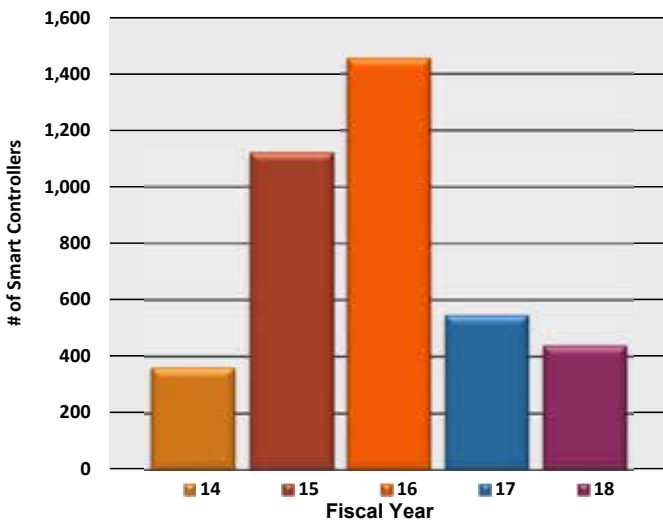


Water Waste Investigations

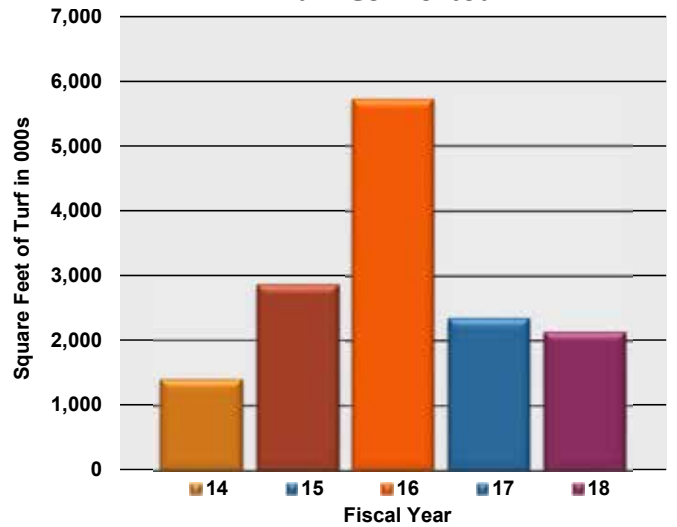


The graphs below reflect a five-year history of the number of residential and large landscape smart controllers installed and a five-year history of the total square feet of turf that has been converted to desert friendly landscape.

Smart Controllers Installed



Turf Converted



Communications & Conservation Workload Measures and EUMs

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Outreach & Education					
Media Stories (newspaper, TV, radio, etc.) Concerning CVWD Per Year	280	347	338	329	98
Number of Students Receiving Educational Presentations	15,700	16,400	16,963	10,968	6,171
News Releases	52	50	49	48	21
Tours Provided	51	52	53	55	49
Informative Presentations to Community Groups	41	69	65	65	17
Informational Booths Staffed at Community Events	43	50	57	30	36
District Sponsored Landscape Workshops Hosted	4	5	4	4	7
Informational Workshops Presented	1	5	12	2	2
Number of Active Contacts with Stakeholders in Key Areas (e.g., from local government, business, education, nongovernmental groups)	N/A	16	24	51	26
Number of Topic Letters Submitted in Regards to Legislation Affecting the District	19	9	48	31	10
Water Management					
Residential Smart Controllers Installed	296	803	929	419	334
Large Landscape Smart Controllers Installed	65	319	527	129	106
Rebates Issued to Homeowners for Landscape Conversion	114	628	1,816	528	268
Square Feet of Grass Replaced with Desert-Friendly Landscape - Homeowners	744,061	760,094	2,406,312	641,284	377,197
Rebates Issued to Large Landscape Customers for Landscape Conversion	67	212	343	178	170
Square Feet of Grass Replaced with Desert-Friendly Landscape - Large Landscape Customers	663,347	2,100,000	3,323,508	1,704,194	1,761,876
Rebates Issued Toilet Replacement Program	101	344	702	484	721
Water Waste Investigations	62	804	1,367	1,013	763
Nozzles Replaced	619	15,664	62,204	5,728	673
Plan Checks	236	344	288	278	332
Appeals	141	261	1,246	273	1,645



Installing a Smart Controller

Fiscal 2017-18 Accomplishments

Outreach & Education

- Created an educational display in the Atrium of the Steve Robbins Administrative Building
- Updated website's how-to videos and created new educational videos
- Produced and published a 100-year commemorative book to educate residents about CVWD's history and impact on the Coachella Valley
- Expanded customer outreach through increased emails and texts to targeted geographic areas
- Expanded tools for reaching customers to include Twitter
- Created a new "online store" for CVWD books and calendars
- Conducted the District's first ever Facebook Live post

Water Management

- Reviewed and updated rebate programs to improve efficiency and effectiveness by revising program requirements and processes
- Created a demonstration toolbox for use during conservation reviews
- Developed an appeals/budget review outreach program which is now being presented throughout the community
- Promoted conservation and wise water management, despite the State's mandatory conservation goals being lifted, by participating in events and speaking engagements and promoting the use of conservation programs and rebates
- Managed grant funding for agricultural and golf related grants obtained by the District
- Participated in the Golf and Water Task Force

Fiscal 2018-19 Goals

Outreach & Education

- Expand social media outreach through Facebook and Twitter, and consider Instagram
- Revise the tour process to allow a more structured schedule
- Host a celebratory 100 Year event
- Increase public awareness campaigns by using new media, including television
- Archive and catalogue photos and videos that predate our existing systems
- Create a methodology for alerting stakeholders when legislation or regulations could affect them
- Conduct customer engagement research to better understand our customers' perspective and the best ways to communicate with them

Water Management

- Launch a pilot program for tier 5 commercial customers to use water flow sensors to identify waste
- Revise the "Flood to Drip" grant funded rebate program to provide better water efficiency opportunities for agriculture customers
- Develop a Process Water Allowance Policy
- Create a procedural guide for commercial account appeals in order to better identify developments where landscape budget errors exist
- Develop a system to help Tier 5 audit program customers overcome barriers and implement suggested efficiency measures
- Redevelop the procedures to address customers who receive reoccurring infractions
- Create an improved filing system for residential mapping files, and organize past files that pre-date this new system

Department Financial Trend - Communications & Conservation

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	3,363,000	3,588,000	3,457,000	3,837,000	249,000	6.9
Professional Development	50,000	62,000	50,000	81,000	19,000	30.6
Professional Services	-	201,000	100,000	118,000	(83,000)	(41.3)
Advertising & Media	68,000	117,000	92,000	118,000	1,000	0.9
Utilities	11,000	11,000	8,000	11,000	-	-
Materials & Supplies	167,000	187,000	169,000	254,000	67,000	35.8
Motorpool	69,000	72,000	62,000	71,000	(1,000)	(1.4)
Contract Services	422,000	399,000	359,000	288,000	(111,000)	(27.8)
Miscellaneous Expense	3,247,000	5,031,000	4,656,000	4,033,000	(998,000)	(19.8)
Capital Outlay	-	100,000	-	-	(100,000)	(100.0)
Total	7,397,000	9,768,000	8,953,000	8,811,000	(957,000)	(9.8%)
Expenses by Division						
Outreach & Education	1,870,000	2,334,000	2,159,000	2,354,000	20,000	0.9
Water Management	5,527,000	7,434,000	6,794,000	6,457,000	(977,000)	(13.1)
Total	7,397,000	9,768,000	8,953,000	8,811,000	(957,000)	(9.8%)
Expenses by Fund						
Domestic Water	6,087,000	7,696,000	7,449,000	7,696,000	-	-
Canal Water	542,000	588,000	548,000	598,000	10,000	1.7
Sanitation	155,000	134,000	126,000	133,000	(1,000)	(0.7)
Stormwater	111,000	121,000	113,000	130,000	9,000	7.4
Nonpotable Water	84,000	98,000	92,000	99,000	1,000	1.0
West Whitewater Replenishment	353,000	866,000	267,000	66,000	(800,000)	(92.4)
East Whitewater Replenishment	65,000	265,000	358,000	89,000	(176,000)	(66.4)
Total	7,397,000	9,768,000	8,953,000	8,811,000	(957,000)	(9.8%)

FY 2019 Approved Supplemental Requests

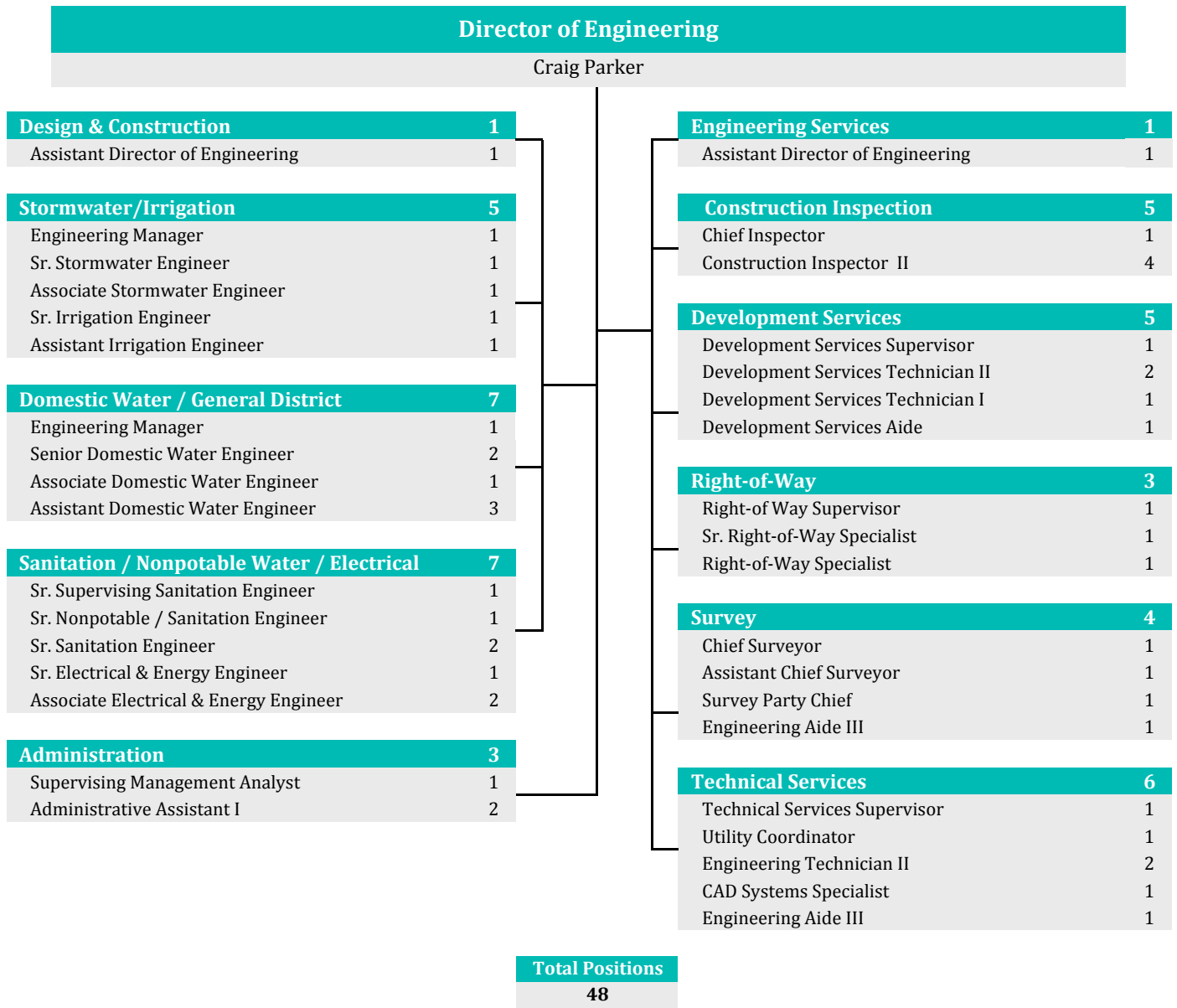
Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	2312	1003	Overtime	1,700	-	-	1,700	-
803	2312	2001	Dues and Memberships	-	905	-	905	-
803	2312	2002	Subscriptions	-	880	-	880	-
803	2312	2004	Travel and Per Diem	-	23,500	-	23,500	-
803	2312	2005	Training	-	350	-	350	-
803	2312	2703	Promotional/Educational	-	690	-	690	-
803	2312	4205	Computer Hardware	-	4,300	-	4,300	4,300
803	2312	4206	Computer Software	-	10,000	-	10,000	10,000
803	2312	4297	Small Tools and Equipment	-	30,000	-	30,000	-
803	2312	4299	Other Materials and Supplies	-	21,100	-	21,100	21,100
552	2312	5505	Contract Services	-	20,160	-	20,160	-
803	2312	7299	Other Miscellaneous	-	1,900	-	1,900	-
803	2312	Various	Offsets	-	(126,208)	-	(126,208)	-
803	2314	2003	Conferences & Seminars	-	485	-	485	-
803	2314	4205	Computer Hardware - license	-	1,200	-	1,200	-
803	2314	4299	Other Materials and Supplies	-	8,300	-	8,300	-
803	2314	Various	Offsets	-	(17,845)	-	(17,845)	-
Communications & Conservation Total				1,700	(20,283)	-	(18,583)	35,400



Middle school students take a tour of WRP 10

Engineering





Department Description

The Engineering Department consists of three divisions: Administration, Design & Construction (Stormwater/Irrigation, Domestic Water/General District, Sanitation/Nonpotable/Electrical), and Engineering Services (Construction Inspection, Development Services, Right-of-Way, Survey, and Technical Services).

Mission

Providing professional engineering and technical services that ensure long-term comprehensive planning, reliable project design, and quality construction management to meet the water related needs of the Coachella Valley.



Core Values

- Exceptional customer service
- Fair and efficient business practices
- Cost effective, sustainable, and reliable solutions
- Collaboration
- Comprehensive communication
- Commitment
- Accountability
- Integrity

Division Descriptions

Each division's primary focus is on the following functions and activities:

Administration

- Provides overall management support and leadership to ensure the Engineering Department's mission and goals are accomplished

Design & Construction

- Provides overall management support and leadership to the following:

Stormwater/Irrigation

- Responsible for planning, design, and construction of the District's Irrigation/Drainage and Stormwater facilities
- Coordinates design, construction, and operation & maintenance activities with the United States Bureau of Reclamation (USBR)

Domestic Water/General District

- Responsible for plan, design, and construction of the District's Domestic Water and General District facilities
- Develops and implements developer connection fees, including the Water System Backup Facilities Charge (WSBFC)
- Prepares hydraulic model studies to assist developers with sizing infrastructure for planned development

Sanitation/Nonpotable Water/Electrical

- Oversees planning, design, and construction of Sanitation, Nonpotable Water, and electrical facilities
- Development and implementation of CVWD's Nonpotable Water and Sanitation System Master Plans
- In coordination with the other CVWD departments, meets with developers and outside engineers to discuss concepts and general requirements for new projects and developments and reviews proposed subdivisions to determine compliance with CVWD's Development Design Manual and planned expansions
- Supports Environmental & Water Quality Division regarding California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA) and permitting issues to ensure compliance with the Safe Drinking Water Act, Clean Water Act, National Pollution Discharge Elimination System permits, etc.
- Prepares hydraulic model studies to assist developers with sizing infrastructure for planned development
- Develops and implements developer connection fees, including the Sanitation Capacity Charge (SCC)
- Leads and conducts studies in automation and instrumentation control of water reclamation plant processes and initiates treatment performance tests for telemetry systems, electrical systems, process control, and instrumentation components
- Prepares control descriptions, outlining operation, control, and telemetry of treatment processes
- Performs as a lead project manager and construction manager for expansions/renovations of sanitation and nonpotable water facilities, including water reclamation plants, pump stations, pipelines, lift stations, and water treatment facilities, through conceptual scope development, preliminary engineering, design construction, and start-up

Engineering Services

- Provides overall management support and leadership to the following:

Construction Inspection

- Inspects all Capital Improvement Projects
- Inspects all water/sewer installations for developer projects in the District's service area

Development Services

- Tracks all new development within the District service area (8 cities, 2 counties)
- Prepares development review letters and developer agreements
- Coordinates developer meetings
- Establishes new customer accounts
- Tracks infrastructure plan submittals
- Processes developer fees

Right-of-Way

- Monitors, reviews, and approves activities related to the District's fee-owned land and easements (managing over 7,000 acres of land and over 3,500 easements)
- Monitors and researches District and United States Bureau of Reclamation right-of-way
- Conveys and acquires right-of-way
- Processes encroachment permits, noninterference letters, and leases
- Supports Development Services and Survey in review of development packages

Survey

- Provides office and field survey support to all District departments
- Stakes existing utilities and easements
- Performs topographic and boundary surveys
- Reviews tract and parcel maps
- Reviews and prepares legal descriptions and plat depictions
- Prepares record of surveys

Technical Services

- Provides utility coordination and planning
- Prepares exhibits and plans using AutoCAD/Civil 3D and Geographic Information System (GIS)
- Responsible for Infrastructure mapping of District facilities with plat sheet maintenance and record drawing management
- Performs development plan check and review

Engineering Metrics

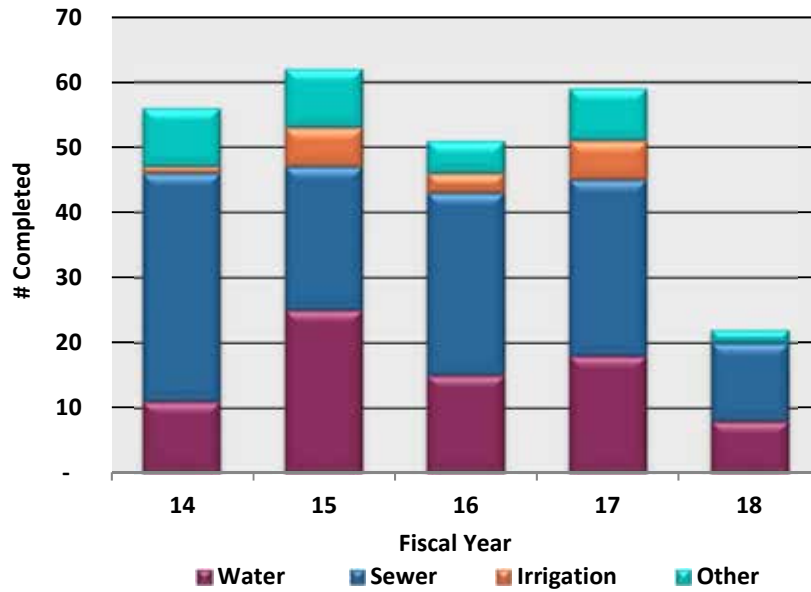
Engineering Workload Measures

Design & Construction	FY 2018	Engineering Services	FY 2018
Irrigation / Stormwater		Inspection	
Elevation Certificates Processed	62	Domestic Water	104
Flood Management Reviews Processed	42	Stormwater/Irr/Canal	24
Development Review Letters Processed	167	General District Inspections	14
Meetings for Developer Funded Projects	100	Development Services	
Meetings for all Developer Initiated Projects	71	Additional water meters installed	774
Number of Installation Agreements	14	Domestic and Sanitation Cost Notifications	1,144
Encroachment Permits/Noninterference Review Letters (NIRLs) review	73	Plans released	41
Change Orders	8	Customer contacts phone calls/emails	40,727
Customer phone calls	466	Customers at counter	2,430
Domestic Water		Development Meetings	172
Change Orders	49	Landscape Plans approved	177
Customer Phone Calls	403	Development Security Deposit Processed	103
Development Review Letters	84	Right-of-Way	
Hydraulic Models, Trench Calculations, Water Meter Sizing	637	Walk-in Customers	121
Developer Meetings	122	Research Requests/Initial Inquiries	1,151
Support Meetings with Other Departments	172	Issuance of Row Numbers for ROW Docs	112
Other Meetings Attended	809	Issuance of Row Numbers for Others	95
Board Action Items	34	New Permits/Noninterference Review Letters (NIRLs)	114
Sanitation/Nonpotable Water/Electrical		Permit Extensions	42
Developer Plan Reviews Received	23	CIB Projects	29
Developer Meetings Attended	58	Developer Meetings Attended	60
Right-of-Way Reviews	53	Developer Acquisitions/Conveyances	33
Hydraulic Models Assigned	29	Tract Map Routing	13
Trench Calculations Assigned	23	Noninterference Letter (NIL) Routing/letters	8
Sanitation - Submittals Received	431	Encroachments Researched	19
Sanitation - Requests for Information	151	Leases Researched	15
Sanitation - Change Orders	46	Bureau of Land Management/Bureau of Indian Affairs Rights	1
Nonpotable - Submittals Received	855	United States Bureau of Reclamation (USBR) Processes	22
Nonpotable - Requests for Information	290	ROW Acquisitions/Conveyances	36
Nonpotable - Change Orders	88	Land Sale Requests	10
Electrical - Sanitation/NPW Submittals Reviewed	153	Tax Default Parcels Researched	7
Electrical - Domestic Water Submittals Reviewed	51	Survey	
Electrical - Stormwater/Irr/Canal Submittals Reviewed	28	Completed Reviews of Maps/Easements	95
Electrical - General District Submittals Reviewed	39	Legal and Plats Reviewed	114
Electrical - Sanitation/NPW Inspections	90	Exhibit A Legals Written	48
Requests for Information - Sanitation/NPW	100	Staking Plans/Survey Processing Projects	339
Requests for Information - Domestic Water	39	Plotting Requests	28
Requests for Information - Stormwater/Irr/Canal	17	Records of Survey in Process	39
Requests for Information - General District	15	Internal Easement Legal and Plants Completed	49
Administration		Meetings/Training Sessions Attended	198
	FY 2018	Requests for Information/Research/Material	141
Letters Processed	1,002	Technical Services	
Environmental Services Letters	527	CIP Computer-Aided Design (CAD) Hours	644
Bids processed	17	Phone Calls	1,170
Inspection reports entered in Sungard	8,615	Customer Contact	2,800
Progress Payments routed	80	Correspondence	2,119
		Drawings/Docs Scanned/Prepared	17,670
		Board Agenda Item Maps	232

Capital Projects Completed

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Budget	99,990,000	81,487,000	115,101,000	115,056,000	104,834,000
Actual	75,839,000	54,127,000	46,336,000	58,420,000	74,009,000
% Complete	75.8%	66.4%	40.3%	50.8%	70.6%

Project As-Built (Completed) and Added to Plat Sheet



Fiscal 2017-18 Accomplishments

Strategic Plan

- Developed and implemented Nonpotable Water Master Plan
- Completed alternative Chromium-6 treatment testing
- Prepared Well-Maintenance Prioritization Plan
- Initiated the WRP 10 Alternative Energy Solar Project
- Completed design of Talavera pipeline replacement

Design & Construction

Domestic Water/General District

- Achieved an average turnaround time of two weeks or less for Development Review Letters
- Completed the Mission Hills Pressure Zone Expansion Project
- Completed the Dillion Road Domestic Water Pipeline Replacement, Phase II Project
- Completed the Replacement of Gas Chlorine Systems at Wells Sites Project
- Completed the Utility Agreement No. 503 with Cathedral City to Relocate Date Palm Bridge Facilities Project
- Completed the Reservoir 1092-1 Rehabilitation Project
- Completed the Reservoir 4701-1 Inspection and Rehabilitation Project
- Completed the Reservoir 3601-2 Design and Construction Project
- Completed the Reservoir 5504-2 Inspection and Rehabilitation Project
- Completed the Well No. 5640-2 Redrill Project

Sanitation/Nonpotable Water/Electrical

- Developed and implemented customer service focused metrics
- Achieved an average rate of 5% or less for change orders as a % of project total
- Achieved an average turnaround time of three weeks or less for trench review requests
- Completed the Desert Falls Nonpotable Water Connection Project
- Completed the Indian Springs Golf Club Connection Project
- Completed the Esmeralda Sewer Rehabilitation Project
- Completed the WRP 7 and WRP 10 Replacement of Chlorinator Feeder Cabinets Projects
- Completed the WRP 10 T1 Tertiary Filter Seal Coating Project
- Completed the WRP 9 Plant Closure Project
- Completed the WRP 7 Secondary Clarifiers and Filter Modifications Project

Stormwater/Irrigation/Construction Inspection

- Updated Irrigation Standard Drawings
- Updated Ordinance 1234.1, an Ordinance of CVWD establishing Regional Stormwater Facility Design Standards and Development Requirements
- Achieved an average turnaround time of two weeks or less for development review letters

Administration

- Tracked non-CIP charges to identify areas for improving efficiencies

Engineering Services

- Implemented electronic processing for development review letters
- Produced cost notification for service invoices within 10 business days of receipt
- Processed encroachment permits and noninterference review letters within 30 days of receipt
- Processed development map and easement reviews within five days of receipt
- Processed requests for field survey within three days of receipt
- Performed a quality control check on 300 Computer Aided Drafting (CAD) plat sheets
- Completed inputting the right-of-way information in Geographic Information System (GIS) for the Bear Creek Channel and the La Quinta Evacuation storm channel right-of-way status maps

Fiscal 2018-19 Goals

Strategic Plan

- Install wells to expand groundwater monitoring at Thomas E. Levy Groundwater Replenishment Facility
- Conduct a feasibility study of developing cost effective projects for storage of Colorado River water
- Implement Oasis Expansion Project, Phase I
- Conduct a Feasibility Study for Water Treatment Plant Waste Brine Disposable Improvement Project
- Complete improvements within Coachella Valley Stormwater Channel from Avenue 54 to Thermal Drop
- Implement findings of Well Maintenance Prioritization Plan
- Develop asbestos cement pipe (ACP) replacement strategy
- Design Avenue 66 transmission main to provide redundancy and reliability to Eastern Coachella Valley

Design & Construction

Domestic Water/General District

- Achieve a minimum 70% CIP execution rate
- Achieve an average rate of 5% or less for change orders as a % of project total
- Process a minimum 90% of development review letters within two weeks
- Process a minimum 90% of hydraulic model requests within four weeks
- Process a minimum 90% of fire flow analysis requests within two weeks
- Process a minimum 90% of trench review requests within two weeks
- Process a minimum 90% of water meter sizing requests within one week

Sanitation/Nonpotable Water/Electrical

- Achieve a minimum 70% CIP execution rate
- Achieve an average rate of 5% or less for change orders as a % of project total
- Process a minimum 90% of development review letters within two weeks
- Process a minimum 90% of hydraulic model requests within six weeks
- Process a minimum 90% of trench review requests within two weeks

Stormwater/Irrigation/Construction Inspection

- Achieve a minimum 70% CIP execution rate
- Process a minimum 90% of hydraulics and hydrology requests within four weeks
- Process a minimum 90% of developer plan reviews within three weeks

Administration

- Develop and track schedules for all capital projects
- Implement a Project Management Information System
- Update the District's Project Administration Manual
- Achieve a 5 business day processing time for task orders

Engineering Services

- Achieve a 7 to 10 day processing time for development review letters
- Approve landscape plans within 7 – 10 business days
- Continue to produce cost notification for service invoices within 10 business days of receipt
- Process right-of-way requests within 30 days
- Continue to process requests for field survey within three days of receipt
- Achieve a five day processing time for plat update requests

Department Financial Trend - Engineering

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	4,838,000	7,723,000	5,140,000	8,506,000	783,000	10.1
Outside Labor	-	-	13,000	-	-	-
Professional Development	27,000	62,000	55,000	83,000	21,000	33.9
Professional Services	982,000	1,637,000	1,254,000	3,306,000	1,669,000	102.0
Self Insurance	125,000	-	-	-	-	-
Utilities	17,000	17,000	14,000	19,000	2,000	11.8
Materials & Supplies	25,000	47,000	22,000	56,000	9,000	19.1
Motorpool	112,000	102,000	104,000	106,000	4,000	3.9
Contract Services	423,000	425,000	753,000	435,000	10,000	2.4
Safety	2,000	2,000	1,000	2,000	-	-
Purchased Water*	73,848,000	-	-	-	-	-
QSA Mitigation Payments*	7,804,000	-	-	-	-	-
Miscellaneous Expense	1,778,000	53,000	49,000	53,000	-	-
Capital Outlay	121,000	374,000	374,000	94,000	(280,000)	(74.9)
Total	90,102,000	10,442,000	7,779,000	12,660,000	2,218,000	21.2%
Expenses by Division						
<i>Engineering</i>						
Administration	1,278,000	1,571,000	1,370,000	1,822,000	251,000	16.0
Colorado River & Other*	12,851,000	-	-	-	-	-
State Water Project & Other Water Costs*	70,581,000	-	-	-	-	-
<i>Domestic Water and Sanitation</i>						
Administration	200,000	-	-	-	-	-
Domestic Water	434,000	1,582,000	573,000	1,739,000	157,000	9.9
Sanitation	361,000	1,907,000	1,222,000	2,494,000	587,000	30.8
<i>Canal, Stormwater & Electrical</i>						
Administration	-	-	-	-	-	-
Construction Inspection	698,000	1,002,000	636,000	1,047,000	45,000	4.5
Electrical Energy	115,000	368,000	138,000	400,000	32,000	8.7
Irrigation - Canal Water	497,000	602,000	439,000	839,000	237,000	39.4
Stormwater	303,000	442,000	323,000	1,009,000	567,000	128.3
<i>Engineering Services</i>						
Administration	-	-	-	-	-	-
Development Services	700,000	704,000	723,000	777,000	73,000	10.4
Technical Services	1,064,000	1,190,000	1,468,000	1,303,000	113,000	9.5
Right of Way	481,000	468,000	362,000	559,000	91,000	19.4
Survey	539,000	606,000	525,000	671,000	65,000	10.7
Total	90,102,000	10,442,000	7,779,000	12,660,000	2,218,000	21.2%
Expenses by Fund						
Domestic Water	2,281,000	3,697,000	2,607,000	4,032,000	335,000	9.1
Canal Water	6,161,000	1,296,000	856,000	1,533,000	237,000	18.3
Sanitation	1,830,000	3,480,000	2,701,000	4,382,000	902,000	25.9
Stormwater	965,000	1,174,000	979,000	1,858,000	684,000	58.3
Nonpotable Water	177,000	132,000	142,000	232,000	100,000	75.8
West Whitewater Replenishment	68,258,000	514,000	361,000	407,000	(107,000)	(20.8)
Mission Creek Replenishment	2,561,000	51,000	45,000	65,000	14,000	27.5
East Whitewater Replenishment	7,869,000	81,000	72,000	151,000	70,000	86.4
Motorpool	-	17,000	16,000	-	(17,000)	(100.0)
Total	90,102,000	10,442,000	7,779,000	12,660,000	2,218,000	21.2%

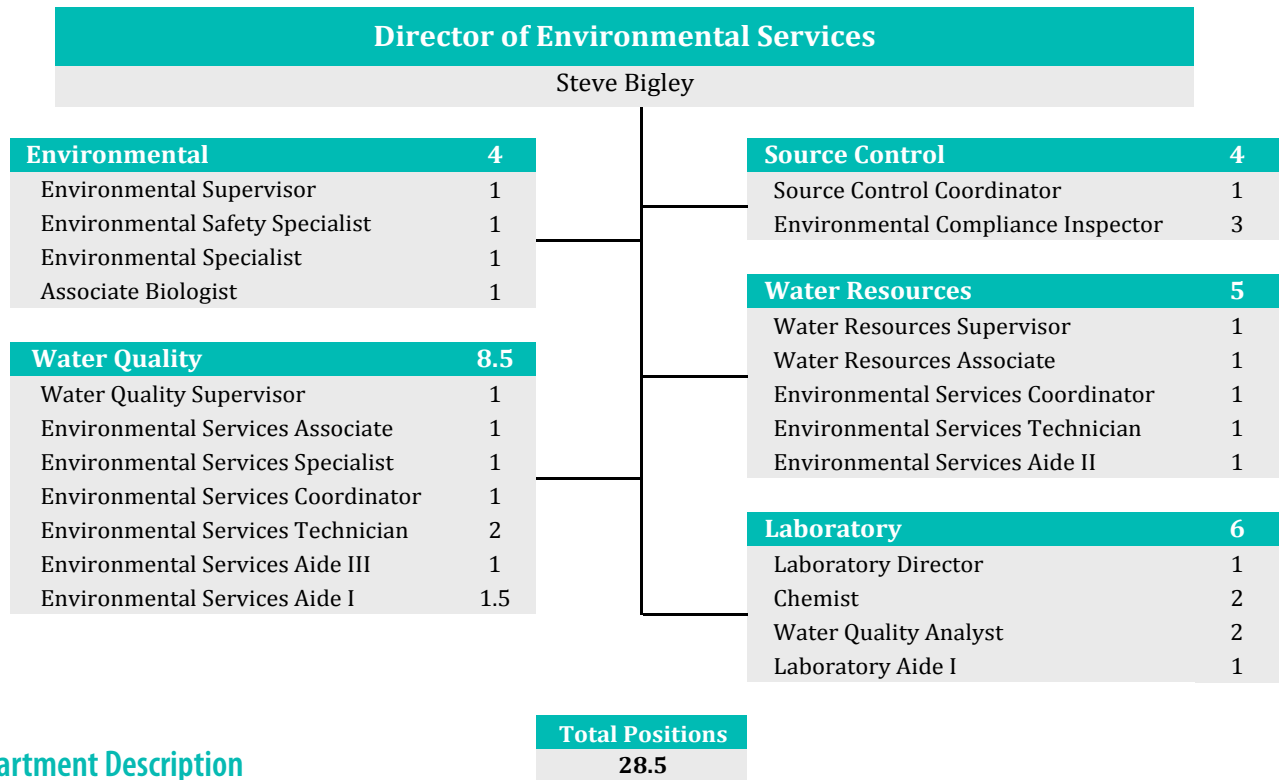
*Purchased water and QSA mitigation payments moved to Administration in fiscal 2018

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	FTEs	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	4228	1002	Electrical Engineer	1.0	169,765	-	-	169,765	-
			Personnel Total	1.0	169,765	-	-	169,765	-
803	4005	2004	Travel & Per Diem		-	500	-	500	-
803	4005	2005	Training		-	14,000	-	14,000	-
803	4005	2010	Certificates & Renewals		-	1,800	-	1,800	-
550	4005	2599	Professional Services-Prepare Water Resources Management Study		-	500,000	-	500,000	500,000
803	4005	5599	Contract Services		-	10,700	-	10,700	-
803	4005	8007	Capital Expenditure/Computer Software-Aurigo Software		-	94,475	-	94,475	94,475
803	4005	Various	Offsets		-	(26,873)	-	(26,873)	-
110	4124	2001	Dues & Membership		-	400	-	400	-
110	4124	2599	Professional Services-Coachella Valley Stormwater Channel		-	225,000	-	225,000	225,000
110	4124	2599	Professional Services-FEMA Mapping Services		-	30,000	-	30,000	-
110	4124	2599	Professional Services-Stormwater Master Plan Studies - West Salton Sea		-	250,000	-	250,000	250,000
110	4124	4004	Mobile Telephone / Data		-	1,000	-	1,000	-
110	4124	Various	Offsets		-	(1,000)	-	(1,000)	-
501	4125	2599	Professional Services-Feasibility Study Canal Storage		-	100,000	-	100,000	100,000
501	4125	4205	Computer Equipment - Microsoft Surface		-	1,700	-	1,700	1,700
535	4227	2003	Conferences & Seminars		-	1,000	-	1,000	-
535	4227	2004	Travel & Per Diem		-	1,000	-	1,000	-
535	4227	2599	Professional Services-Coachella Campus Water Supply & Fire Protection Analysis		-	75,000	-	75,000	75,000
535	4227	2599	Professional Services-Master Plan		-	100,000	-	100,000	100,000
535	4227	2599	Professional Services-Palm Desert Warehouse Feasibility Study		-	50,000	-	50,000	50,000
535	4227	2599	Professional Services-Water Treatment Brine Disposal Feasibility Study		-	2,000	-	2,000	2,000
535	4227	Various	Offsets		-	(2,000)	-	(2,000)	-
803	4228	2003	Conferences & Seminars		-	900	-	900	-
803	4228	2004	Travel & Per Diem		-	900	-	900	-
580	4228	2599	Sanitation Master Plan - Approved by the Board 01/18		-	452,630	-	452,630	452,630
803	4228	4004	Mobile Telephone / Data		-	900	-	900	-
803	4228	4205	Computer Equipment		-	950	-	950	-
803	4228	4299	Other Materials & Supplies		-	950	-	950	-
803	4434	2599	Professional Services-Document Imaging/Scanning Services		-	20,000	-	20,000	20,000
803	4434	2599	Professional Services-Inspection & Analysis of Encroachment into Storm Channel Right-of-Way		-	75,000	-	75,000	75,000
803	4434	Various	Offsets		-	(686)	-	(686)	-
803	4435	2599	Professional Services-Compliance Assistance		-	25,000	-	25,000	25,000
803	4435	Various	Offsets		-	241	-	241	-
803	4436	4205	Large Format Scanner		-	16,526	-	16,526	16,526
803	4510	1003	Overtime		13,000	-	-	13,000	13,000
803	4510	Various	Offsets		-	(53)	-	(53)	-
803	4610	1003	Overtime		25,000	-	-	25,000	-
803	4610	2599	Professional Services-On-call Inspectors		-	180,000	-	180,000	-
803	4610	4205	iPad		-	1,700	-	1,700	1,700
803	4610	4801	Equipment Usage		-	4,133	-	4,133	-
803	4610	4803	Insurance		-	358	-	358	-
			Other Total	-	38,000	2,208,151	-	2,246,151	2,002,031
			Engineering Combined Total	1.0	207,765	2,208,151	-	2,415,916	2,002,031

Environmental Services





Department Description

The Environmental Services Department is organized into five divisions that develop and implement programs to comply with local, state, and federal regulations protecting water quality and environmental resources.

Mission

Providing professional environmental services that ensure water quality and availability, environmental compliance, and biological and natural resources protection.

Core Values

- Exceptional customer service
- Efficient business practices
- Cost effective, sustainable, reliable solutions
- Collaboration
- Comprehensive communication
- Commitment
- Accountability
- Integrity

Division Descriptions

Environmental Services' primary responsibilities include water quality, groundwater replenishment monitoring and reporting, biological resource management, environmental assessments and permitting, water management planning, and advocating for water quality and environmental regulations based on good science, with particular focus on the following functions and activities:

Water Quality

- Develops and implements water quality monitoring and reporting programs for District domestic water, wastewater, recycled water, irrigation/drainage, and regional stormwater protection services
- Performs sample collection services supporting water replenishment
- Evaluates proposed regulations
- Surveys and tests new water treatment technologies
- Works with regulators and the regulated water community to develop reasonable, beneficial, and cost-effective water quality regulations
- Performs field sampling and analysis at District facilities, including domestic water and wastewater treatment plants



Water Resources

- Responsible for water resource planning, including:
 - » Coachella Valley Water Management Plan
 - » Mission Creek-Garnet Hill Water Management Plan
 - » CVWD Urban Water Management Plan
 - » Integrated Regional Water Management/Stormwater Resources (IRWM / SWR) Plan
 - » Other water resources planning activities involving coordination with other stakeholders
- Develops, implements, monitors, and reports District groundwater replenishment and water rights programs
- Monitors water levels in wells throughout the Coachella Valley to produce reports needed to evaluate water supply conditions and make water management decisions
- Works with private well operators to locate and inventory water wells to measure and report groundwater production
- Administers the following:
 - » Artesian Well Rebate Program
 - » Septic System Rehabilitation Rebate Program
 - » Water Level Monitoring Program
 - » State Well Numbering Program
- Leads the District's compliance with the Coachella Valley Agriculture Conditional Waiver
- Coordinates the District's compliance with the state's Sustainable Groundwater Management Act (SGMA)
- Manages the District's evaluation of expanding groundwater replenishment activities in the mid and east portions of the Coachella Valley

Laboratory

- Maintains a state-certified laboratory to perform timely and high quality sample analysis and reporting needed to determine compliance with water quality regulations
- Implements a Laboratory Information Management System (LIMS) needed to meet state and federal electronic reporting requirements and provide an effective data storage system for performing water quality evaluations
- Trains District staff to perform sample collection and water quality analyses

Source Control

- Evaluates, inspects, and permits commercial use of District wastewater collection and treatment facilities
- Develops and implements programs that enforce sanitation regulations protecting District wastewater collection and treatment facilities
- Evaluates proposed wastewater discharges and supports the assessment of Sanitation Capacity Charges (SCC)

Environmental

- Ensures District projects and activities are evaluated and comply with local, state, and federal environmental protection requirements such as National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), and other applicable regulations and guidelines
- Oversees the biological and cultural resources surveys used in the assessment of project impacts
- Analyzes CVWD projects for avoidance, minimization, and mitigation of environmental impacts
- Develops and implements compliance plans and mitigation monitoring plans for CVWD projects
- Coordinates mitigation requirements and compliance work for project habitat conservation and monitoring plans
- Ensures CVWD facilities, equipment, and operations are permitted according to State guidelines including:
 - » Backup power generators (air quality)
 - » CVWD staff training and employee safety (environmental safety)
 - » Materials storage, disposal, and risk management (hazardous waste)
 - » Storm Channel maintenance (biological / hydrological)
- Works with regulatory agency staff to obtain and satisfy Clean Water Act permits for District facilities and covered activities
- Participates in environmental and biological workgroups and committees focusing on regional environmental challenges (i.e. Salton Sea, Dos Palmas)

Environmental Services Metrics

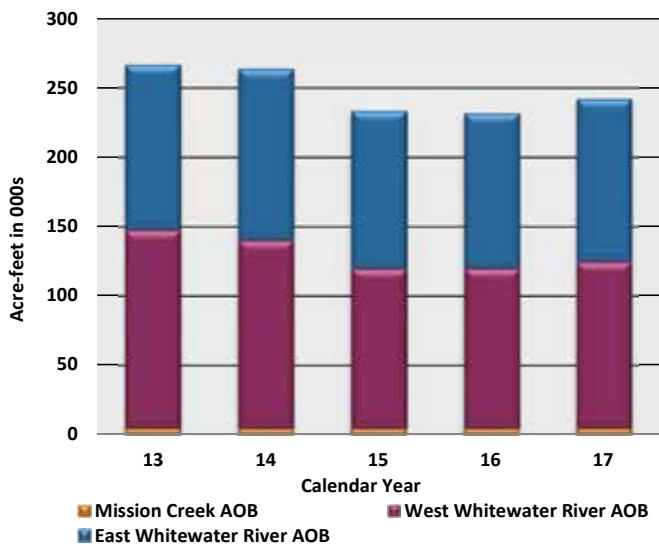
Environmental Services’ metrics are reflected in calendar year (CY) versus fiscal year (FY), as a result of existing reporting requirements.

Environmental Services Workload Measures and EUMs

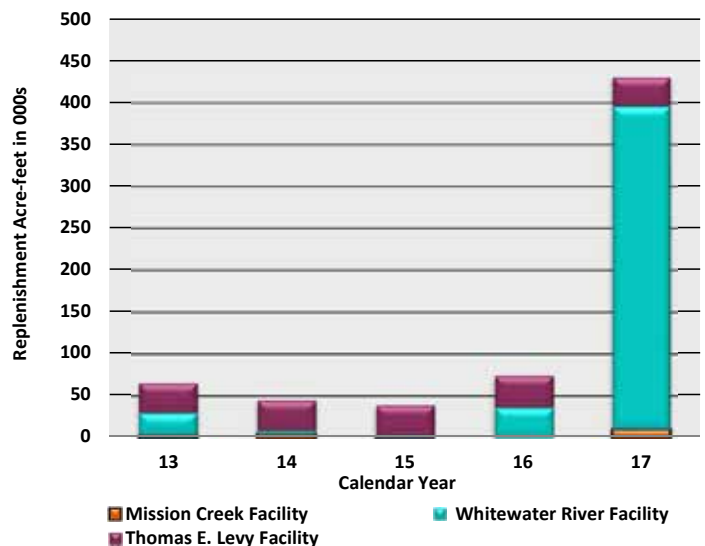
	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017
Water Quality					
Taste/Odor Complaints	12	17	15	46	24
Appearance Complaints	17	27	33	44	15
Health Concern Complaints	3	5	6	14	10
Total Complaints	32	49	54	104	49
Drinking Water Compliance Rate - Days in Compliance	100%	100%	100%	100%	100%
Water Resource					
Short-Term Water Supply Adequacy	100%	100%	100%	100%	100%
Long-Term Water Supply Adequacy	100%	100%	100%	100%	100%
Source Control					
Commercial Sites Inspected	457	866	686	767	803
% of Sites Out of Compliance	12%	20%	14%	12%	8%
% of Sites Returned to Compliance	100%	100%	100%	97%	100%
Environmental					
Greenhouse Gas Emissions (metric tons)	89,394	97,386	89,818	88,019	92,357
Laboratory					
Proficiency testing performance	100%	100%	100%	100%	97%

The first graph shows the last five years of groundwater production for the three CVWD Areas of Benefit (AOB), while the second graph depicts water delivered to each replenishment facility.

Groundwater Production by AOB



Groundwater Inflows by Facility



Fiscal 2017-18 Accomplishments

Strategic Plan

- Completed analytical and environmental roles to complete documents and analysis of the Alternative Chromium-6 (Cr-6) Treatment Project and a successful full-scale demonstration
- Completed the Alternative Energy Feasibility Study and identified a prioritized list of projects

Water Quality

- Completed Cr-6 full scale pilot monitoring for stannous chloride treatment process
- Obtained legislation for a hazardous waste exemption for evaporation ponds used to manage spent brine solutions from groundwater treatment needed to meet drinking water regulations
- Completed new contract for commercial laboratory on-call services
- Completed 2017 annual report of systems and consumer confidence report
- Completed annual Environmental Protection Agency Sludge Report
- Completed annual Municipal Separate Storm Sewer System Stormwater Report
- Completed 15 Standard Operating Procedures
- Completed 17 public notification templates
- Completed water quality monitoring plans
- Completed water quality master plan
- Completed aquifer zone/final water quality monitoring for three new wells

Water Resources

- Administered contracts and participated in the Coachella Valley Regional Water Management Group activities for Integrated Regional Water Management activities
- Completed tasks needed for compliance with the Sustainable Groundwater Management Act, including coordinating and administering Groundwater Sustainability Agency (GSA) activities and submission the first annual reports for locally managed subbasins
- Completed the Thomas E. Levy Groundwater Replenishment Facility Evaluation Report
- Completed the annual Water Supply and Replenishment Assessment Report for Areas of Benefit
- Completed monitoring and reporting for the Coachella Valley Agriculture Discharge Waiver Compliance Plan
- Completed groundwater production audits within the groundwater management areas
- Participated on CVWD's Grant Oversight Committee to integrate committee functions with Water Resources Management objectives

Laboratory

- Completed analytical work for pilot, bench scale, and full scale demonstration chromium-6 treatment studies
- Completed review and update of the Quality Assurance Manual to accurately reflect current operations
- Completed review and update of the Standard Operating Procedures to accurately reflect current operations
- Hired and trained the new Lab Aide to successfully complete all laboratory support functions

Source Control

- Completed six discharge permits for cooling tower and other nonresidential sewer system users
- Ensured dental amalgam discharges comply with the new federal rule (40CFR441)
- Completed training for a sewer collection system monitoring program
- Updated data collection and management to support paperless environment
- Updated wastewater discharge permitting for nonresidential users in conformance with revision of Regulations Governing Sanitation Service (now CVWD Code Chapter 4.05)

Environmental

- Completed Hazardous Material Tank Certifications for CVWD's Ion Exchange Treatment Plants
- Implemented capital project Habitat Mitigation Monitoring Plans and Nesting Bird Management Plans
- Completed the Environmental Review for Palm Desert Groundwater Replenishment Project
- Continued environmental coordination efforts to complete mitigation projects related to Coachella Canal Lining Project
- Procured and posted Air Quality Management District permits for lift station scrubbers
- Hired a contractor for hazardous waste hauling at various CVWD facilities
- Attended the Habitat Plan Resource Management Unit Committee and Biological Working Group meetings
- Participated in the Low Desert Weed Management Group
- Obtained a California Department of Fish and Wildlife Streambed Alteration Agreement permit for the Sky Mountain Pressure Zone Reservoir project
- Completed habitat obligations for tamarisk tree removal and monitoring at parcels adjacent to WRP 7

Fiscal 2018-19 Goals

Strategic Plan

- Continue sponsorship of the work plan for the Agriculture Drain Measurement Improvement Project
- Complete fiscal year tasks for WRP 10 Waste Discharge Requirements Study on Total Dissolved Solids and Nitrate in Groundwater
- Complete installation of shallow monitoring wells to further evaluate the feasibility of increasing replenishment at the Thomas E. Levy Groundwater Replenishment Facility

Water Quality

- Complete comments for proposed changes to MS4 National Pollutant Discharge Elimination System (NPDES) permit
- Complete lead and copper monitoring for Cove Public Water System
- Complete lead monitoring at K-12 public schools served by CVWD
- Complete monitoring work for Cr6 alternative treatment project
- Complete 2018 annual report of systems and consumer confidence report
- Complete annual Environmental Protection Agency Sludge Report
- Complete annual Municipal Separate Storm Sewer System (MS4) Stormwater Report
- Complete 15 Standard Operating Procedures
- Complete annual drain flows report
- Complete job safety analysis for tasks performed by Water Quality staff

Water Resources

- Administer contracts and participate in the Coachella Valley Regional Water Management Group to complete the Integrated Regional Water Management/ Storm Water Resources Plan Update
- Complete tasks needed for CVWD's compliance with the Sustainable Groundwater Management Act including annual reports for managed subbasins and any required plan updates
- Complete the annual Water Supply and Replenishment Assessment Report for Areas of Benefit
- Complete monitoring and reporting for the Coachella Valley Agriculture Discharge Waiver Compliance Plan
- Complete monitoring report for Salt and Nutrient Management Plan
- Complete pending and new groundwater production audits within the groundwater management areas
- Participate on CVWD's Grant Oversight Committee to integrate committee functions with Water Resources Management objectives

Laboratory

- Complete review and update of the Quality Assurance Manual to accurately reflect current operations
- Complete review and update of the Standard Operating Procedures to accurately reflect current operations
- Coordinate data migration of the old databases into SampleMaster for easy retrieval of historical data
- Continue with staff cross training to provide complete and consistent operational support independent of staff time off schedule
- Complete analytical work for Cr6 alternative treatment project

Source Control

- Continue issuing initial cooling tower discharge permits to achieve compliance with new ordinance
- Implement sewer collection system monitoring
- Complete modification of data collection and management for transfer to new building
- Implement sewer user permitting procedure
- Monitor potential cannabis cultivation facilities for discharges

Environmental

- Complete the update of Risk Management Plans for three CVWD wastewater treatment facilities (WRP 4, WRP 7, and WRP 10)
- Maintain applicable permitting for air quality compliance on CVWD facilities and equipment
- Update CVWD's guidelines for implementing California Environmental Quality Act
- Complete the Environmental Review for the 1000 Palms Flood Control Project
- Complete the Environmental Review for the Coachella Valley Stormwater Channel (CVSC) Ave 52-54 Improvement Project
- Complete the Environmental Review for the CVSC Ave 62-64 Improvement Project
- Complete the Initial Study - Mitigated Negative Declaration (ISMND) for the Nonpotable Water Connections Project
- Complete the recirculated Environmental Review for the Coachella Valley Stormwater Master Plan
- Obtain Clean Water Act permits for the construction of the Palm Desert Groundwater Replenishment Facility - Phase 2
- Continue environmental coordination efforts to complete mitigation for the Coachella Canal Lining Project
- Establish project design for created habitat projects for CVWD's permittee responsibility in the Coachella Valley Multiple Species Habitat Conservation Plan
- Implement capital project Habitat Mitigation Monitoring Plans and Nesting Bird Management Plans
- Attend habitat plan Resource Management Unit Committee, and Biological Workgroup meetings

Department Financial Trend - Environmental Services

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	3,747,000	3,993,000	3,762,000	4,042,000	49,000	1.2
Professional Development	101,000	122,000	104,000	104,000	(18,000)	(14.8)
Professional Services	821,000	638,000	743,000	1,875,000	1,237,000	193.9
Advertising & Media	-	9,000	-	2,000	(7,000)	(77.8)
Utilities	8,000	11,000	13,000	14,000	3,000	27.3
Materials & Supplies	119,000	145,000	132,000	231,000	86,000	59.3
Motorpool	95,000	95,000	96,000	93,000	(2,000)	(2.1)
Contract Services	682,000	689,000	641,000	447,000	(242,000)	(35.1)
Safety	3,000	4,000	3,000	4,000	-	-
Miscellaneous Expense	784,000	2,086,000	1,589,000	1,480,000	(606,000)	(29.1)
Capital Outlay	14,000	-	15,000	-	-	-
Total	6,374,000	7,792,000	7,098,000	8,292,000	500,000	6.4%
Expenses by Division						
Administration	1,577,000	1,626,000	1,678,000	1,072,000	(554,000)	(34.1)
Environmental	773,000	779,000	874,000	1,286,000	507,000	65.1
Laboratory	819,000	992,000	926,000	1,006,000	14,000	1.4
Source Control	498,000	518,000	510,000	550,000	32,000	6.2
Water Quality	1,640,000	1,870,000	1,771,000	2,019,000	149,000	8.0
Water Resources	1,067,000	2,007,000	1,339,000	2,359,000	352,000	17.5
Total	6,374,000	7,792,000	7,098,000	8,292,000	500,000	6.4%
Expenses by Fund						
Domestic Water	2,404,000	2,673,000	2,066,000	2,102,000	(571,000)	(21.4)
Canal Water	641,000	1,294,000	1,296,000	1,272,000	(22,000)	(1.7)
Sanitation	1,779,000	1,855,000	1,800,000	2,016,000	161,000	8.7
Stormwater	559,000	583,000	585,000	489,000	(94,000)	(16.1)
Nonpotable Water	68,000	115,000	66,000	52,000	(63,000)	(54.8)
West Whitewater Replenishment	292,000	493,000	573,000	1,049,000	556,000	112.8
Mission Creek Replenishment	86,000	207,000	187,000	380,000	173,000	83.6
East Whitewater Replenishment	541,000	568,000	522,000	929,000	361,000	63.6
Motorpool	4,000	4,000	3,000	3,000	(1,000)	(25.0)
Total	6,374,000	7,792,000	7,098,000	8,292,000	500,000	6.4%



CVWD's Ion Exchange Plant in Mecca, CA

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	4305	2001	Dues & Memberships moved to 4335	-	(80,000)	-	(80,000)	-
803	4305	2004	Travel & Per Diem	-	1,000	-	1,000	-
803	4305	2599	Professional Services-IRWM & WMP moved to 4333	-	(200,000)	-	(200,000)	-
803	4305	4803	Insurance	-	(53)	-	(53)	-
803	4305	5599	Contract Services-USGS land subsidence moved to 2599 in 4333	-	(50,000)	-	(50,000)	-
803	4305	7232	LCR Multi-Species Conservation	-	(20,000)	-	(20,000)	-
580	4330	1003	Overtime-moved to 4335	(1,200)	-	-	(1,200)	-
580	4330	4205	Computer Hardware-Tablets (4)	-	6,800	-	6,800	6,800
580	4330	4206	Computer Software-FlowLink	-	1,500	-	1,500	1,500
580	4330	4801	Equipment Usage	-	4,133	-	4,133	-
580	4330	4803	Insurance	-	358	-	358	-
110, 535 550, 580	4331	2599	Professional Services-On-call Consultant	-	325,000	-	325,000	325,000
501	4331	2599	Professional Services-Environmental Compliance for ROW	-	15,000	-	15,000	-
803	4331	4004	Mobile Telephone/Data	-	180	-	180	-
803	4331	4803	Insurance	-	(53)	-	(53)	-
803	4331	7202	Permits & Fees	-	10,000	-	10,000	-
803	4333	2003	Conferences & Seminars	-	950	-	950	-
803	4333	2004	Travel & Per Diem	-	950	-	950	-
550, 551 552, 580	4333	2599	Professional Services-Support for Groundwater Management and Compliance with New Regulatory Requirements - \$250k from 4305	-	850,000	-	850,000	600,000
550, 551 552	4333	2599	Professional Services-Annual Reports for Whitewater River Subbasin and	-	72,000	-	72,000	-
803	4333	2701	Legal Notices	-	(7,500)	-	(7,500)	-
803	4333	4803	Insurance	-	(160)	-	(160)	-
803	4335	1003	Overtime-moved \$1,200 from 4330	2,100	-	-	2,100	-
803	4335	2001	Dues & Memberships moved from 4305	-	61,000	-	61,000	-
803	4335	4004	Mobile Telephone/Data	-	2,700	-	2,700	-
552	4335	4297	Low Purge Pumps for 8 Nested Well Sites	-	45,000	-	45,000	45,000
580	4335	4297	Low Purge Pumps for 3 Monitoring Wells at WRP 2	-	5,000	-	5,000	5,000
535	4335	4297	Low Purge Pumps for 10 Monitoring Wells	-	30,250	-	30,250	30,250
803	4335	4803	Insurance	-	(266)	-	(266)	-
501, 535 552, 580	4335	5502	Laboratory	-	(2,570)	-	(2,570)	-
803	4335	7202	Permits & Fees	-	(96,300)	-	(96,300)	-
803	4337	2004	Travel & Per Diem	-	1,500	-	1,500	1,500
803	4337	2005	Training-LIMS Advanced Training	-	2,000	-	2,000	2,000
803	4337	2005	Training	-	2,000	-	2,000	-
803	4337	5503	Software Support Agreement-Licenses for I mobile (4)	-	16,000	-	16,000	16,000
803	4337	5599	Contract Services	-	258	-	258	-
Environmental Services Total				900	996,677	-	997,577	1,033,050

*Facilities &
Maintenance*



Director of Facilities & Maintenance

Dan Charlton

Administration	4
Management Analyst	1
Asset Mgmt. Program Coordinator	1
Administrative Assistant I	1
Operations & Maint. Scheduler	1

Operations	1
Operations Manager	1

Stormwater & Drainage	15
Stormwater & Drainage Maint. Supv.	1
Stormwater & Drainage Crew Chief	1
Equipment Operator II	5
Equipment Operator I	8

Canal & Distribution	17
Canal & Distribution Supervisor	1
Canal Crew Chief	1
Distribution Crew Chief	1
Irrigation System Worker III	2
Irrigation System Worker II	3
Irrigation System Worker I	3
Irrigation Utility Worker I	4
Equipment Operator I	1
Meter Repair Worker II	1

Facilities Maintenance	8
Facilities Maintenance Supervisor	1
Facilities Maintenance Crew Chief	1
Senior Facilities Worker	1
Facilities Worker	5

Electronics	17
Electronics Supervisor	1
Assistant Electronics Supervisor	1
Electronics Technician III	2
Electronics Technician II	5
Electronics Technician I	4
Electronics Technician Trainee	4

Electrical	25
Electrical Supervisor	1
Assistant Electrical Supervisor	1
Electrical Crew Chief	1
Electrician IV	2
Electrician III	3
Electrician II	8
Electrician I	2
HVAC Technician II	2
HVAC Technician I	1
Maintenance Worker/Operator	1
Maintenance Worker	3

Building Maintenance	18
Building Maintenance Supervisor	1
Maintenance Crew Chief	1
Building Maintenance Trades Worker	6
Maintenance Worker	4
Welding Crew Chief	1
Welder II	2
Welder I	3

Motorpool - Auto Shop	18
Fleet Manager	1
Autoshop Supervisor	1
Crew Chief	2
Automotive Technician III	3
Automotive Technician II	5
Automotive Technician I	2
Parts Specialist II	1
Parts Specialist I	1
Automotive Service Worker I	1
Auto Shop Attendant	1

Total Positions

124



Department Description

Facilities & Maintenance consists of eight divisions that contribute a variety of specialized skills and trades. These divisions include: stormwater & drainage, canal & distribution, and facilities maintenance which report directly to the Operations Manager, along with electronics, the electrical division (which includes HVAC maintenance and pump maintenance), building maintenance, and motorpool – auto shop. All divisions are supported by the administration division.

Mission

The Facilities & Maintenance Department is dedicated to providing proactive, courteous, and professional services to our internal and external customers by developing and deploying a staff of skilled technicians, operators, and craftsmen who are committed to providing superior workmanship and outstanding service. We strive to consistently exceed the expectations of our fellow departments by maintaining a work environment in which Facilities & Maintenance staff members can provide our customers with exceptional service while furthering the mission of Coachella Valley Water District.

Core Values

- Integrity
- Accountability
- Teamwork
- Loyalty

Division Descriptions

Facilities & Maintenance performs a wide array of services that support various areas of the District, with particular focus on the following functions:

Administration

- Supports the various divisions within the Facilities & Maintenance Department in an effort to provide proactive, courteous, and professional services to internal and external customers
- Develop and implement CVWD's Asset Management Program

Stormwater & Drainage

- Maintains the Whitewater River and Coachella Valley Stormwater Channels and its tributaries
- Operates and maintains the Whitewater Groundwater Replenishment Facility
- Provides heavy equipment and other related support services to other departments

Canal & Distribution

- Maintains the Coachella Canal and the Irrigation Distribution System
- Operates and maintains the Quagga Mussel Prevention Facility

Facilities Maintenance

- Responsible for the landscaping and maintenance of all CVWD campuses
- Manage on-call maintenance contracts for well sites and vacant properties

Electronics

- Responsible for the design and installation of electronic systems for various CVWD infrastructure
- Maintain control systems for all domestic, sanitation, irrigation, nonpotable, and stormwater facilities
- Perform design review for the control systems contained within capital improvement projects
- Manage compliance with the Federal Communications Commission (FCC) licensing program

Electrical

- Responsible for maintenance of all electrical and mechanical equipment for all CVWD facilities
- Perform design review (drawings and specifications) of capital improvement projects
- Inspect and implement upgrade projects for electrical and mechanical equipment
- Coordinate compliance with National Electrical Code and National Fire Protection Association
- Provide operational training for newly-installed or upgraded electrical devices and systems

HVAC Maintenance

- Responsible for pump and motor maintenance and repair for domestic, irrigation, drainage, and replenishment at all heating, ventilating, and air conditioning (HVAC) equipment for all CVWD facilities
- Inspect and implement upgrade projects for HVAC equipment

Pump Maintenance

- Responsible for all domestic, irrigation, drainage, and recharge pump and motor maintenance and repair at all District facilities
- Responsible for deep-well video recording and analysis and specialized pump troubleshooting, including vibration analysis
- Responsible for cleaning, sandblasting, painting, and general clean-up of pumping plants, and rigging for crane lifts

Building Maintenance

- Maintains all of CVWD Campuses
- Provide concrete, specialty coatings, and other related support services for other Departments
- Manage various on-call service contracts for CVWD
- Perform all steel design and fabrications for CVWD infrastructure

Motorpool – Auto Shop

- Maintain and perform repairs on CVWD's fleet
- Acquire and dispose of all CVWD vehicles and equipment
- Manage CVWD's fueling stations



Changing out plants in the District's demonstration garden

Facilities & Maintenance Metrics

Facilities & Maintenance Workload Measures

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Stormwater & Drainage					
Vegetation Maintenance of Stormwater Channel (Linear Feet)	221,760	313,760	462,070	390,847	288,535
Percolation Ponds Ripped	29	23	28	27	22
Percolation Pond Sediment Excavation (Cubic Yards)	N/A	144,000	142,541	132,990	178,551
Maintenance of Service Roads (Miles)	N/A	21	32	44	115
Canal & Distribution					
Concrete Panel Replacement	60	60	30	60	35
Maintenance of Radial Gates	1	1	1	2	2
Repair of Distribution Valves	106	68	63	59	66
Replacement of Distribution Valves	18	43	46	39	25
Distribution Leak Repairs	109	104	92	64	58
Replacement of Distribution Laterals (Linear Feet)	697	2,045	2,278	1,910	1,222
Maintenance of Canal Service Roads (Miles)	N/A	260	299	480	250
Facilities Maintenance					
Maintenance of Facilities	N/A	890	755	775	815
Inspection of Facilities	N/A	2,766	3,027	3,289	3,698
Weed Abatement of Facilities	N/A	148	140	259	532
Electronics					
Plant Instrumentation Calibrations	N/A	N/A	-	73	696
Preventative Maintenance of Communication Systems	N/A	N/A	455	458	116
Maintenance of Weather Stations	N/A	N/A	47	51	46
Electrical					
Electrical Site Maintenance	N/A	N/A	81	183	270
HVAC Maintenance					
Maintenance of HVAC Systems	N/A	N/A	76	426	1,241
Pump Maintenance					
Pump Maintenance	N/A	N/A	51	118	1,433
Preventative Maintenance of Pump Generators	N/A	N/A	205	1,711	748
Building Maintenance					
Graffiti Removal	N/A	54	31	57	44
Replacement of Domestic Water Meter Boxes	N/A	N/A	34	12	43
Irrigation Meter Can Locking Devices	N/A	N/A	68	61	82
Extension of Irrigation Valve Stems	N/A	N/A	105	85	79
Motorpool - Auto Shop					
Fleet Capital Improvement Projects Completed	65%	84%	77%	97%	74%

2019 Facilities & Maintenance

The following tables reflect the percentage of costs incurred on recurring and nonrecurring expenses for maintenance activities, along with the percentage of man-hours worked on recurring and nonrecurring activities by division, for fiscal 2016, 2017, and 2018.

Facilities & Maintenance O&M Cost Ratios

	FY 2016		FY 2017		FY 2018	
	Recurring	Nonrecurring	Recurring	Nonrecurring	Recurring	Nonrecurring
Stormwater & Drainage						
Stormwater & Drainage	82%	18%	76%	24%	83%	17%
Canal & Distribution System Maintenance						
Canal Distribution Maintenance	10%	90%	7%	93%	22%	78%
Canal Maintenance	75%	25%	76%	24%	70%	30%
Facilities Maintenance						
Carpenter Shop	2%	98%	4%	96%	3%	97%
Welding Shop	4%	96%	4%	96%	4%	96%
Facilities Maintenance	82%	18%	85%	15%	86%	14%
Electronics						
Electronic Technicians	5%	95%	9%	91%	11%	89%
Electrical						
Electricians	13%	87%	14%	86%	17%	83%
Air Conditioners	65%	35%	65%	35%	53%	47%
Pump Maintenance						
Pump Maintenance	30%	70%	22%	78%	26%	74%
Combined Ratio Facilities & Maintenance	43%	57%	41%	59%	45%	55%

Facilities & Maintenance O&M Labor Hour Ratios

	FY 2016		FY 2017		FY 2018	
	Recurring	Nonrecurring	Recurring	Nonrecurring	Recurring	Nonrecurring
Stormwater & Drainage						
Stormwater & Drainage	72%	28%	65%	35%	67%	33%
Canal & Distribution System Maintenance						
Canal Distribution Maintenance	12%	88%	8%	92%	26%	74%
Canal Maintenance	66%	34%	76%	24%	60%	40%
Facilities Maintenance						
Carpenter Shop	3%	97%	5%	95%	4%	96%
Welding Shop	2%	98%	3%	97%	3%	97%
Facilities Maintenance	83%	17%	82%	18%	86%	14%
Electronics						
Electronic Technicians	4%	96%	11%	89%	8%	92%
Electrical						
Electricians	12%	88%	15%	85%	19%	81%
Air Conditioners	70%	30%	74%	26%	54%	46%
Pump Maintenance						
Pump Maintenance	64%	36%	51%	49%	43%	57%
Combined Ratio Facilities & Maintenance	37%	63%	36%	64%	34%	66%

Fiscal 2017-18 Accomplishments**Strategic Plan**

- Hired an Asset Management Program Coordinator
- Implemented the Asset Management Program for Wastewater, Fleet, and Irrigation (Phase 2, Part 1)
- Submitted the Garfield Construction Habitat Project Work Plan to the Coachella Valley Conservation Commission

Administration

- Developed a comprehensive Facilities & Maintenance Departmental Annual Report
- Hired an Operations Manager to oversee Canal & Distribution, Stormwater & Drainage, and Facilities Maintenance
- Completed the Whitewater Groundwater Replenishment Facility Intake Improvement Project

Stormwater & Drainage

- Completed a Drainage System Preventative Maintenance Program
- Replenished 386,000 acre-feet at the Whitewater Groundwater Replenishment Facility
- Removed 178,000 cubic yards of sediment from the Whitewater Groundwater Replenishment Facility

Canal & Distribution

- Completed the Concrete Panel Replacement Program for the Upper and Lower Canal
- Finalized the Valve Preventative Maintenance Program for the Irrigation Distribution System
- Assisted in the construction of the Coachella Canal Lining Replacement Project (CCLP)

Facilities Maintenance

- Developed a Well Site Landscape Maintenance Program
- Completed the Demonstration Garden Landscape Upgrade Project in Palm Desert
- Designed and constructed the Coachella Landscaping Upgrade Project

Electronics

- Provided support services for the SCADA Improvement Project (Software, Communications, and Automation)
- Established a comprehensive preventative maintenance program for Electronics
- Completed the Programmable Logic Control (PLC) Upgrade Projects at Coachella and Palm Desert

Electrical

- Completed the Booster Station 04701, Well 5640-2, and WRP-10 Tertiary Improvement Projects
- Assisted with Coachella Motor Barn & Welding Shop Crane Installation Project
- Completed the Coachella Energy Management System Upgrade Project

Building Maintenance

- Completed the Roll-Up Door Upgrade Project (Coachella, Palm Desert and WRP-10)
- Assisted with retrofit design and fabrication of the chlorination buildings
- Assisted with Coachella Welding Shop and Motor Barn Overhead Crane Project

Motorpool – Auto Shop

- Completed the Diesel Fuel Dispenser Upgrade Project in Coachella
- Executed the Capital Improvement Budget for Motorpool (92% completion rate)
- Completed the Diesel Particulate Filter Retrofit Project

Fiscal 2018-19 Goals

Strategic Plan

- Implement the Inventory and Condition Assessment for Domestic, Stormwater, Canal, and General District (Asset Management Program Phase 2, Part 2)
- Finalize the Alternate Fuel Feasibility Study
- Revise and resubmit the Johnson Street Constructed Habitat Project Work Plan

Administration

- Develop and implement the Computerized Maintenance Management System (CMMS) Training Program
- Complete the Pump Maintenance Inventory Control Program
- Finalize the Contract Management Control Program for Facilities and Maintenance

Stormwater & Drainage

- Complete a Stormwater System Preventative Maintenance Program
- Maximize replenishment at the Whitewater Groundwater Replenishment Facility (minimum of 125,000 af)
- Complete the Sediment Removal Replacement Project (minimum of 125,000 cubic yards) at the Whitewater Groundwater Replenishment Facility

Canal & Distribution

- Complete the Radial Gate Retrofit Project (Milepost 90.6)
- Develop and implement a Canal Actuator Training Program
- Develop and manage the Irrigation Distribution On-Call Contract Services Program

Facilities Maintenance

- Complete the WRP-10 Landscape Improvement Project
- Complete the Domestic Water Facility Tree Removal Project
- Complete the Landscape Irrigation Retrofit Project at the Steve Robbins Administration Building

Electronics

- Replace the Variable Frequency Drive (VFD) Improvement Project at WRP 10 (Headworks)
- Complete the Programmatic Logic Control (PLC) Upgrade Project at Coachella
- Provide support services for the Canal PLC Upgrade Project (SCADA)

Electrical

- Complete the Coachella Generator & Switchgear Upgrade Project
- Complete the Coachella Administration Building HVAC System Upgrade Project
- Provide electrical support for the Palm Desert Critical Services Building Project

Building Maintenance

- Design and construct the Coachella Restroom Upgrade Project, Phase II
- Complete the Steve Robbins Administration and Palm Desert Operations Interior Painting Project
- Complete the Coachella Entrance Gate Upgrade Project

Motorpool – Auto Shop

- Complete the Capital Improvement Budget for Motorpool (minimum of 95%)
- Finalize the Vehicle Specification and Standardization Upgrade Project
- Implement the Vehicle Maintenance Reporting System (VMRS) Improvement Project

Department Financial Trend - Facilities & Maintenance

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	14,363,000	14,970,000	13,228,000	15,676,000	706,000	4.7
Outside Labor	5,000	-	-	-	-	-
Professional Development	118,000	159,000	119,000	156,000	(3,000)	(1.9)
Professional Services	460,000	1,461,000	1,460,000	2,566,000	1,105,000	75.6
Insurance Costs	185,000	230,000	239,000	230,000	-	-
Utilities	1,558,000	1,377,000	1,319,000	1,438,000	61,000	4.4
Materials & Supplies	4,557,000	4,223,000	4,237,000	4,190,000	(33,000)	(0.8)
Motorpool	2,279,000	2,489,000	2,178,000	2,509,000	20,000	0.8
Contract Services	3,266,000	5,681,000	5,272,000	4,411,000	(1,270,000)	(22.4)
Safety	47,000	45,000	44,000	51,000	6,000	13.3
Miscellaneous Expense	367,000	545,000	327,000	427,000	(118,000)	(21.7)
Capital Outlay	105,000	128,000	30,000	2,222,000	2,094,000	1,635.9
Total	27,310,000	31,308,000	28,453,000	33,876,000	2,568,000	8.2%
Expenses by Division						
Administration	1,263,000	4,583,000	4,486,000	3,915,000	(668,000)	(14.6)
Buildings & Facilities	1,205,000	1,170,000	1,019,000	3,451,000	2,281,000	195.0
<i>Building Trades</i>						
Administration	501,000	538,000	517,000	595,000	57,000	10.6
Carpentry	1,142,000	1,400,000	1,318,000	1,554,000	154,000	11.0
Welding	700,000	786,000	608,000	817,000	31,000	3.9
<i>Facilities Maintenance</i>						
Administration	385,000	440,000	456,000	473,000	33,000	7.5
Facilities Maintenance	592,000	643,000	612,000	687,000	44,000	6.8
<i>Electrical</i>						
Administration	606,000	661,000	522,000	611,000	(50,000)	(7.6)
Electricians	2,384,000	3,142,000	2,548,000	3,121,000	(21,000)	(0.7)
Pump Maintenance	922,000	903,000	818,000	925,000	22,000	2.4
Air Conditioning	347,000	437,000	397,000	482,000	45,000	10.3
<i>Canal Distribution System</i>						
Administration	1,021,000	1,039,000	999,000	1,073,000	34,000	3.3
Distribution Maintenance	950,000	1,096,000	932,000	1,444,000	348,000	31.8
Canal Maintenance	2,350,000	2,583,000	2,289,000	2,523,000	(60,000)	(2.3)
<i>Electronics</i>						
Administration	888,000	830,000	1,051,000	1,057,000	227,000	27.3
Electronic Technicians	1,964,000	2,253,000	1,634,000	2,171,000	(82,000)	(3.6)
<i>Stormwater Drainage</i>						
Administration	495,000	437,000	343,000	421,000	(16,000)	(3.7)
Stormwater Drainage Crew	4,256,000	4,567,000	4,322,000	4,794,000	227,000	5.0
<i>Mechanical</i>						
Administration*	286,000	-	-	-	-	-
Mechanical Technicians*	1,681,000	-	-	-	-	-
<i>Fleet</i>						
Administration	581,000	614,000	638,000	728,000	114,000	18.6
Autoshop	2,610,000	2,886,000	2,692,000	2,845,000	(41,000)	(1.4)
Service Station	181,000	300,000	252,000	189,000	(111,000)	(37.0)
Total	27,310,000	31,308,000	28,453,000	33,876,000	2,568,000	8.2%

Continued on the following page

Department Financial Trend - Facilities & Maintenance

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Fund						
Domestic Water	6,078,000	8,418,000	6,615,000	9,499,000	1,081,000	12.8
Canal Water	6,244,000	9,685,000	8,645,000	8,382,000	(1,303,000)	(13.5)
Sanitation	6,296,000	5,712,000	4,312,000	6,004,000	292,000	5.1
Stormwater	3,836,000	4,709,000	3,809,000	4,370,000	(339,000)	(7.2)
Nonpotable Water	262,000	686,000	667,000	381,000	(305,000)	(44.5)
West Whitewater Replenishment	1,009,000	1,139,000	1,113,000	985,000	(154,000)	(13.5)
Mission Creek Replenishment	8,000	1,000	1,000	-	(1,000)	(100.0)
East Whitewater Replenishment	194,000	334,000	184,000	346,000	12,000	3.6
Motorpool	3,383,000	624,000	3,107,000	3,909,000	3,285,000	526.4
Total	27,310,000	31,308,000	28,453,000	33,876,000	2,568,000	8.2%

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	5005	2003	Conferences & Seminars-transferred from 5050 4298	-	3,200	-	3,200	-
803	5005	2004	Travel & Per Diem-transferred from 5050 4298	-	3,500	-	3,500	-
Various	5005	2599	Professional Services-Asset Management Master Plan	-	2,561,000	-	2,561,000	2,561,000
803	5005	5599	Contract Services-Pest Control & Car Wash Services	-	2,500	-	2,500	-
803	5005	5599	Contract Services-Traffic Control for Asset Inventory	-	50,000	-	50,000	50,000
501	5005	5599	Contract Services-Operation, Repair, & Maintenance along Coachella Canal & Dos Palmas Preserve	-	220,000	-	220,000	-
803	5005	7201	Equipment Leases-Copier, Scanner, Printer	-	2,000	-	2,000	-
803	5005	Various	Offsets	-	293	-	293	-
803	5050	4298	Work Orders-transferred to 5005 2003	-	(3,200)	-	(3,200)	-
803	5050	4298	Work Orders-transferred to 5005 2004	-	(3,500)	-	(3,500)	-
803	5050	5599	Contract Services-Replace Halon Fire Suppression System	-	111,000	-	111,000	111,000
803	5050	4001	Electricity IID	-	30,000	-	30,000	-
803	5050	4002	Electricity SCE	-	17,500	-	17,500	-
803	5050	8002	Trunked Radio System	-	-	2,129,000	2,129,000	2,129,000
803	5105	2005	Training	-	6,000	-	6,000	6,000
803	5105	4297	Small Tools & Equipment-Generator/Welding Machines (4)	-	25,000	-	25,000	25,000
803	5105	Various	Offsets	-	98	-	98	-
803	5140	1003	Overtime	5,000	-	-	5,000	-
803	5140	5599	Contract Services-Move Lab to Critical Services Building	-	65,000	-	65,000	65,000
803	5140	5599	Contract Services-Maintenance on Roll-Up Doors	-	3,600	-	3,600	-
803	5140	4801	Equipment Usage	-	20,659	-	20,659	-
803	5140	Various	Offsets	-	(3,740)	-	(3,740)	-
803	5141	4801	Equipment Usage	-	6,886	-	6,886	-
803	5141	8003	Scotchman Manual Cold Saw	-	-	18,000	18,000	18,000
803	5141	Various	Offsets	-	308	-	308	308
535, 580	5205	5599	Contract Services-Landscape Services	-	14,000	-	14,000	-
803	5205	4803	Offsets	-	(107)	-	(107)	-
803	5247	5599	Contract Services-Tamarisk Tree Trimming	-	4,700	-	4,700	-
803	5247	Various	Offsets	-	(884)	-	(884)	-
803	5305	4297	Small Tools & Equipment-Oil Lube Skid	-	7,500	-	7,500	7,500
803	5305	4004	Mobile Telephone / Data	-	900	-	900	-
803	5305	6001	Uniform Rental/Cleaning	-	690	-	690	-
803	5305	4803	Offsets	-	(160)	-	(160)	-
803	5342	1003	Overtime	4,000	-	-	4,000	-
803	5342	Various	Offsets	-	(2,851)	-	(2,851)	-

Continued on the following page

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	5343	1003	Overtime	1,000	-	-	1,000	-
803	5343	5599	Contract Service	-	(10,000)	-	(10,000)	-
803	5343	Various	Offsets	-	747	-	747	-
803	5344	4803	Offsets	-	(107)	-	(107)	-
501	5405	2005	Training	-	2,100	-	2,100	-
501	5405	4001	Electricity IID	-	15,000	-	15,000	-
501	5405	Various	Offsets	-	(3,895)	-	(3,895)	-
501	5445	4298	Work Orders-transferred from 5446	-	7,900	-	7,900	-
501	5445	5599	Contract Services-On-Call Maintenance Contractor	-	300,000	-	300,000	-
501	5445	Various	Offsets	-	(143)	-	(143)	-
501	5446	1003	Overtime-transferred \$7,900 to 5445 4298	(10,000)	-	-	(10,000)	-
501	5446	4214	Chemicals Treatment	-	(75,000)	-	(75,000)	-
501	5446	8003	Actuator (2) and Radial Gate (1)	-	-	75,000	75,000	75,000
501	5446	Various	Offsets	-	71	-	71	-
803	5505	2005	Training	-	34,550	-	34,550	34,550
803	5505	4001	Electricity IID	-	1,000	-	1,000	-
803	5505	7201	Increased Costs of Lease of Hill Top Microwave Radio Sites	-	20,000	-	20,000	-
803	5505	6001	Uniform Rental/Cleaning	-	1,410	-	1,410	1,410
803	5505	4803	Offsets	-	(107)	-	(107)	(107)
803	5548	Various	Offsets	-	(616)	-	(616)	-
110	5605	4008	Water	-	(10,000)	-	(10,000)	-
803	5605	Various	Offsets	-	73	-	73	-
Various	5649	1003	Overtime	20,400	-	-	20,400	20,400
110, 550	5649	1015	Standby	13,600	-	-	13,600	13,600
803	5649	4298	Work Orders	-	25,000	-	25,000	-
110	5649	5599	Contract Services-Tree Removal Services within CVSWC	-	200,000	-	200,000	200,000
803	5649	4802	Fuel	-	15,000	-	15,000	15,000
803	5649	Various	Offsets	-	(1,465)	-	(1,465)	-
601	9400	4803	Insurance	-	(1,732)	-	(1,732)	-
Facilities & Maintenance Total				34,000	3,661,678	2,222,000	5,919,410	5,332,661



Steam cleaning the arm of a hydraulic excavator

Finance



Director of Finance

Geoffery Kiehl

Finance Administration	6
Financial Analyst	2
Management Analyst	2
Budget Analyst I	1
Administrative Assistant I	1

Accounting	9
Controller	1
Accountant	2
Accounting Technician III	2
Accounting Technician II	3
Accounting Technician I	1

Purchasing / Warehouse	12
Contracts & Procurement Manager	1
Purchasing Technician II	1
Purchasing Technician I	3
Warehouse Supervisor	1
Senior Storekeeper (Lead)	1
Storekeeper III	1
Storekeeper	3
Accounting Technician I	1

Total Positions
28

Department Description

The Finance Department keeps fiscal responsibility at the forefront of all we do, and is committed to managing the financial affairs of the District in accordance with the highest standards of ethical and professional conduct.

Mission

With integrity, excellence, and dedication, the Finance Department is committed to providing fair, accurate, complete, and timely information to all we serve while adhering to all legal requirements.

Core Values

- Collaboration
- Respectfulness
- Efficiency
- Accountability
- Transparency
- Integrity
- Vision
- Effectiveness

Division Descriptions

Each division’s primary focus is on the following functions and activities:

Finance Administration

- Compiles financial data, economic information, and statistics
- Develops financial analysis, revenue forecasts, and rates for the Domestic Water, Canal Water, Sanitation, Stormwater, Nonpotable Water, and Replenishment Funds
- Coordinates, develops, and monitors the District’s operating and capital improvement budgets, along with preparing and monitoring the five-year forecast



- Maintains, reconciles, and reports on Capital Improvement Projects (CIP) and non-CIP projects
- Administers fiscal controls and policies
- Produces quarterly financial reports
- Compiles and produces the annual operating budget
- Receives and tracks developer deposits
- Administers grant programs, prepares applications, coordinates compliance with other departments and other agencies, and prepares necessary reports for the grantor

Accounting

- Manages general accounting, payroll preparation and reporting, accounts payable and receivable functions, grant accounting, along with cash and investments reporting
- Ensures that the District meets all Internal Revenue Service and state agency reporting requirements
- Maintains the general ledger, including account and subsidiary ledger reconciliations
- Oversees special assessment district administration and debt management
- Provides internal controls over all financial functions
- Prepares monthly and annual financial reports, including the preparation of the Comprehensive Annual Financial Report (CAFR)

Purchasing

- Assists District personnel in acquiring required goods, services, equipment, and supplies from reliable sources following the District’s Procurement Policy

Warehouse

- Receives and inspects goods, equipment, and supplies ordered by District personnel
- Responsible for inventory controls to ensure supplies are available and ready when needed by District personnel
- Provides mail delivery between CVWD offices in Coachella and Palm Desert, records retrieval, inventory, and lab sample delivery



Palm Desert Warehouse

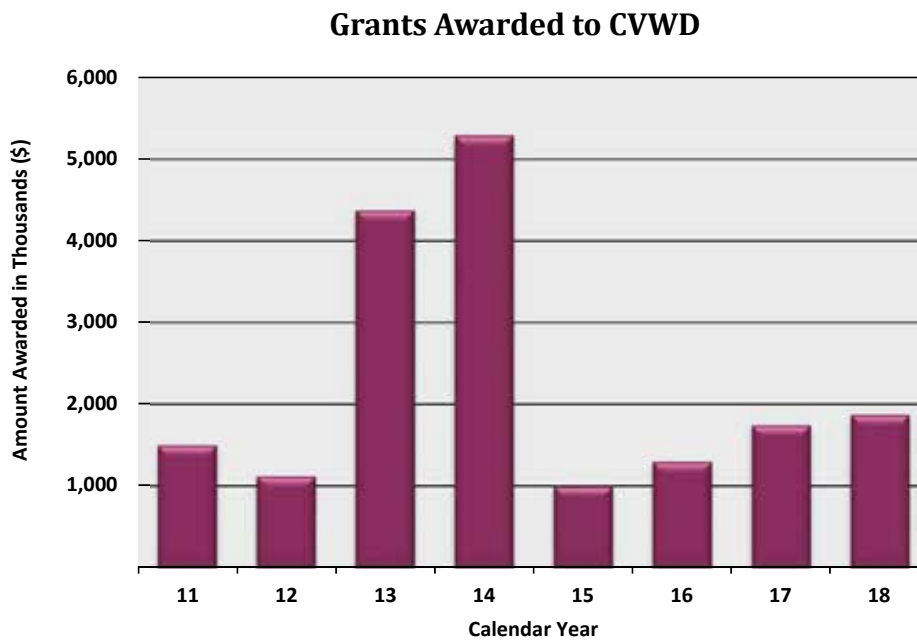
Finance Metrics

Finance Workload Measures

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Administration					
Complete Cost of Service Studies	N/A	No	3 of 5	2 of 2	1 of 1
Produce Distinguished Budget Document within 90 days of Board Adoption	Yes	Yes	No	Yes	Yes
Are financial policies and procedures available	No	No	No	No	Yes
Are financial results and internal controls audited	Yes	Yes	Yes	Yes	Yes
Have control deficiencies and material weaknesses from previous audits been corrected	No	Yes	Yes	Yes	Yes
Maintain a rate stabilization reserve to sustain operations during revenue fluctuations, in addition to 60 or 90 days operating reserves	Yes	Yes	Yes	Yes	Yes
Developer Deposits Cash/Letter of Credit (LOC)/Certificate of Deposit (CD)					
Total Cash Deposits on hand	NA	NA \$	3,621,690 \$	3,702,573 \$	3,987,184
Total CDs/LOCs on hand	NA	NA \$	701,731 \$	701,731 \$	635,727
Total CDs/LOCs released	NA	NA \$	468,213 \$	- \$	66,004
Total CDs/LOCs converted to cash	NA	NA \$	1,810,580 \$	- \$	-
Total Cash deposits released	NA	NA \$	145,660 \$	341,772 \$	67,120
Cash Management					
% of Total Cash Invested	99.06%	99.30%	99.58%	99.64%	99.27%
Average Cash on Hand	\$ 4,429,289	\$ 3,310,228	\$ 1,940,131	\$ 1,795,709	\$ 3,778,728
Average TPIF Interest Rate (%)	0.38%	0.44%	0.55%	0.82%	1.42%
Average Rate of Return on Investments (%)	0.74%	0.84%	1.11%	1.28%	1.66%
Average Investment Portfolio	\$ 469,863,542	\$ 475,340,352	\$ 456,717,379	\$ 499,252,854	\$ 513,288,529
Accounting					
Produce Comprehensive Annual Financial Report by December 31	Yes	Yes	Yes	Yes	Yes
Average Accounts Receivable	\$ 2,245,159	\$ 2,147,611	\$ 1,105,752	\$ 1,521,172	\$ 2,505,211
Payroll	\$ 36,649,551	\$ 39,395,595	\$ 42,330,951	\$ 45,876,640	\$ 47,684,786
Amount Paid Through Accounts Payable	\$ 110,747,295	\$ 124,908,245	\$ 116,455,970	\$ 108,071,463	\$ 147,207,941
Amount Paid Through Wire Transfers	\$ -	\$ 16,991,396	\$ 76,918,263	\$ 105,757,142	\$ 77,977,849
Number of Accounts Payable Checks & E-Payables	8,924	8,118	10,708	7,888	7,295
Number of Purchasing Card Transactions	6,822	8,639	9,637	9,407	10,077
Purchasing					
Amount of Inventory Received	\$ 7,320,417	\$ 6,599,870	\$ 6,202,910	\$ 6,981,473	\$ 7,080,056
Amount of Inventory Issued	\$ 6,827,920	\$ 6,566,926	\$ 6,370,156	\$ 6,830,341	\$ 6,973,005
Incoming Warehouse Transactions	27,586	25,765	21,449	22,663	21,057
Outgoing Warehouse Transactions	96,040	94,467	97,991	99,565	100,701
Number of Competitive Bids and Quotes	254	250	367	413	368
Number of Purchase Orders Issued	3,530	3,600	3,971	3,938	3,795



The following graph depicts grant awards that the District has received over the past eight years.



CVWD's Purchasing Division follows the District's Procurement Policy

Fiscal 2017-18 Accomplishments

Strategic Plan

- Completed financial and internal control policies

Administration

- Received the Government Finance Officers Association (GFOA) Distinguished Budget Award for the fiscal year beginning July 1, 2017
- Completed training on the cost of service models
- Completed actuarial valuation for Other Post-Employment Benefits (OPEB) for fiscal 2017
- Completed budget book within 90 days of Board adoption of the Fiscal 2018 Operating and Capital Budget
- Reviewed and updated the District's Reserve Policy with the Board of Directors
- Reviewed options to fund portion of CalPERS unfunded liability
- Received Board approval to prepay the fiscal 2019 CalPERS employer UAL expense at an estimated cost savings of \$322,000
- Provided timely Quarterly Financial Reports to the Board

Accounting

- Obtained an Unqualified "Clean" opinion for the fiscal 2017 audit
- Received GFOA Certificate of Achievement for Excellence in Financial Reporting for the Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2017

Purchasing

- Updated Procurement Policy and obtained Board approval
- Hosted several purchasing forums and training classes with other local agencies
- Created a procedures manual, and held training classes which included: how to create requisitions, bidding process and thresholds, and other pertinent topics

Fiscal 2018-19 Goals

Strategic Plan

- Establish grants funding plan for the capital improvement program
- Reduce the CalPERS unfunded liability

Administration

- Conduct miscellaneous fee analysis and update the Ordinance
- Complete a Cost of Service Study for the East Whitewater Replenishment Fund
- Update Grants Management policy
- Update Capital Asset policy
- Create desk reference for payroll budget
- Create desk reference for Grants Management
- Prepare mid-year and third quarter Capital Improvement budget vs. actual analysis for Board
- Receive Government Finance Officers Association (GFOA) Distinguished Budget Award for fiscal 2019
- Complete budget book within 90 days of Board adoption of the Fiscal 2018 Operating and Capital Budget
- Complete Cost of Service Study for East Whitewater RAC

Accounting

- Complete Internal Control Risk Assessment
- Obtain an Unqualified "Clean" opinion for the fiscal 2018 audit
- Receive GFOA Certificate of Achievement for Excellence in Financial Reporting for the Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2018
- Implement Phase II of ExecuTime - Job Costing

Purchasing

- Work with counsel to update all bidding templates to include latest California codes and law requirements
- Work with Amazon Prime to set up business account for Districtwide purchasing using P-Cards
- Analyze all miscellaneous warehouses inventory for obsolete items

Warehouse

- Complete Internal Control Risk Assessment
- Analyze warehouse S1 and S4 inventory for obsolete items
- Work with appropriate department heads for liquidation of obsolete inventory and to determine the best method of disposal

Department Financial Trend - Finance

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	3,253,000	3,457,000	3,355,000	3,742,000	285,000	8.2
Outside Labor	28,000	15,000	17,000	25,000	10,000	66.7
Professional Development	22,000	33,000	46,000	34,000	1,000	3.0
Professional Services	416,000	815,000	677,000	1,010,000	195,000	23.9
Utilities	1,000	1,000	2,000	1,000	-	-
Materials & Supplies	27,000	29,000	69,000	35,000	6,000	20.7
Motorpool	72,000	76,000	71,000	76,000	-	-
Contract Services	88,000	118,000	74,000	118,000	-	-
Safety	1,000	2,000	1,000	2,000	-	-
Miscellaneous Expense	277,000	260,000	305,000	327,000	67,000	25.8
Total	4,185,000	4,806,000	4,617,000	5,370,000	564,000	11.7%
Expenses by Division						
Administration	1,496,000	1,905,000	1,778,000	2,110,000	205,000	10.8
Financial Accounting	1,069,000	1,218,000	1,111,000	1,394,000	176,000	14.4
Purchasing	588,000	627,000	627,000	681,000	54,000	8.6
Warehouse	771,000	816,000	811,000	875,000	59,000	7.2
Nondepartmental	261,000	240,000	290,000	310,000	70,000	29.2
Total	4,185,000	4,806,000	4,617,000	5,370,000	564,000	11.7%
Expenses by Fund						
Domestic Water	1,383,000	1,640,000	1,545,000	1,846,000	206,000	12.6
Canal Water	716,000	768,000	715,000	845,000	77,000	10.0
Sanitation	935,000	1,136,000	1,021,000	1,230,000	94,000	8.3
Stormwater	387,000	452,000	565,000	485,000	33,000	7.3
Nonpotable Water	104,000	112,000	89,000	107,000	(5,000)	(4.5)
West Whitewater Replenishment	253,000	268,000	278,000	329,000	61,000	22.8
Mission Creek Replenishment	35,000	41,000	30,000	30,000	(11,000)	(26.8)
East Whitewater Replenishment	208,000	191,000	201,000	289,000	98,000	51.3
Motorpool	164,000	198,000	173,000	209,000	11,000	5.6
Total	4,185,000	4,806,000	4,617,000	5,370,000	564,000	11.7%

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	3005	1003	Overtime	1,000	-	-	1,000	-
803	3005	2001	Dues & Memberships	-	500	-	500	-
803	3005	2003	Conferences & Seminars	-	3,000	-	3,000	-
803	3005	2599	Professional Services-Bond Rating	-	100,000	-	100,000	100,000
803	3005	2599	Professional Services-PFM Advisory Service Increase	-	118,840	-	118,840	-
535, 552 580	3005	2599	Professional Services-Cost of Service Study Developer Fees	-	100,000	-	100,000	100,000
803	3005	Misc.	Offsets	-	(1,518)	-	(1,518)	-
803	3018	1003	Overtime	12,000	-	-	12,000	12,000
803	3018	1801	Temporary Agency	-	25,000	-	25,000	25,000
803	3018	2599	Professional Services-Internal Controls Assessment	-	80,000	-	80,000	80,000
803	3018	2599	Professional Services-Increased Cost of Audit	-	2,000	-	2,000	-
803	3021	4299	Other Materials & Supplies	-	3,000	-	3,000	3,000
803	3022	2599	Professional Services-Internal Controls Assessment	-	20,000	-	20,000	20,000
803	3022	4803	Offsets	-	(107)	-	(107)	-
Finance Total				13,000	450,715	-	463,715	340,000

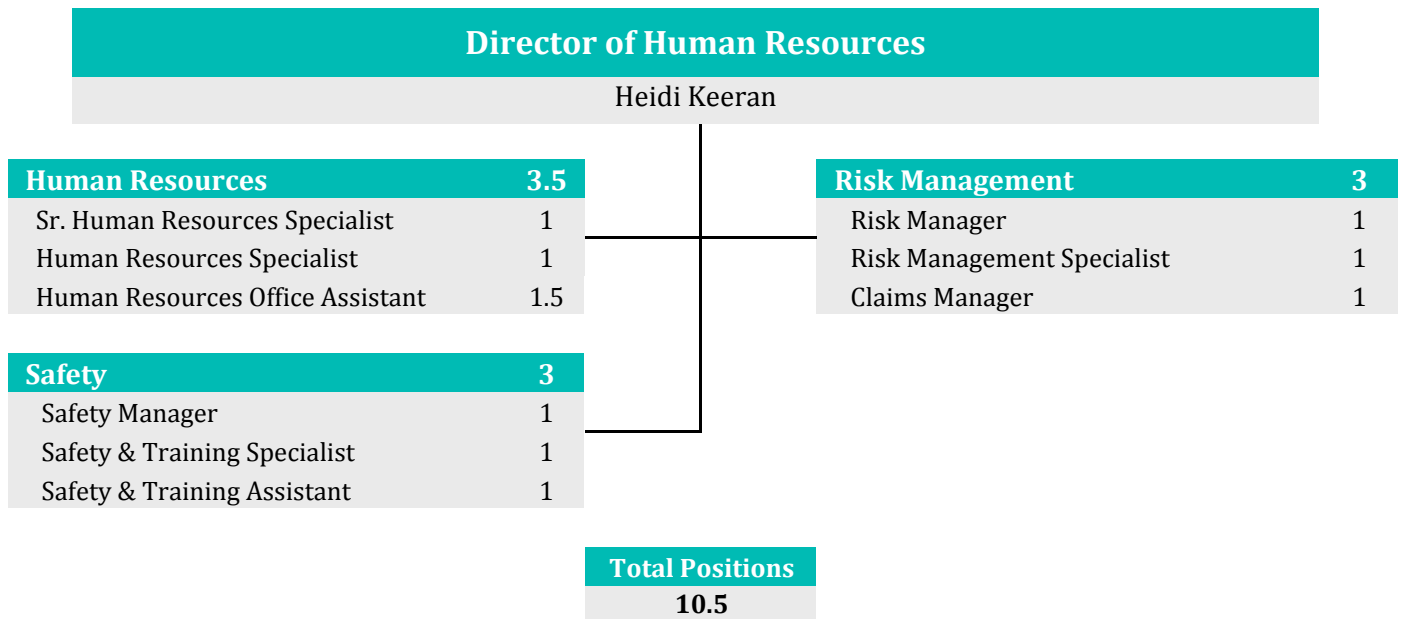
Human Resources



TERMS OF EMPLOYMENT

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Department Description

Human Resources provides administrative and operational human resources support to District employees, retirees, directors, and all eligible dependents by providing services in five core areas: human resources, benefits, risk management, safety, and claims.

Mission

The Human Resources department is committed to providing effective customer service to all departments and employees of CVWD. We will actively attract, retain, and develop our workforce to provide quality public service to residents of the Coachella Valley. We believe that we have a moral obligation to send all employees home healthy and injury free at the end of every day. We will promote a work environment that encourages professionalism, pride, and respect.

Core Values

- Integrity – We will interact among ourselves and with employees honestly and ethically, thereby building relationships based on trust. We will always respect the confidentiality entrusted to us.
- Respect – We will exercise patience and sensitivity in dealing with the concerns and problems of others. We will be open-minded and fair in our interactions with employees and with one another.
- Communication – We will actively seek to understand the perspectives of others by listening with an open mind and communicating honestly and with appropriate discretion.
- Collaboration and Teamwork – We will encourage diversity of ideas and experiences, and strive to be a trusted strategic partner.
- Innovation – We are open to change and are committed to continuous improvement while meeting the needs of the District and workforce. We believe those we serve deserve an excellent service, a safe, productive, and healthy work environment.

Division Descriptions

Human Resources provide a variety of services related to employees, retirees, Board of Directors, and eligible dependents, with particular focus on the following functions and activities:

Human Resources

- Develops District workforce to empower employees to provide quality services to their customers
- Streamlines processes related to facilitating and managing employees, in compliance with federal and state laws and current Memorandum of Understanding (MOU) guidelines through:
 - » Recruitment
 - » Development and training
 - » Competitive rewards and compensation packages
 - » Negotiating MOUs with District bargaining units
- Administers the mandatory and voluntary health and welfare benefits for employees, retirees, Board of Directors, and their eligible dependents including:
 - » Medical
 - » Dental
 - » Vision
 - » Employee Assistance Program (EAP)
 - » Supplemental and group term life insurance
 - » Short and long-term disability
 - » Consolidated Omnibus Budget Reconciliation Act (COBRA), medical and dependent care
 - » Flexible spending accounts (FSA)
 - » Wellness program
 - » 401(a) and 457 deferred compensation plans

Risk Management

- Analyzes and evaluates work involving the District's risk management and insurance programs, including, but not limited to:
 - » Securing insurance to limit the District's exposure to financial risk
 - » Administering the District's self-insured workers' compensation program
 - » Administering the District's insured and self-insured property and casualty program including self-administered claims
 - » Ensuring contractor insurance compliance
- Serves as consultant to management in a wide range of risk, insurance, and claims matters
- Identifies procedures to avoid or minimize negative fiscal impact to the District

Claims

- Investigates, analyzes, evaluates, and resolves internal and external claims involving potential or present damages to person and/or property
- Interprets state and federal law to ensure that claims are handled in accordance with the applicable law
- Protects the Coachella Valley Water District from undue liability and ensures that claims are resolved efficiently and justly

Safety

- Plans, implements, monitors, and evaluates the District's Injury and Illness Prevention Program
- Develops proactive training programs that actively and effectively communicate to employees the District's safety policies and standards, as they pertain to Occupational Safety and Health Administration (OSHA) compliance
- Works in tandem with Risk Management to investigate and report incidents and claims according to federal and state statutes and codes

Human Resources Metrics

Human Resources Workload Measures and EUMs

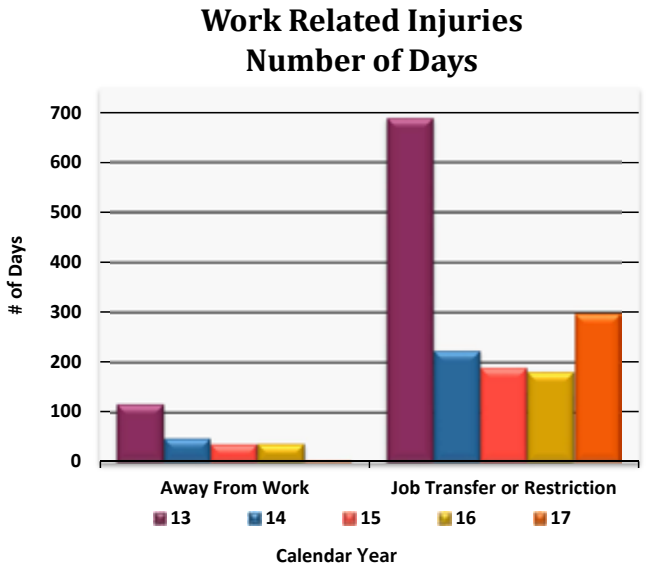
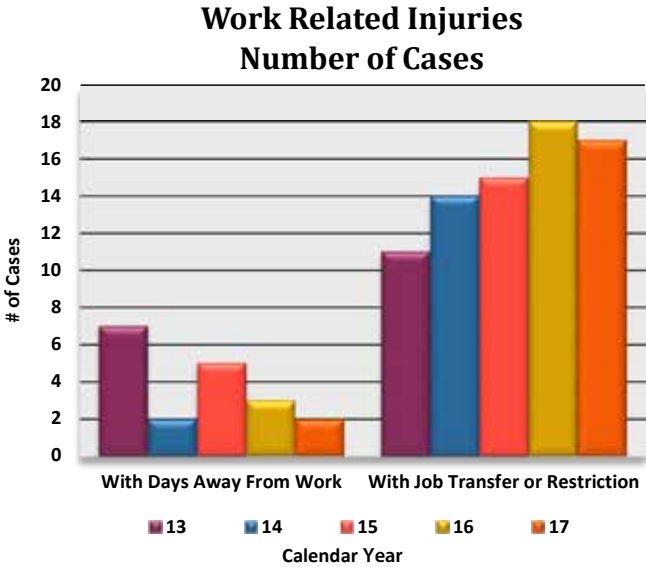
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Human Resources					
Critical-Skill Positions Filled Internally vs. Outside Recruitment	71%	50%	55%	77%	50%
Average Days Vacant Due to Staff Departures	65.0	61.5	63.5	49.5	59
Voluntary Departures*	3.1%	3.3%	4.5%	5.1%	6.8%
Retirement Departures	1.2%	1.5%	3.3%	3.6%	4.4%
Turnover Rate	4.5%	3.7%	5.0%	6.3%	7.6%
Experience in Years Lost to Retirement	N/A	N/A	431	548	498
Experience in Years Lost to Turnover*	200	142	462	591	598
Certifications Achieved or Maintained	98.5%	98.5%	100.0%	100.0%	100.0%
Risk Management					
Supplemental Workers' Compensation Lost Time Benefit	\$59,850	\$29,735	\$16,193	\$10,320	\$5,194
Claims					
Total Number General Liability & Auto Insurance Claims per 200,000 Employee Hours Worked	1.8	1.31	2.08	1.82	1.37
Total Amount of General Liability & Auto Insurance Claims per 200,000 Employee Hours Worked	\$1,938	\$888	\$1,262	\$255,326	\$146,384
Safety					
Number of days away from work due to work-related injury (Calendar Year)	48	36	37	4	N/A
Number of days with restrictions or job transfer due to work-related injury (Calendar Year)	223	189	181	297	N/A

* Includes retirements and resignations



CVWD's annual Wellness Fair

The following graphs reflect an overall reduction in the number of cases with days away from work, but an increase in the number of cases with job transfer or restriction. Overall, the number of days away from work associated with work-related injuries was relatively flat the past four years. However, there was a slight increase in the number of days with job transfer or restriction in 2017.



Fiscal 2017-18 Accomplishments

Human Resources

- Implemented a new online wellness program

Risk Management

- Completed biennial training for management on workers' compensation laws and processes to reduce District liability
- Provided training for management on insurance for vendor purchase orders and agreements
- Issued a request for proposal (RFP) for insurance broker services to market and secure property and casualty insurance

Claims

- Prepared and presented incident reporting procedure training to supervisors
- Completed the new Incident Report pilot program by September 30 to introduce new Incident Report
- Rolled out new Incident Report Districtwide by December 2017
- Trained staff on how to execute new Incident Report from October - December 2017 (14 separate training sessions)
- Investigated and resolved over 350 incidents involving District facilities, bodily injury, and/or property damage
- Collected more than \$140,000 in claims related receivables

Safety

- Trained emergency operation center (EOC) responders in Incident Command System 400 module (ICS400)
- Rolled out CVWD's job safety analysis program to all affected personnel
- Recertified approximately 125 employees in cardiopulmonary resuscitation (CPR), first aid, automated external defibrillators (AED), and blood borne pathogens
- Prepared and rolled out a hearing conservation program for affected personnel

Fiscal 2018-19 Goals

Strategic Plan

- Develop and implement Comprehensive Supervisor Safety Management Training Program
- Develop a knowledge transfer program for succession planning

Human Resources

- Create and launch a CVWD Employment website
- Conduct the second Employee Engagement Survey
- Successfully conduct successor MOUs for ACVWDM and ASSET
- Conduct the Leadership Development Program
- Increase engagement and participation in Wellness Program

Risk Management

- Complete a Request for Proposal (RFP) for insurance compliance management services
- Create and implement an insurance establishment request form for construction projects to define the project and associated risks
- Complete a Request for Proposal (RFP) to conduct a Workers' Compensation third-party administrator audit to insure compliance with California State Law and insure industry best practices are followed

Claims

- Reduce total amount of long-term, outstanding, claims related collectibles
- Implement vehicle damage reporting and repair protocol

Safety

- Update the District's Lock Out Tagout Program and provide training to affected personnel
- Identify and implement an incentive program to promote safe workplace behavior – reward individuals, teams, departments or the company as a whole for compliance with safety standards
- Identify and implement a safety training checklist before an employee is cleared to work certain tasks and/or specialty equipment
- Recertify approximately 100 employees in cardiopulmonary resuscitation (CPR), first aid, automated external defibrillators (AED), and blood borne pathogens
- Perform facility Safety Audits every two months – include hazards identified, housekeeping, walking surfaces, first aid kits, fire extinguishers, emergency exits, etc.

Department Financial Trend - Human Resources

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	1,322,000	1,419,000	1,422,000	1,568,000	149,000	10.5
Professional Development	114,000	130,000	179,000	186,000	56,000	43.1
Professional Services	885,000	1,381,000	737,000	1,501,000	120,000	8.7
Personnel Cost	1,977,000	2,168,000	2,011,000	2,456,000	288,000	13.3
Insurance Cost	850,000	1,070,000	878,000	979,000	(91,000)	(8.5)
Self Insurance Cost	337,000	900,000	319,000	700,000	(200,000)	(22.2)
Collection Cost	1,000	1,000	1,000	1,000	-	-
Utilities	5,000	6,000	2,000	6,000	-	-
Materials & Supplies	144,000	151,000	121,000	179,000	28,000	18.5
Motorpool	21,000	24,000	23,000	23,000	(1,000)	(4.2)
Contract Services	181,000	93,000	60,000	121,000	28,000	30.1
Safety	60,000	81,000	52,000	126,000	45,000	55.6
Miscellaneous Expense	8,000	8,000	6,000	8,000	-	-
Total	5,905,000	7,432,000	5,811,000	7,854,000*	422,000	5.7%
Expenses by Division						
Administration	3,005,000	3,266,000	3,199,000	3,715,000	449,000	13.7
Claims	1,042,000	2,123,000	820,000	2,028,000	(95,000)	(4.5)
Risk Management	1,017,000	1,262,000	1,060,000	1,219,000	(43,000)	(3.4)
Safety	841,000	781,000	732,000	892,000	111,000	14.2
Total	5,905,000	7,432,000	5,811,000	7,854,000*	422,000	5.7%
Expenses by Fund						
Domestic Water	2,818,000	3,719,000	2,901,000	3,761,000	42,000	1.1
Canal Water	797,000	886,000	622,000	759,000	(127,000)	(14.3)
Sanitation	1,335,000	1,569,000	1,470,000	2,342,000	773,000	49.3
Stormwater	650,000	749,000	360,000	438,000	(311,000)	(41.5)
Nonpotable Water	49,000	71,000	59,000	79,000	8,000	11.3
West Whitewater Replenishment	100,000	171,000	145,000	179,000	8,000	4.7
Mission Creek	9,000	-	52,000	1,000	1,000	-
East Whitewater Replenishment	100,000	123,000	109,000	133,000	10,000	8.1
Motorpool	47,000	144,000	93,000	162,000	18,000	12.5
Total	5,905,000	7,432,000	5,811,000	7,854,000*	422,000	5.7%

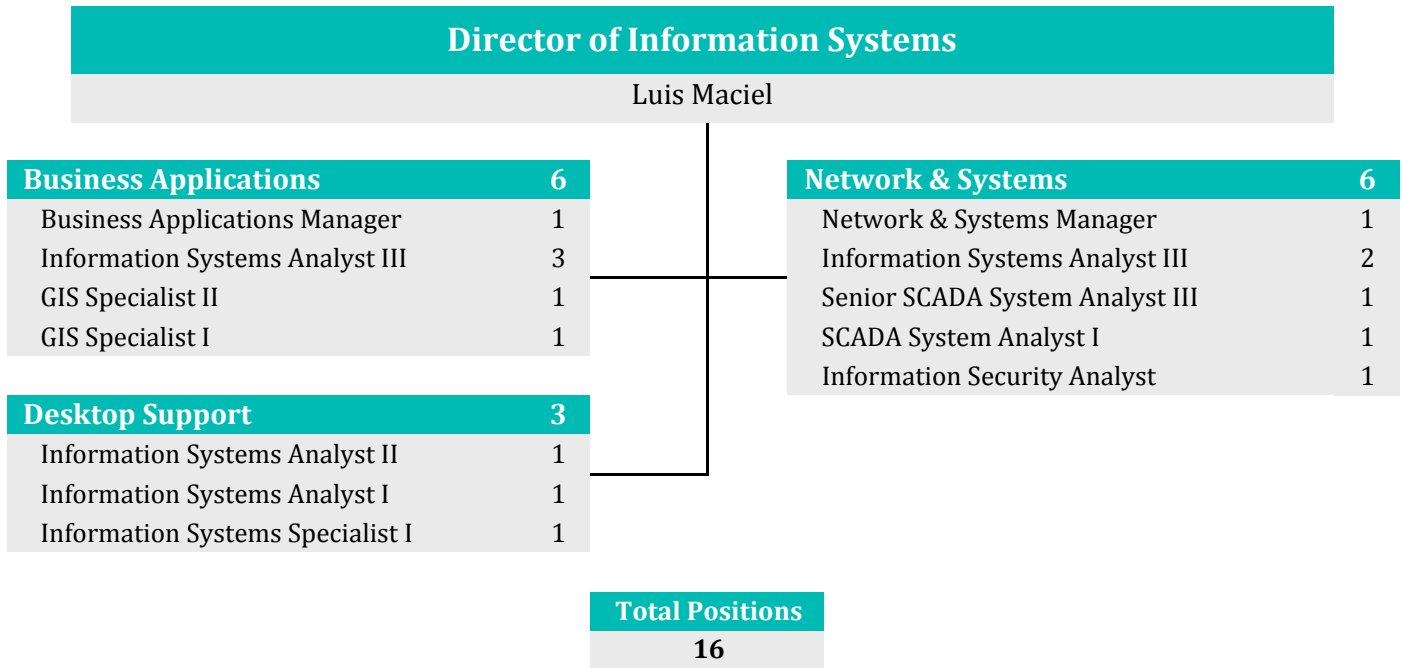
* Excludes Workers' Compensation and Dental Self-Insurance in the amount of \$1,346,000 and \$439,000 respectively

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	2205	2003	Conferences & Seminars	-	500	-	500	-
803	2205	2004	Travel Per Diem	-	1,000	-	1,000	-
803	2205	2005	HR Training	-	1,500	-	1,500	-
803	2205	2008	Education Reimbursement	-	45,000	-	45,000	-
803	2205	2501	Legal	-	25,000	-	25,000	-
803	2205	3004	Retiree Benefits	-	154,000	-	154,000	-
803	2205	3022	Retiree PPO	-	110,064	-	110,064	-
803	2205	3026	Guardian Claims Cobra	-	12,900	-	12,900	-
803	2205	3030	In House Training	-	25,000	-	25,000	-
803	2205	4297	Small Tools & Equipment	-	1,000	-	1,000	-
803	2205	1003	Overtime	2,500	-	-	2,500	-
803	2210	2002	Subscriptions	-	2,600	-	2,600	-
803	2210	2005	Safety Training	-	5,000	-	5,000	-
803	2210	4299	Exit Signs Tritium 20 year	-	19,000	-	19,000	19,000
535	2210	4299	Exit Signs Tritium 20 year	-	19,000	-	19,000	19,000
803	2210	4803	Motorpool Insurance	-	(160)	-	(160)	-
803	2210	6002	Training-EOC	-	15,000	-	15,000	-
803	2210	6002	Training-Smith Systems Train the Trainer	-	30,000	-	30,000	30,000
535	2416	2501	Legal	-	200,000	-	200,000	200,000
580	2416	2501	Legal	-	300,000	-	300,000	300,000
535	2416	2590	Non 1099 - Reimbursed Costs	-	70,000	-	70,000	70,000
580	2416	2590	Non 1099 - Reimbursed Costs	-	75,000	-	75,000	75,000
580	2416	3301	Third Party Liability	-	250,000	-	250,000	250,000
535	2416	3301	Third Party Liability	-	250,000	-	250,000	250,000
803	2416	4803	Motorpool Insurance	-	(53)	-	(53)	-
803	2417	3201	Excess Liability-Insurance	-	(11,421)	-	(11,421)	-
803	2417	3202	Client Services Costs-Insurance Broker Fee	-	(59,000)	-	(59,000)	-
803	2417	3203	Crime Coverage-Insurance	-	(1,011)	-	(1,011)	-
803	2417	3207	Underground Storage Tanks-Insurance	-	668	-	668	-
803	2417	3208	Property Flood Quake Boiler	-	(12,166)	-	(12,166)	-
803	2417	3210	Public Office. Liability-Insurance	-	(7,464)	-	(7,464)	-
803	2417	3211	Employee Benefit Liability	-	(449)	-	(449)	-
803	2417	3216	Security and Privacy-Insurance-Cyber Liability	-	(7,898)	-	(7,898)	-
602	2417	3306	Primary Workers' Comp.	-	381,658	-	381,658	381,658
803	2417	5599	Contract Services-RFP for current services, Oct. 2018	-	28,050	-	28,050	-
803	2417	Various	Offsets	-	(400)	-	(400)	-
Human Resources Total				2,500	1,921,918	-	1,924,418	1,594,658

Information Systems





Department Description

Information Systems (IS) provides information technologies to enable efficiency, productivity, and innovation to the various District departments.

The main objective of this department is to meet the technological challenges of the District. Information Systems provides strategic technology direction, manages information technology, supports cross-departmental priorities, and implements operational policies and standards.

Mission

The mission of Information Systems is to uphold the values of CVWD by fostering innovation through technologies and processes that improve efficiency and productivity.

Core Values

- Dedication – Dedicated to our customers and stakeholders to deliver the best possible services
- Integrity – We do everything with the objective of providing high-quality water and protecting our resources.
- Fiscal responsibility – We manage funds efficiently to continue to provide affordable water.

Division Descriptions

Information Systems (IS) is responsible for the design, development, analysis, implementation, integration, and maintenance of new and existing applications, such as the Finance and Supervisory Control and Data Acquisition (SCADA) systems.

Other critical responsibilities of IS include the development of specialized computer applications, workstation customization, installation and configuration of new and existing IS related equipment, server and network management, network security, voice networks, e-mail, internet access, audio/visual equipment, and end-user support, with particular focus on the following functions and activities:

Business Applications

- Provides an integrated and complete set of services that include: analysis, design, development, testing, implementation, and maintenance
- Works closely with project managers and department liaisons to develop specifications and make recommendations on the use of new and emerging technologies
- Determines the appropriate architecture and other technical solutions to reduce non-value-added work
- Determines application data access requirements, transaction rates, volume analysis, and other pertinent data required to develop and maintain integrated databases

Development

- Develops and implements data analyses, data collection systems and other strategies that optimize statistical efficiency and quality
- Develops and implements databases, data collection systems, data analytics and other strategies that optimize statistical efficiency and quality
- Responsible for the following:
 - » Produce clean, efficient code based on specifications
 - » Integrate software components and third-party programs
 - » Verify and deploy programs and systems
 - » Troubleshoot, debug and upgrade existing software
 - » Gather and evaluate user feedback
 - » Recommend and execute improvements
 - » Create technical documentation for reference and reporting

Geographic Information Systems (GIS)

- Develops a comprehensive GIS that provide valuable tools including:
 - » More efficient and effective access
 - » Linking
 - » Analyses
 - » Maintenance of information for and about the District and its ratepayers



SCADA Project Open House

Desktop Support

- Provides maintenance and support for every aspect of electronic equipment such as:
 - » Computer hardware
 - » Software
 - » Networking
 - » Mobile technologies
 - » Telephony
- Works directly with end-users to provide technical support and training
- Develops methods, practices, and procedures in an effective and efficient manner to ensure maximum access to technology services and resources

Network & Systems

- Implements and maintains network infrastructure throughout the District
- Plans, designs, and maintains servers and data
- Administers day-to-day operations of networks and servers
- Implements Local Area Network (LAN) and Wide Area Network (WAN) maintenance and server administration procedures
- Secures all systems and network related equipment such as firewalls, switches, and routers
- Evaluates security trends, evolving threats, risks, vulnerabilities, and implements solutions to mitigate risk as necessary
- Ensures that the disaster recovery, risk management, and access controls needs of the facility are addressed. Coordinates with business continuity/continuity of operations plans and teams
- Responsible for improvements to and upgrades of:
 - » Email system
 - » Virtual infrastructure
 - » File systems
 - » Unified messaging
 - » Mobility systems
 - » Domain controllers
 - » Databases
 - » Security systems
 - » Network infrastructure

Supervisory Control and Data Acquisition

- Oversees the operation, support, maintenance, analysis, databases, graphic display, and external system interface requirements, adhering to SCADA technology standards
- Evaluates the effectiveness of systems
- Develops specifications for new technologies or prototype systems to improve production and/or workflow

Information Systems Metrics

Information Systems Workload Measures and EUMs

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Information Systems - Infrastructure and Systems					
Critical Systems Availability - Goal 99% or more	99%	99%	99%	99%	99%
Network Availability - Goal 99% or more	1.0	0.99	0.99	0.99	0.99
Unscheduled Infrastructure Downtime Across All Applications - Goal 0.1% or less	4.6%	4.3%	3.8%	3.8%	3.0%
Quarterly Verification Backups - Goal 99%	98%	99%	99%	99%	99%
Information Systems - Service					
Help Desk Tickets	2,230	2,479	2,976	5,299	5,630
Tickets resolved according to Service Level Agreement (SLA) - Goal 90% or more	85%	86%	90%	88%	90%
Tickets Completed - Goal 90% or more	85%	87%	90%	90%	90%
Average First Response Time to Ticket - Goal less than 24 hours	16	12	12	8	10
Average Time to Ticket Resolution - Goal less than 3 days	2.5	2.8	2.8	2.0	2.5
Information Systems - Employee Development					
Training per Team Member - Goal more than 6 hours per month	4	6	6	6	6
Information Systems - System Update					
Quarterly Systems Updates - Goal 90%	86%	86%	88%	88%	88%
Information Systems - Projects					
Projects Completed - Goal 90% or more	87%	88%	88%	90%	87%



CVWD donated used computers and equipment to the Boys & Girls Club of Coachella

Fiscal 2017-18 Accomplishments

Strategic Plan

- Implemented and successfully adopted a Customer Relationship Management (CRM) System to improve Customer Service

Business Applications

- Audited and implemented a plan to ensure proper maintenance and knowledge transfer of Legacy Applications
- Deployed a self-service analytics solution to empower CVWD staff

Development

- Upgraded FileNet to support efficient Records Management and Retention
- Implemented SharePoint enhancements to comply with CVWD's Electronic Records Management Policy

GIS

- Completed Phase II development of a web-based GIS Application and a field data collection workflow using Collector for ArcGIS for well monitoring/depth to water measurements
- Updated the GIS Strategic Plan to reflect current and future District needs
- Completed GIS integration with CMMS
- Integrated the Fleet Management System with GIS
- Developed and implemented a GIS Drone Action Plan to support ESRI's Drone2Map solution

Desktop Support

- Upgraded the End-Point Management system to support rapid deployment of PC images, applications and systems updates
- Replaced desktops, laptops, and printers as per end-of-life cycle hardware replacement program
- Implemented a two-step user authentication to enhance security for remote connections
- Developed a plan to improve cybersecurity awareness
- Adopted a Service-Level-Agreement to improve IS-related services

Network & Systems

- Upgraded network infrastructure to support the new Computerized Maintenance Management System (CMMS)
- Built an intermediate distribution frame to support the media equipment upgrade of the Forbes Auditorium
- Completed a feasibility assessment of the wide area network (WAN) link between Coachella and Palm Desert to provide additional redundancy
- Successfully implemented a new "endpoint security" solution to provide proactive detection, analysis, inspections, and immediate containment of cyber-security threats
- Implemented a next-generation network security system to simplify access across wired, wireless, and virtual private network (VPN) connections

SCADA

- Implemented a new Human Machine Interface (HMI) Package (SCADA system) as recommended in the SCADA Master Plan
- Acquired a solution to centralize and streamline software management of autonomous SCADA systems (remote sites)
- Adopted a plan to implement a new SCADA driver to support SCADA integration with legacy hardware
- Completed design of a new SCADA control room to support the new SCADA system

Fiscal 2018-19 Goals

Strategic Plan

- Develop a plan to address needs and replacement of canal water ordering and billing process
- Evaluate and recommend information management systems for effective wastewater operator monitoring and decision making

Business Applications

- Upgrade scanning solution to improve process automation
- Streamline Extract, Transform, and Load (ETL) Processes to eliminate redundant technologies

Development

- Implement Phase II of the Information Governance strategy
- Implement a pilot program to test new Enterprise Resource Planning (ERP) interface

GIS

- Convert and integrate legacy plats to GIS
- Develop and Implement Strategy to Migrate to ArcGIS Online
- Deploy ArcGIS Pro and implement training for successful adoption
- Develop a GIS field application to support sanitation field inspections

Desktop Support

- Implement and adopt a service catalog to improve IS service management
- Deploy a Visitors Management System
- Replace desktops, laptops, and printers as per end-of-life cycle hardware replacement program
- Develop a printer management strategy to improve maintenance and support

Network & Systems

- Implement Phase II of the Wide Area Network (WAN) wireless upgrade
- Upgrade the Storage Area Network (SANs) for both Palm Desert and Coachella
- Design and implement technology infrastructure to support the new EOC and Technology Education Center
- Design and Implement network infrastructure to support new data center for Critical Facilities Building
- Hire a new Cyber Security Analyst
- Update Cyber Security strategy

SCADA

- Acquire and implement a virtual infrastructure to support new SCADA system
- Design and adopt new SCADA interface
- Adopt and implement SCADA Pilot Factory Testing
- Implement SCADA driver to support legacy equipment
- Upgrade Canal PLCs to support new SCADA system

Department Financial Trend - Information Systems

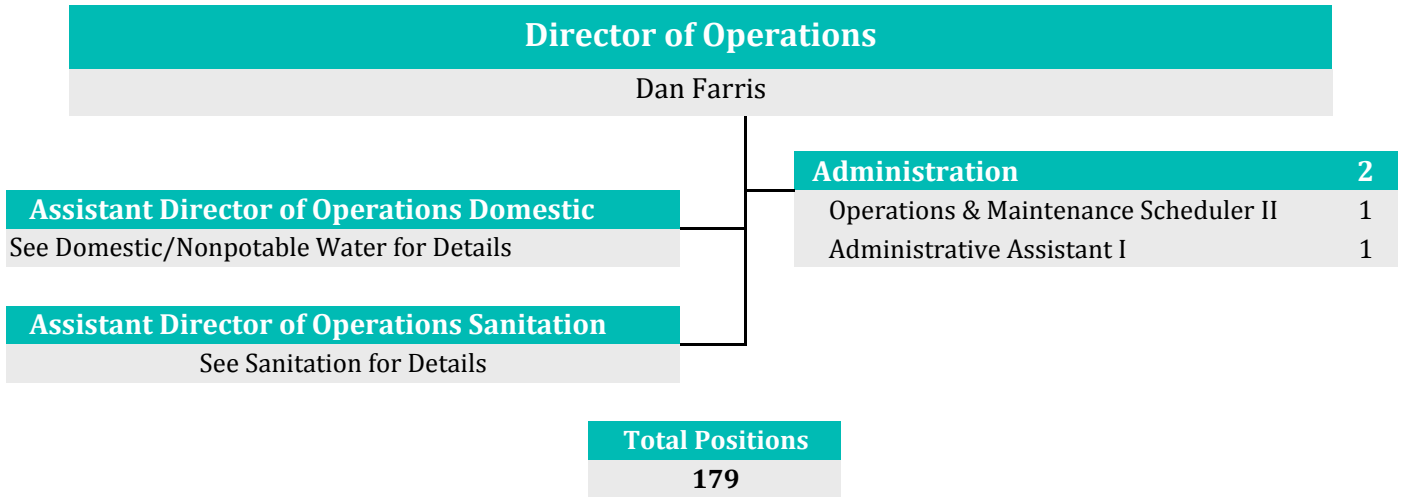
	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	2,356,000	2,453,000	2,402,000	2,691,000	238,000	9.7
Professional Development	34,000	39,000	53,000	39,000	-	-
Professional Services	49,000	55,000	55,000	100,000	45,000	81.8
Personnel Cost	36,000	15,000	12,000	15,000	-	-
Utilities	37,000	37,000	42,000	37,000	-	-
Materials & Supplies	535,000	572,000	527,000	457,000	(115,000)	(20.1)
Motorpool	4,000	4,000	4,000	4,000	-	-
Contract Services	1,910,000	1,820,000	1,730,000	2,180,000	360,000	19.8
Miscellaneous Expense	(1,000)	-	-	-	-	-
Total	4,960,000	4,995,000	4,825,000	5,523,000	528,000	10.6%
Expenses by Division						
Information Services	4,960,000	4,995,000	4,825,000	5,523,000	528,000	10.6
Total	4,960,000	4,995,000	4,825,000	5,523,000	528,000	10.6%
Expenses by Fund						
Domestic Water	1,965,000	1,975,000	1,909,000	2,164,000	189,000	9.6
Canal Water	768,000	777,000	752,000	868,000	91,000	11.7
Sanitation	1,240,000	1,248,000	1,207,000	1,381,000	133,000	10.7
Stormwater	251,000	255,000	247,000	276,000	21,000	8.2
Nonpotable Water	99,000	100,000	93,000	114,000	14,000	14.0
West Whitewater Replenishment	199,000	200,000	193,000	228,000	28,000	14.0
Mission Creek Replenishment	46,000	45,000	43,000	54,000	9,000	20.0
East Whitewater Replenishment	247,000	249,000	240,000	276,000	27,000	10.8
Motorpool	145,000	146,000	141,000	162,000	16,000	11.0
Total	4,960,000	4,995,000	4,825,000	5,523,000	528,000	10.6%

FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	FTEs	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	2415	1002	Information Security Analyst	1.0	121,272	-	-	121,272	-
			Personnel Total	1.0	121,272	-	-	121,272	-
803	2415	2599	Professional Services		-	45,000	-	45,000	-
803	2415	4205	Computer Hardware		-	(155,000)	-	(155,000)	-
803	2415	4206	Computer Software		-	95,000	-	95,000	95,000
803	2415	5503	Software Support Agreements		-	100,000	-	100,000	-
803	2415	5599	Contract Services		-	370,000	-	370,000	-
803	2415	4803	Offsets		-	(53)	-	(53)	-
			Other Total	-	-	454,947	-	454,947	95,000
			Information Systems Combined Total	1.0	121,272	454,947	-	576,219	95,000

Operations





Department Description

The Operations Department is responsible for efficiently operating and maintaining the District’s domestic water, wastewater, and nonpotable facilities to meet the needs of the Coachella Valley, while protecting public health and providing the highest levels of customer service; all accomplished at a reasonable cost.

Division Description

The Operations Department management team provides organizational oversight to facilitate interdivision relationships and efficiencies to ensure safe, reliable, and economical services to our customers. The Operations Department provides the following services: potable and nonpotable water systems operations, construction maintenance, sewer collection and treatment operations.

Department Financial Trend - Operations

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	18,223,000	21,221,000	20,515,000	22,740,000	1,519,000	7.2
Outside Labor	7,000	-	16,000	-	-	-
Professional Development	82,000	103,000	93,000	101,000	(2,000)	(1.9)
Utilities	12,346,000	12,437,000	13,303,000	13,419,000	982,000	7.9
Materials & Supplies	5,521,000	6,637,000	6,236,000	6,858,000	221,000	3.3
Motorpool	2,203,000	2,530,000	2,451,000	2,554,000	24,000	0.9
Contract Services	2,732,000	2,743,000	2,251,000	3,656,000	913,000	33.3
Safety	35,000	43,000	34,000	44,000	1,000	2.3
Purchased Water	11,384,000	13,110,000	13,912,000	15,353,000	2,243,000	17.1
Miscellaneous Expense	626,000	784,000	597,000	737,000	(47,000)	(6.0)
Capital Outlay	398,000	857,000	478,000	424,000	(433,000)	(50.5)
Total	53,557,000	60,465,000	59,886,000	65,886,000	5,421,000	9.0%

Continued on the following page



Department Financial Trend - Operations

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Division						
Administration	1,202,000	1,243,000	1,232,000	1,341,000	98,000	7.9
Nonpotable Water - Administration	1,375,000	1,919,000	2,117,000	177,000	(1,742,000)	(90.8)
Nonpotable Water - Operations		727,000	618,000	4,009,000	3,282,000	451.4
Domestic Production	19,327,000	20,657,000	21,758,000	21,879,000	1,222,000	5.9
<i>Domestic Water</i>						
Service Workers	1,945,000	2,033,000	1,919,000	2,036,000	3,000	0.1
Leak Repair	920,000	987,000	1,105,000	1,142,000	155,000	15.7
Leak Construction	748,000	975,000	867,000	1,101,000	126,000	12.9
Leak Detection	653,000	663,000	678,000	837,000	174,000	26.2
Quality Administration	173,000	191,000	184,000	197,000	6,000	3.1
Water Quality	1,638,000	1,743,000	1,615,000	1,774,000	31,000	1.8
Back Flow	823,000	857,000	825,000	871,000	14,000	1.6
Meter Repair	2,034,000	2,300,000	1,860,000	2,300,000	-	-
Treatment -Admin	158,000	170,000	167,000	182,000	12,000	7.1
Treatment	1,161,000	986,000	1,164,000	1,543,000	557,000	56.5
West Shores	1,066,000	1,034,000	1,141,000	1,090,000	56,000	5.4
Facilities Location	537,000	560,000	547,000	587,000	27,000	4.8
Valve & Hydrant	672,000	794,000	884,000	843,000	49,000	6.2
Maintenance Administration	412,000	186,000	178,000	189,000	3,000	1.6
Domestic Maintenance	1,426,000	1,667,000	1,568,000	1,829,000	162,000	9.7
Pressure Control Devices	1,133,000	1,185,000	1,091,000	1,612,000	427,000	36.0
Paving	818,000	1,145,000	1,093,000	1,202,000	57,000	5.0
Construction Administration	186,000	188,000	194,000	197,000	9,000	4.8
Construction Crew 1	1,210,000	1,258,000	1,167,000	1,309,000	51,000	4.1
Emergency Response Crew	293,000	276,000	285,000	282,000	6,000	2.2
<i>Sanitation</i>						
Collections Administration	419,000	412,000	410,000	425,000	13,000	3.2
Collections Construction	807,000	872,000	804,000	967,000	95,000	10.9
Collections Maintenance	1,472,000	1,460,000	1,382,000	1,552,000	92,000	6.3
Collections Operations	905,000	1,014,000	990,000	1,062,000	48,000	4.7
WRPs 7 & 9 Administration	1,759,000	1,326,000	1,345,000	1,430,000	104,000	7.8
WRPs 1, 2 & 4 Administration	840,000	795,000	874,000	850,000	55,000	6.9
WRP 10 Administration	2,192,000	2,331,000	2,545,000	2,510,000	179,000	7.7
WRPs 1, 2 & 4 Operations	1,101,000	1,346,000	1,170,000	1,307,000	(39,000)	(2.9)
WRPs 7 & 9 Operations	1,219,000	1,456,000	1,317,000	1,538,000	82,000	5.6
WRP 10 Operations	2,933,000	3,606,000	2,779,000	3,566,000	(40,000)	(1.1)
Mechanical - Admin	-	187,000	227,000	187,000	-	-
Mechanical - Technicians	-	1,916,000	1,786,000	1,963,000	47,000	2.5
Total	53,557,000	60,465,000	59,886,000	65,886,000	5,421,000	9.0%
Expenses by Fund						
Domestic Water	37,582,000	40,560,000	40,903,000	43,435,000	2,875,000	7.1
Canal Water	47,000	84,000	43,000	97,000	13,000	15.5
Sanitation	14,507,000	17,467,000	16,391,000	18,287,000	820,000	4.7
Stormwater	2,000	-	-	-	-	-
Nonpotable Water	1,419,000	2,354,000	2,549,000	2,587,000	233,000	9.9
West Whitewater Replenishment	-	-	-	1,480,000	1,480,000	-
Total	53,557,000	60,465,000	59,886,000	65,886,000	5,421,000	9.0%



FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	FTEs	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
535,536	7160	1002	Nonpotable Water Crew Chief	1.0	126,626	14,988	33,722	175,336	48,099
535	7263	1002	Domestic Leak Repair/Construction Distribution Operator I	1.0	98,475	-	-	98,475	-
535	7572	1002	Domestic Maintenance Distribution Operator I	1.0	98,475	-	-	98,475	-
Personnel Total				3.0	323,576	14,988	33,722	372,286	48,099
535	Various	1003	Overtime		14,355	-	-	14,355	-
580	Various	1003	Overtime		(1,790)	-	-	(1,790)	-
803	Various	1003	Overtime		6,000	-	-	6,000	-
580	Various	1015	Standby		2,940	-	-	2,940	-
803	7005	4808	Pool Billing		-	17,750	-	17,750	-
803	7005	2003	Conferences & Seminars		-	(2,000)	-	(2,000)	-
803	7005	Various	Offsets		-	(107)	-	(107)	-
536	7105	4001	Electricity IID - Moved to 7160		-	(250,000)	-	(250,000)	-
536	7105	4002	Electricity SCE - Moved to 7160		-	(1,100)	-	(1,100)	-
803	7105	4008	Water - Moved to 7160		-	(800)	-	(800)	-
536, 550	7105	4214	Chemicals Treatment - Moved to 7160		-	(64,000)	-	(64,000)	-
803	7105	7006	Canal Water - Moved to 7160		-	(1,302,000)	-	(1,302,000)	-
536	7105	7266	Outside ID 1 Surcharge - Moved to 7160		-	(129,776)	-	(129,776)	-
803	7105	Various	Offsets		-	487	-	487	-
536	7160	4001	Electricity IID - \$250,000 from 7105		-	400,000	-	400,000	-
536	7160	4002	Electricity SCE - \$1,100 from 7105		-	1,500	-	1,500	-
803	7160	4004	Mobile Telephone / Data		-	1,325	-	1,325	-
803	7160	4008	Water - \$800 from 7105		-	800	-	800	-
536, 550	7160	4214	Chemicals Treatment - \$64,000 from 7105		-	144,182	-	144,182	-
803	7160	4298	Work Orders		-	(40,000)	-	(40,000)	-
803	7160	7006	Canal Water - \$1,302,000 from 7105		-	2,832,000	-	2,832,000	-
536	7160	7266	Outside ID 1 Surcharge - \$129,776 from 7105		-	132,664	-	132,664	-
803	7160	Various	Offsets		-	189	-	189	-
535	7205	4001	Electricity IID		-	200,000	-	200,000	200,000
535	7205	4002	Electricity SCE		-	300,000	-	300,000	-
535	7205	7050	RAC Charges Paid		-	713,000	-	713,000	-
535	7205	4803	Insurance		-	(53)	-	(53)	-
535	7261	Various	Offsets		-	(876)	-	(876)	-
535	7262	4298	Work Orders		-	55,000	-	55,000	-
535	7262	Various	Offsets		-	2,798	-	2,798	-
535	7263	4298	Work Orders		-	65,000	-	65,000	-
535	7263	Various	Offsets		-	6,038	-	6,038	-
535	7264	4298	Work Orders		-	5,500	-	5,500	-
535	7264	5599	Contract Services - Leak Detection Pilot		-	120,000	-	120,000	-
535	7264	Various	Offsets		-	(60)	-	(60)	-
535	7305	Various	Offsets		-	247	-	247	-
535	7364	1015	Standby		5,130	-	-	5,130	-
535	7364	4004	iPhone (4)		-	1,508	-	1,508	1,508
535	7364	4004	Mobile Telephone / Data		-	1,308	-	1,308	-
535	7364	4214	Chemicals Treatment		-	150,000	-	150,000	-
535	7364	4299	Other Materials & Supplies		-	(55,000)	-	(55,000)	(55,000)
535	7364	Various	Offsets		-	(553)	-	(553)	-



FY 2019 Approved Supplemental Requests (Continued)

Fund	Dept./ Div.	Elem./ Object	Description	FTEs	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
535	7365	Various	Offsets		-	759	-	759	-
535	7366	Various	Offsets		-	632	-	632	-
535	7465	4214	Chemicals Treatment		-	25,000	-	25,000	-
535	7465	4802	Fuel		-	4,500	-	4,500	-
535	7465	5599	Contract Services - Increased Brine Removal		-	80,000	-	80,000	-
535	7465	5599	Contract Services - Replace Pressure Vessel at IXTP 6806		-	335,000	-	335,000	335,000
535	7465	4803	Offsets		-	(160)	-	(160)	-
535	7468	4805	Repair & Maintenance Labor		-	3,000	-	3,000	-
535	7468	Various	Offsets		-	1,270	-	1,270	-
803	7469	4004	Mobile Telephone / Data		-	1,308	-	1,308	-
803	7469	Various	Offsets		-	(233)	-	(233)	-
535	7470	Various	Offsets		-	(1,820)	-	(1,820)	-
535	7572	4205	iPad Pro		-	1,700	-	1,700	1,700
535	7572	4205	iPhone (3)		-	1,131	-	1,131	1,131
535	7572	4004	Mobile Telephone / Data		-	1,506	-	1,506	-
535	7572	4297	Small Tools & Equipment		-	12,000	-	12,000	-
535	7572	4298	Work Orders		-	75,000	-	75,000	-
535	7572	8003	Spin Doctor Valve Turner		-	-	14,500	14,500	14,500
535	7572	4802	Fuel		-	2,500	-	2,500	-
535	7572	4805	R&M Labor		-	3,000	-	3,000	-
535	7572	4805	R&M Parts		-	1,000	-	1,000	-
535	7573	4004	Mobile Telephone/Data		-	876	-	876	-
535	7573	4205	Computer Equipment		-	(5,800)	-	(5,800)	-
535	7573	4297	Small Tools & Equipment		-	7,900	-	7,900	-
535	7573	5599	Contract Services-Rebuild Air Vacs		-	367,984	-	367,984	-
535	7573	Various	Offsets		-	(2,696)	-	(2,696)	-
535, 580	7574	4297	Small Tools & Equipment-K-Rails		-	13,500	-	13,500	13,500
535, 580	7574	4803	Offsets		-	(213)	-	(213)	-
535	7605	4205	iPad Pro		-	1,700	-	1,700	1,700
535	7676	4805	R&M Labor		-	2,000	-	2,000	-
535	7676	4806	R&M Parts		-	1,000	-	1,000	-
535	7676	Various	Offsets		-	(639)	-	(639)	-
535	7678	4004	Mobile Telephone / Data		-	620	-	620	-
580	7705	4001	Electricity IID		-	8,000	-	8,000	-
580	7781	4297	Small Tools & Equipment-Lay Flat Hose, Fittings, Valves, Etc.		-	27,500	-	27,500	27,500
580	7781	4297	Small Tools & Equipment-Shoring Panels		-	5,200	-	5,200	5,200
580	7781	4297	Small Tools & Equipment-Storage Unit		-	5,400	-	5,400	5,400
580	7781	Various	Offsets		-	(146)	-	(146)	-
580	7782	1003	Overtime		20,390	-	-	20,390	20,000
580	7782	4004	iPhone (2)		-	754	-	754	754
580	7782	4004	Mobile Telephone / Data		-	654	-	654	-
580	7782	4805	R&M Labor		-	1,500	-	1,500	-
580	7782	4806	R&M Parts		-	500	-	500	-
580	7782	4803	Insurance		-	(426)	-	(426)	-
580	7783	1003	Overtime		20,390	-	-	20,390	20,000
580	7783	4004	Mobile Telephone / Data		-	725	-	725	-
580	7783	4297	Small Tools & Equipment-Portable Generator		-	1,800	-	1,800	1,800
580	7783	4805	R&M Labor		-	3,000	-	3,000	-
580	7783	4806	R&M Parts		-	500	-	500	-
580	7783	Various	Offsets		-	(390)	-	(390)	-



FY 2019 Approved Supplemental Requests (Continued)

Fund	Dept./ Div.	Elem./ Object	Description	FTEs	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
580	7805	4001	Electricity IID		-	120,000	-	120,000	-
580	7805	Various	Offsets		-	1,047	-	1,047	-
580	7810	4006	Trash Removal / Recycling		-	(5,000)	-	(5,000)	-
580	7810	7201	Equipment Leases		-	2,400	-	2,400	-
580	7810	Various	Offsets		-	547	-	547	-
580	7815	4002	Electricity SCE		-	200,000	-	200,000	-
580	7815	7212	Effluent Disposal Costs		-	(50,000)	-	(50,000)	-
580	7815	Various	Offsets		-	(107)	-	(107)	-
580	7884	4297	Small Tools & Equipment		-	(99,000)	-	(99,000)	-
580	7884	5539	Biosolids Transport		-	(50,000)	-	(50,000)	-
580	7884	5599	Contract Services		-	(21,600)	-	(21,600)	-
580	7884	8003	Aerator (4)		-	62,000	-	62,000	62,000
580	7884	8003	Muffin Monster Cutter Blades & Housing		-	31,000	-	31,000	31,000
580	7884	8003	Muffin Monster Auger, Gearbox, Motor		-	16,800	-	16,800	16,800
580	7884	Various	Offsets		-	587	-	587	-
580	7885	4004	Mobile Telephone / Data		-	1,000	-	1,000	-
580	7885	4297	Small Tools & Equipment-CL2 Analyzer (3)		-	18,000	-	18,000	18,000
580	7885	5539	Biosolids Transport		-	(25,000)	-	(25,000)	-
580	7885	5599	Contract Services-Additional for Plant		-	18,021	-	18,021	-
580	7885	Various	Offsets		-	(213)	-	(213)	-
580	7886	4205	Water Information Management Solution		-	200,000	-	200,000	200,000
580	7886	4214	Chemical Treatment		-	25,000	-	25,000	-
580	7886	4805	R&M Labor		-	1,000	-	1,000	-
580	7886	4806	R&M Parts		-	500	-	500	-
580	7886	5539	Biosolids Transport		-	(25,000)	-	(25,000)	-
580	7886	8002	Phase III Plant Asphalt Rehab		-	225,000	-	225,000	225,000
580	7886	8003	WRP Pumps		-	75,000	-	75,000	75,000
580	7905	Various	Offsets		-	(143)	-	(143)	-
536, 580	7990	1003	Overtime		617	-	-	617	-
536, 580	7990	1015	Standby		600	-	-	600	-
580	7990	4298	Work Orders		-	(25,000)	-	(25,000)	-
580	7990	4801	Equipment Usage		-	6,886	-	6,886	-
580	7990	4808	Pool Billing		-	(26,000)	-	(26,000)	-
580	7990	Various	Offsets		-	604	-	604	-
Other Total				-	68,632	4,971,196	14,500	5,054,328	1,222,493
Operations Combined Total				3.0	392,208	4,986,184	48,222	5,426,614	1,270,592

Assistant Director of Operations - Domestic/Nonpotable Water

1

Domestic Production	20
Chief Serviceworker Production	1
Crew Chief	1
Sr. Serviceworker	2
Serviceworker III	3
Serviceworker II	3
Serviceworker I	4
Serviceworker Trainee	1
Distribution Operator III	1
Distribution Operator II	2
Distribution Operator I	1
Distribution Utility Worker II	1

Domestic Water Treatment	13
Water Treatment Supervisor	1
Water Treatment Crew Chief	1
Water Treatment Operator I	2
Water Quality Crew Chief	1
Water Quality Operator III	1
Water Quality Operator II	3
Water Quality Operator I	4

Domestic Construction	19
Domestic Water Supervisor-Construction	1
Leak Repair Crew Chief	1
Leak Repair Distribution Operator III	1
Leak Repair Equipment Operator I	1
Leak Repair Dist. Operator Trainee	3
Leak Repair/Construction Crew Chief	1
Leak Repair/Construction Equip. Operator I	1
Leak Repair/Construction Dist. Operator I	1
Leak Repair/Construction Dist. Operator Trainee	1
Leak Repair/Construction Dist. Utility Wrkr II	1
Leak Repair/Construction Dist. Utility Wrkr I	1
Construction Crew Chief	1
Construction Equipment Operator I	1
Construction Distribution Operator I	1
Construction Distribution Utility Worker I	1
Construction Dist. Operator Trainee	2

Nonpotable Water/Backflow	14
Nonpotable Water Manager	1
Nonpotable Water Crew Chief	1
Nonpotable Water Technician I	1
Cross-Connection Crew Chief	1
Cross-Connection Technician III	1
Cross-Connection Technician II	2
Cross-Connection Technician I	3
Facilities Location Crew Chief	1
Facilities Location Technician III	1
Facilities Location Technician II	2

Domestic Metering Systems	21
Domestic Water Supervisor-Metering	1
Leak Detection Crew Chief	1
Leak Detection Meter & Valve Tech II	4
Leak Detection Meter & Valve Tech I	1
Meter Repair Crew Chief	1
Meter Repair Meter & Valve Tech II	2
Meter Repair Meter & Valve Tech I	1
Meter Repair Meter & Valve Tech Trainee	3
PCD/Air Vac Crew Chief	1
PCD/Air Vac Meter & Valve Tech III	1
PCD/Air Vac Meter & Valve Tech II	2
PCD/Air Vac Meter & Valve Tech Trainee	3

Domestic System Maintenance	22
Domestic Water Supervisor-Maintenance	1
Valve & Hydrant Crew Chief	1
Valve & Hydrant Distribution Operator II	2
Valve & Hydrant Distribution Operator I	2
Valve & Hydrant Distribution Op. Trainee	1
Maintenance Crew Chief	1
Maintenance Distribution Operator III	1
Maintenance Equipment Operator I	2
Maintenance Distribution Operator II	1
Maintenance Distribution Operator I	4
Maintenance Distribution Operator Trainee	1
Paving Crew Chief	1
Paving Distribution Operator III	1
Paving Equipment Operator I	2



Domestic/Nonpotable Division Descriptions

Domestic Water and Nonpotable Operations are responsible for the daily operations of the domestic water system, ensuring that the water meets all quality standards, the reservoirs are full, and system water is at pressure. Nonpotable Water is responsible for expanding the use of nonpotable water for golf course and landscape irrigation, ensuring that there are no potential cross-connections, and for maintaining and testing backflow devices in order to ensure the integrity of the domestic water quality. Domestic and Nonpotable maintain their particular focuses on the following functions and activities:

Domestic Production

- First responders to all domestic water customer service issues (5,000+ received yearly)
- Records and reports the production of all 95 active wells on a monthly basis
- Inspects the District's 62 reservoirs twice yearly
- First responders to all domestic water active pumping facilities alarms (500-700 received yearly from the District's 95 active wells, 56 booster stations and 62 reservoirs)
- Responsible for ensuring that all 95 active wells, 56 booster stations, and 62 reservoirs are kept clean, safe, and receive maintenance to ensure proper operation
- Participates in the planning, coordination, and implementation of the District's reservoir inspections and rehabilitation projects on all 62 active reservoirs
- Monitors the 12 separate pumping/production zones and makes or approves necessary changes to ensure proper water pressure and reservoir levels are maintained at all times on a daily basis
- Responds to and documents thefts and vandalism to domestic water pumping facilities and appurtenances
- Provides service 24 hours a day, 7 days a week
- The West Shores Crew maintains the West Shores area by performing some or all of the duties of the service workers, leak repair, meter repair, maintenance, and construction divisions

Domestic Water Treatment

- Provides disinfection of the District's drinking water supply, which consists of wellhead chlorination at the District's 95 active wells
- Maintains, repairs, and operates three Ion Exchange Treatment Plants (IXTPs) utilized by the District for arsenic and chromium-6 (Cr-6) removal, to ensure safe drinking water
- Maintains and provides water tenders for use in the event of an emergency water outage and for community events promoted by the District's public outreach group

Domestic Metering Systems

- Responsible for facilitating the completion of the domestic water system's water loss audit reports and submitting to the state annually

Pressure Control Device and Air Vac

- Maintain, repair, and troubleshoot 2,412 combination air-vacuum/air-release (Air Vacs) valves and 509 hydraulic and automatic control valves, located in the potable water system
- Crews maintain, repair, and test 138 hydropneumatic tanks and air compressors, in order to assure the distribution system is protected from pressure surges and dangerous pressure spikes

Leak Detection

- Surveys the domestic distribution system for nonsurfacing leaks
- Assists Wastewater Reclamation Plants (WRPs), Collections, and Nonpotable Crews in tracing the source of possible leaks

Meter Repair

- Maintains, repairs, and replaces the District's 110,512 domestic meters, 95 District well meters, and 382 RAC well meters
- Annually tests customer water meters for accuracy to obtain a representative sample of our customer meter population (data collected is used in our water loss audit report mandated by the State)
- Annually tests all CVWD production well meters for accuracy (data collected will be used in our water loss audit report mandated by the State)

Domestic System Maintenance

- Responsible for repairing and replacing all nonoperable valves and fire hydrants, including the ones damaged by motorists
- Responsible for constructing all new domestic water well ancillary improvements including all piping (above and below ground), valves, air compressors, and all other related hydropneumatic tank (surge tanks) appurtenances

Valve & Hydrant

- Maintains, exercises, flushes, inspects, and maintains all valves and fire hydrants in the domestic water system
- Performs hydrant flow testing and paints all fire hydrants

Paving

- Performs all asphalt repairs

Domestic Construction

- Responsible for domestic water construction and leak repairs
- Installs new appurtenances such as: detector check valve assemblies, fire hydrants, stub-out connections (point of connection for new development), water services, meters, and backflow devices
- Works on pipelines from 4 inches up to 48 inches in diameter

Leak Repair Crew

- Repairs domestic water mainlines and service lines that extend from the mainline up to the customer's meter
- Works on pipelines from 4 inches up to 48 inches in diameter

Nonpotable

- Assists customers in maximizing the use of recycled and canal water, to reduce reliance on groundwater pumping in order to protect the Valley's water supply
- Markets and promotes the use of nonpotable water in the community
- Holds an annual training event for recycled water customers
- Performs cross-connection testing for each site that uses recycled water, as regulated by State Water Resource Control Board and Regional Water Quality Control Board and at golf course sites irrigating with canal water
- Ensures that customers irrigating with recycled water are abiding by recycled water regulations
- Operates and maintains the nonpotable water distribution system and appurtenances
- Will operate the Palm Desert Replenishment Facility

Backflow

- Tests, repairs, and replaces backflow devices each year, as required by the state
- Conducts field investigations for Development Services and Water Management, and other Divisions requiring field investigations

Facilities Location

- Marks all District facilities for the general public, construction contractors, and other municipalities in order to prevent damage
- Communicates necessary plat sheet updates with Engineering

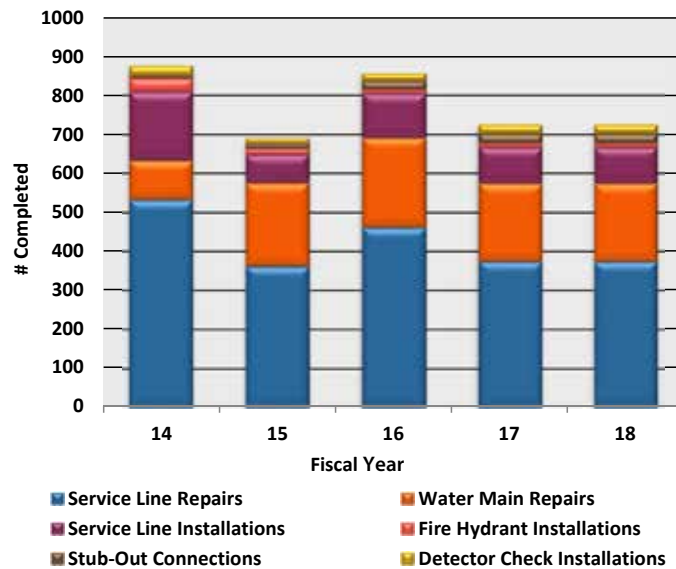
Domestic Water Metrics

Domestic Operations Workload Measures

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Fire Hydrant Flow Tests	52	22	40	42	-
Repaired/Replaced Fire Hydrants	312	403	200	203	216
Repaired/Replaced Main Line Valves	164	145	170	182	196
Asphalt Replaced - Square Feet	59,034	67,171	57,585	84,404	74,238
Concrete Collars Replaced	174	134	89	63	83
Proactive Meter Replacements*	-	4,455	2,950	2,050	1,745
Meter Installations	489	423	477	453	476
Meter Exchanges	2,778	1,467	1,445	1,953	2,065
Meter Register and Box Repairs	4,892	3,436	3,507	4,110	3,801
Automate Meter Reading (AMR) Meter Upgrades*	648	177	416	587	643
Customer Service Calls	5,373	4,474	4,975	4,748	4,893
Facilities Maintained	9,255	11,721	9,195	14,438	17,869
Facilities Repaired/Replaced	252	434	154	644	975
Backflows Tested	11,547	8,952	9,137	10,392	9,836

* Includes replacements and upgrades completed by Contractor for fiscal 2018

Domestic Water Operations Workload Indicators



A portion of the workload indicators are initiated by customer contact. On average in fiscal 2018, staff spent 62% of the time working on recurring maintenance. For fiscal 2019, three additional crew members were approved for the Operations Department. One of these positions will work in nonpotable water, one will work in domestic leak repair-construction, and one will work in domestic maintenance. The positions are essential to improving customer response and allowing staff in domestic water to focus on their primary workloads. These positions will also allow the District to supervise, develop, and coordinate the cross-connection testing program for golf course communities that receive canal water and the implementation of the Palm Desert Replenishment Facility.

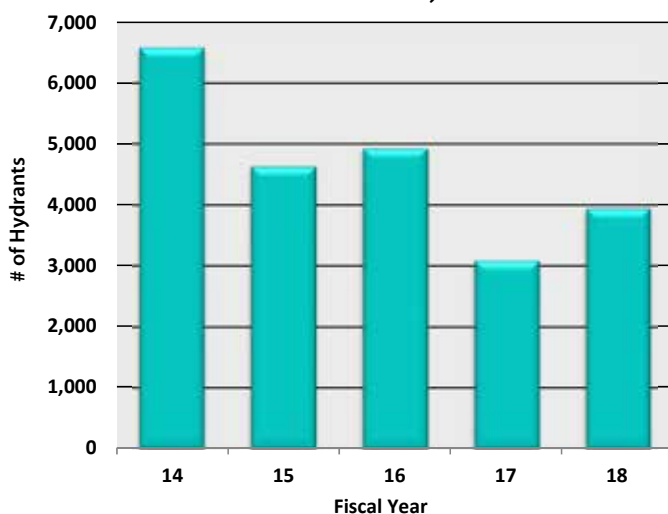
Domestic Water Technical Quality Complaints

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Air in the Lines	45	63	53	48	53
Bad Taste	21	39	40	36	60
Pressure Problem	306	261	225	278	337
No Water	415	348	318	335	388
Sand in Water	71	48	21	23	38
Service Line Problems	226	223	188	211	246
Total	1,084	982	845	931	1,122
Complaints Per 1,000 Accounts	9.98	9.00	7.71	8.47	10.21

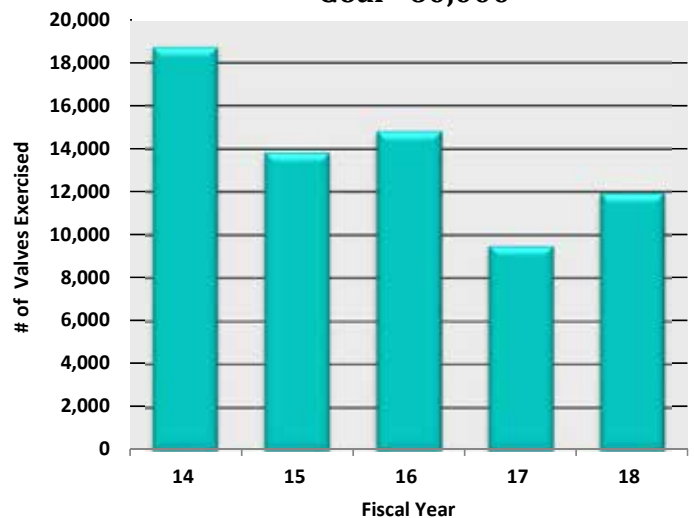
Overall, the number of domestic water quality complaints have decreased over the last five years, as reflected in the above table. The District continually strives to provide the best service each year and to reduce the number of complaints received.

The following graphs show the backlog of the Operations Domestic Water Department for fire hydrant and valve maintenance. American Water Works Association (AWWA) standards state that all system fire hydrants and valves should be exercised, flushed, and maintained annually. It is expected that the backlog will improve in fiscal 2019.

Fire Hydrants Exercised
Goal - 17,000

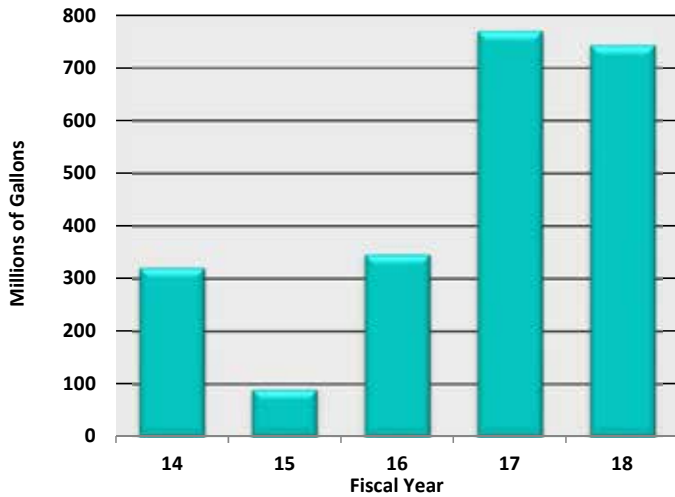


Valves Exercised
Goal - 60,000

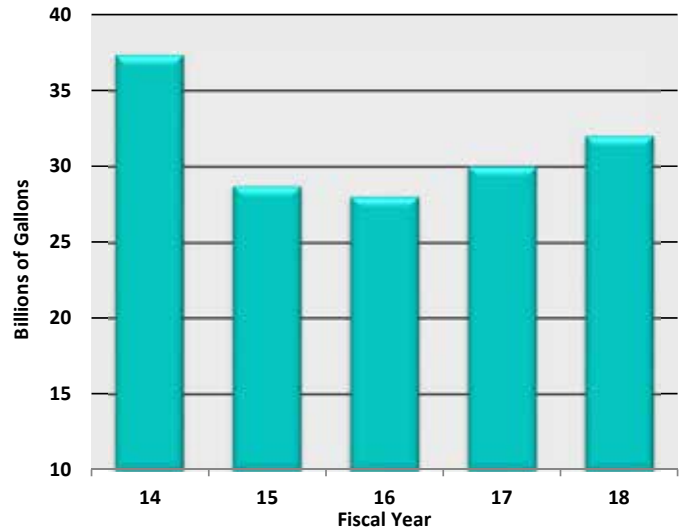


The first graph depicts a decline in the amount of water treated at the ion-exchange treatment plants between fiscal 2014 and 2015. This resulted from adding a redundant source of supply for the areas served and taking the ion-exchange plants offline for repair. In fiscal 2016, with the repairs complete and treatment plants back online, water treatment increased. With drought restrictions being lifted in fiscal 2017, consumption rose, which dramatically increased the amount of water treated at the ion-exchange treatment plants. In fiscal 2018 there was a slight decrease in water treated. The second graph shows the amount of water chlorinated. As expected, the amount chlorinated mirrors consumption. So as consumption increases, so does the amount of water chlorinated.

Water Treated at Ion-Exchange Treatment Plants



Water Chlorinated



As conservation increased, the amount of water consumed and the amount of water chlorinated decreased. With drought restrictions being lifted in 2017, domestic water consumption has increased, creating a correlating increase in the amount of water chlorinated.



Chlorine Building at WRP 10

Fiscal 2017-18 Accomplishments

Nonpotable

- Implemented cross-connection testing program for golf courses using canal water
- Completed connections and began delivery to Indian Springs golf course and two courses at Palm Valley Country Club
- Developed an operation and maintenance (O&M) program for valves, Cla-Vals, and air vacs on the Nonpotable water distribution system and Mid-Valley Pipeline

Domestic Water

- Installed two chlorine tablet feeders at active wells that were not using any type of disinfection system
- Converted remaining four onsite generation system to chlorine tablet feeders
- Converted all gas CL2 sites to chlorine tablet feeders
- Conducted job hazard analysis on various water treatment and water quality procedures
- Replaced four pressure regulating stations
- Completed 58 proactive service line replacements
- Upgraded 461 meters to AMR on Route 16 (Ave 72 - Vander Veer Rd. - Look Out Ave. - Ave 70)
- Tested 378 customer meters for accuracy to obtain a representative sample of our customer meter population (data collected will be used in our water loss audit report mandated by Senate Bill 555)
- Tested 94 CVWD production well meters for accuracy (data collected will be used in our water loss audit report mandated by Senate Bill 555)
- Executed meter replacement program, replacing selected meters 20 years and older
- Completed and finalized the addition of all hydraulic valves into the geographical information tracking system
- Developed a pressure management plan for Improvement District (ID) 11 and lower Salton City pressure zones
- Developed a program utilizing the correlating/data loggers for leak detection
- Surveyed the domestic water system in 24 months
- Reduced the maintenance backlog by 23%
- Developed a site maintenance checklist to ensure that all domestic sites are maintained to the recommended Best Management Practices (BMP)
- Updated 23 reservoirs to current climbing safety standards
- Completed rehabilitation of Booster Site 04701
- Developed an informational training book/guide for employees on standby
- Installed cameras and lighting at Wells 6805, 6808, and Booster 04701 to deter theft
- Installed cameras and lighting at the West Shores Facility to improve surveillance and deter theft



Reservoir in Rancho Mirage, CA

Fiscal 2018-19 Goals

Nonpotable

- Identify and GPS all nonpotable water appurtenances (meters, valves, air vacs, Cla-Vals) for ArcGIS and CMMS
- Implement the Palm Desert Replenishment Facility Groundwater Recharge Program

Domestic Water

- Develop a Sample Station Maintenance Program to inspect and repair existing sample stations within the domestic distribution system
- Upgrade two aging disinfection systems to newer style tablet feeder
- Implement quarterly inspection of bulk salt storage tanks for foreign objects and debris
- Install fall protection restraints at Ion Exchange Treatment Plants (IXTPs) 6806 and 7802
- Replace all resin pressure vessels at IXTP 6806
- Complete 50 proactive service line replacements
- Update 40 reservoirs to current climbing safety standards
- Update the domestic hydraulic system
- Reduce the West Shores maintenance backlog by 20%
- Complete corrosion engineering evaluation and cleaning of seven domestic water storage reservoirs
- Execute a contract to rebuild 100 air-vacuum/air-release valves to standard within the domestic water system
- Complete data collection of the air-vacuum/air-release valves into the geographic information tracking system
- Create standard operating procedures (SOPs) for pilot program with Utilis using satellite technology to locate nonsurfacing leaks
- Survey the domestic water system in 12 months
- Upgrade 508 meters to AMR type in Cycle 6 Route 14 & 17
- Test 400 customer meters for accuracy to obtain a representative sample of our customer meter population (data collected will be used in our water loss audit report mandated by Senate Bill 555)
- Test 95 CVWD production well meters for accuracy (data collected will be used in our water loss audit report mandated by Senate Bill 555)
- Execute meter replacement program, replacing selected meters 20 years and older
- Identify and GPS all backflow devices for ArcGIS and CMMS
- Look into a new software program for the Backflow Testing Program
- Review the temporary service meter program for potential backflow installations as recommended by Division of Drinking Water (DDW)
- Look into a new software program for the Dig Alert responses
- Implement new call out program for emergency after hours facility location requests
- Reduce the maintenance backlog by 20%

Assistant Director of Operations - Sanitation

1

Sanitation Collections		21	Wastewater Reclamation Plant 1,2,4		7
Collections Supervisor	1		Wastewater Reclamation Plant Supervisor	1	
Collections Construction Crew Chief	1		WRP Assistant Supervisor	2	
Collection Systems III	1		WRP Operator III	1	
Collection Systems I	2		WRP Operator II	2	
Collection Systems Trainee	2		WRP Operator I	1	
Collections Maintenance Crew Chief	1		Wastewater Reclamation Plant 7 9		
Collection Systems III	1		WRP Supervisor	1	
Collection Systems II	2		WRP Assistant Supervisor	2	
Collection Systems I	1		WRP Operator III	1	
Collection Systems Trainee	2		WRP Operator II	3	
Collections Operations Crew Chief	1		WRP Operator I	1	
Collection Systems III	1		WRP Operator Trainee	1	
Collection Systems II	1		Wastewater Reclamation Plant 10 17		
Collection Systems I	2		WRP Chief Operator	1	
Collection Systems Trainee	2		WRP Shift Supervisor	3	
Mechanical			11	WRP Assistant Shift Supervisor	3
Mechanical Supervisor	1			WRP Operator III	3
Mechanical Crew Chief	1	WRP Operator II		2	
Mechanical Technician II	6	WRP Operator I		4	
Mechanical Technician I	3	WRP Operator in Training		1	

Sanitation Division Descriptions

Sanitation is responsible for the daily operations of the District’s wastewater collection and wastewater treatment systems, which includes 27 lift stations, 1,095 miles of sewer pipeline, 22,000+ manholes, 135 air relief valves, and 5 wastewater reclamation plants (WRPs). Responsibilities include ensuring optimal recycling of wastewater, biosolids, and other resources using safe and effective processes and systems, with particular focus on the following functions and activities:

Sanitation Collections

- Collects wastewater from residential and commercial establishments
- Safely transports wastewater to one of five wastewater reclamation plants for treatment

Collections Construction

- Installs, relocates, and repairs collection systems mainline facilities and mainlines of the nonpotable water distribution system
- Assists with maintenance and repairs at all five WRPs

Collections Maintenance

- Responsible for daily, monthly, quarterly, and biannual jetting and cleaning of the collections system
- Cleans lift station wet wells, performs manhole maintenance, and responds to customer service calls related to the collections system



Collections Operations

- Completes lift station inspection and general cleaning, air relief valve maintenance and repair, video inspection of the sewers, dredging operations, bypass pump set up, investigates trouble spots, and performs general condition assessments

Wastewater Reclamation Plants

- Responsible for the overall operation and supervision of all District WRPs, which treat approximately 6 billion gallons of wastewater annually
 - » WRPs 1 and 2 are simple sludge lagoon plants
 - » WRP 4 consists of Biolac activated sludge, solids handling, sludge lagoon treatment and disinfection. WRP 4 discharges into the Coachella Valley Stormwater Channel and is the District's only plant with a National Pollutant Discharge Elimination System (NPDES) permit
 - » WRPs 7 and 10 use conventional activated sludge as the treatment process, along with chlorine disinfection
 - » WRPs 7 and 10 treat wastewater to tertiary treatment levels to meet state standards for nonpotable water for golf course and landscape irrigation

Mechanical

- Plans, organizes, and supervises maintenance activities, and repairs of the mechanical equipment at the District's wastewater reclamation plants, lift stations, pumping plants, and related equipment in the sanitation system
- Coordinates the design and construction of mechanical equipment to meet the District's sanitation system needs

Sanitation Metrics

Sanitation Operations Workload Measures

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Vactor/Jetting of Lines - Linear Feet	504,848	468,752	537,196	553,986	563,334
Manholes Inspected	9,372	9,931	14,149	9,503	20,691
Air Vac Maintenance	N/A	937	976	1,301	1,180
Video Assessment of Lines - Linear Feet	156,434	282,248	309,692	198,904	329,717

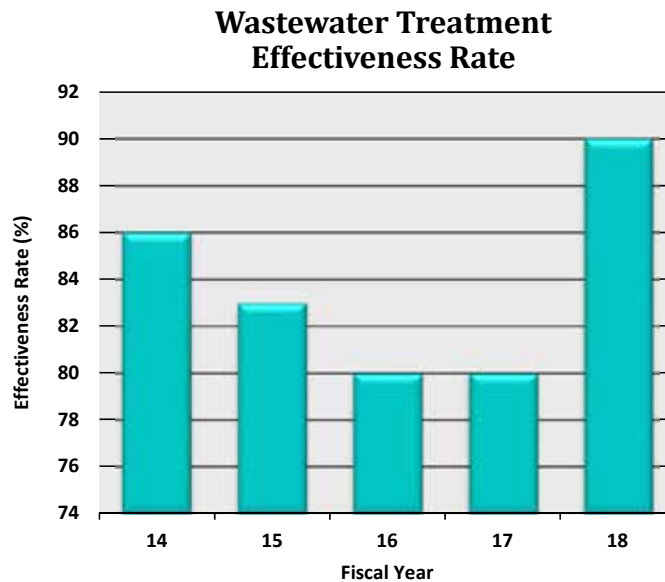
The above table depicts various workload indicators of the Sanitation Collection Crews.

Sanitation Technical Quality Complaints

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Sewer Backup	20	24	17	18	20
Blockage	3	4	1	2	1
Noisy Manhole	4	2	5	2	12
Odor Complaint	27	47	52	37	54
Manhole Overflowing	5	2	2	1	2
Rodent Problem	4	2	5	7	13
Roach Problem	26	15	11	12	12
Total	89	96	93	79	114
Complaints Per 1,000 Connections	1.29	1.28	1.14	0.86	1.24

The Sanitation division continues to focus on proactive maintenance. This is reflected in the above table.

The following graph reflects a five-year history of wastewater treatment effectiveness.



Fiscal 2017-18 Accomplishments

Strategic Plan

- Implemented work for top energy audit recommendations at WRP 10

Water Reclamation Plants

- Completed WRP 10 T1 Tertiary Filter Lining Upgrade Project
- Initiated work on a Sanitation Master Plan Project for WRPs and Lift Stations
- Started work on WRP 10 Replenishment Recharge Project
- Implemented modal contact time monitoring in SCADA at WRP 7
- Completed installation of new chlorine & sulfur dioxide analyzers at WRP 4
- Executed and completed Asset Management/CMMS assessment project for all vertical assets in the WRPs

Collections

- Completed decommissioning of Lift Station 55-13 in La Quinta
- Coordinated top CIP priority projects throughout the District's collection systems
- Completed efforts to allow redundant system on sewer force main at Avenue 58 and Monroe
- Completed a condition assessment of valves and fittings at the intersection of Jefferson and Avenue 50
- Completed annual jet cleaning/debris removal and video inspection of the collection systems
- Executed and completed Asset Management/ CMMS project for assessment and visual inspection which included over 22,000 manholes and 30 lift stations in CVWD's collection system

Mechanical

- Completed decommissioning of Lift Station 55-13
- Assisted with the WRP 7 Biosolids and Clarifier Upgrade Projects
- Completed the WRP 10 T1 Tertiary Filter Upgrade Project
- Replaced plant water lines at the WRP 10 C-Plant Clarifiers

Fiscal 2018-19 Goals

Strategic Plan

- Continue coordination of top energy audit recommendations at WRP 10 and implement energy audits for WRP 1, 2, 4, and 7

Water Reclamation Plants

- Coordinate Lagoon Liner Design and Upgrade Project at WRP 2
- Coordinate completion of WRP 7 Biosolids and Clarifier Upgrade Project
- Coordinate completion of WRP 10 B & C Plant Upgrade Project, Phase I
- Coordinate completion of WRP 10 Replenishment Recharge Project, Phase I
- Coordinate chemical safety equipment upgrade project for WRP 7 and WRP 10

Collections

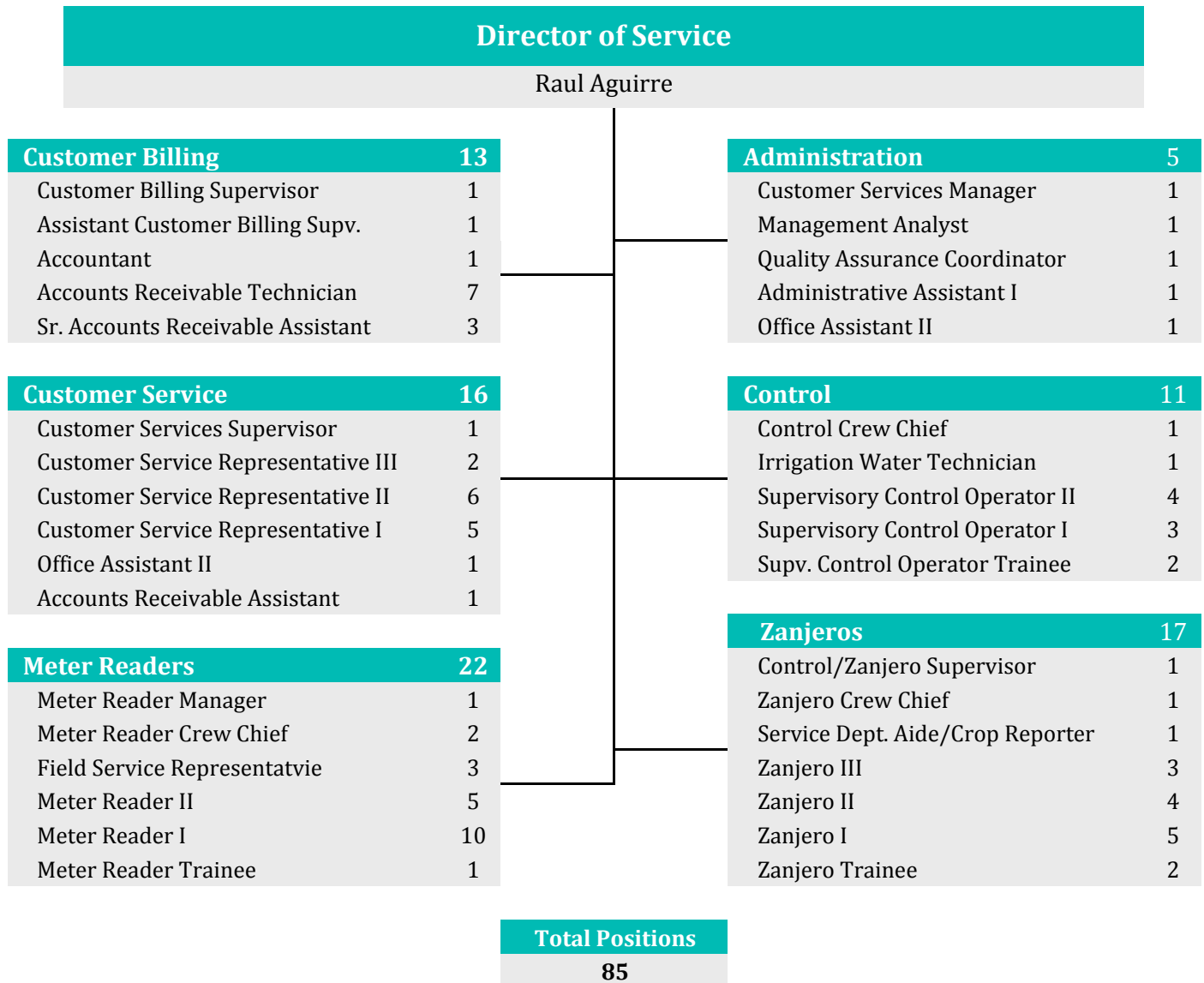
- Coordinate work for various manhole rehabilitations utilizing new technology
- Coordinate and execute jet cleaning/debris removal and video inspection of the collection systems
- Decommission Lift Station (LS) 81-03
- Coordinate new construction of LS 81-01 and 81-03
- Conduct an audit on Sanitation Collection Systems Sanitary Sewer Master Plan and Sanitary Sewer Overflow Response Plan (SSMP/SSORP)

Mechanical

- Replace discharge piping at LS 55-21
- Coordinate and complete septage receiving station #2 upgrades
- Coordinate and complete WRP 10 plant water line replacement
- Plan and coordinate efforts to upgrade odor control systems at various lift stations
- Replace Biolac drain pumps and upgrade guide rails at WRP 4

Service





Department Description

The Service Department has a variety of roles focusing on customer interaction on the phones, in the field, over the counter, and through written correspondence. Every division strives to promote a customer-friendly experience that covers the complete life cycle of the customer’s account. Working closely within the department, as well as the entire District, the department plays a significant role in ensuring overall customer satisfaction.

Mission

Our mission is to offer our customers the highest quality of service, delivered with dedication and professionalism. We will exceed our customers’ expectations by anticipating their needs and listening to their requests. Each request will be managed efficiently and honestly to ensure complete customer satisfaction.

Core Values

- Offer the customer options and solutions in all that we do
- Reduce the customer’s effort to manage their account with CVWD
- Interact with others with patience, empathy, and integrity and be accountable for the statements and actions we make



- Seek out knowledge that will drive innovation and embrace the changes that result
- Approach problems with an open and creative mind and a willingness to discover creative solutions
- Proactively communicate and collaborate with others to positively make a difference

Division Descriptions

The Service Department is organized into six divisions that provide customer-related services to the District's entire customer base. The department provides administrative services, supervisory control and data acquisition (SCADA) system monitoring, customer billing, meter reading, customer service, customer relations, and irrigation water delivery, with particular focus on the following functions and activities:

Administration

- Supports the District's efforts to improve the customer experience by engaging in quality assurance programs, developing recommendations for new policies, policy changes, and improved procedures based upon research, data analysis, and best practice

Control

- Provides SCADA system monitoring and analysis of the entire domestic, sanitation, irrigation, stormwater, nonpotable, and security systems
- Monitors numerous alarms and canal operations
- Monitors repairs stemming from monitored alarms
- Provides emergency phone service, dispatch call-outs, and system troubleshooting

Customer Billing

- Completes billing for all water-related services, including: domestic water, sanitation, well replenishment, nonpotable, canal, and canal water availability
- Receives and processes all customer payments and billing adjustments on a daily basis
- Performs collection activities, customer notification of past due accounts, liens, and promissory notes

Meter Readers

- Collects manual and automated meter reads, along with monthly reading of construction meters and replenishment assessment charge (RAC) well meters
- Responsible for customer turn-ons, final reads, as well as delinquent turn-offs
- Works with customers to perform meter accuracy tests and resolve complaints
- Investigates possible causes of high consumption issues

Customer Service

- Handles over 500 calls per day on average, which is approximately 80% of all incoming calls to the District
- Assists with new customer accounts, payments, canal irrigation orders, high consumption issues, and closing accounts
- Responds to customer questions through written correspondence

Zanjeros

- Delivers canal water to the farming community and golf courses throughout the 123-mile canal irrigation delivery system seven days a week from 6 a.m. to 10 p.m., with standby service during off hours
- Delivers canal water to Water Reclamation Plants (WRPs) 7 and 10 for blending purposes, and to the East Whitewater replenishment ponds of the Thomas E. Levy Groundwater Replenishment Facility (TEL)
- In charge of operations at the TEL Facility
- Monitors tailwater and regulatory spills
- Delivers irrigation water to an average of 500 meters daily throughout six delivery areas
- Conducts field investigations and collects data for annual crop report
- Works with customers to resolve canal water delivery issues

Service Metrics

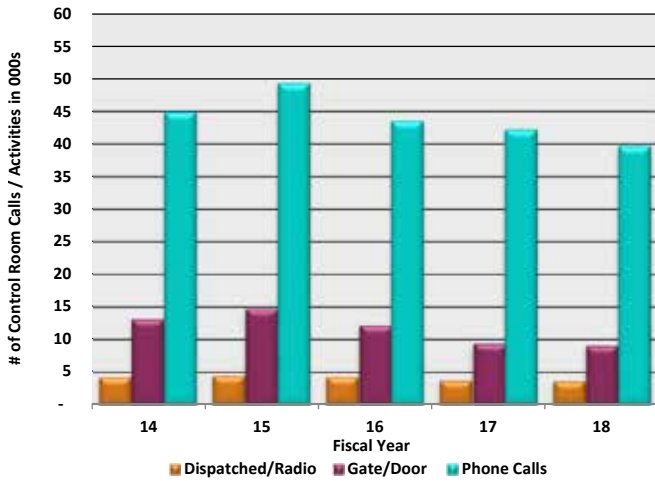
Service Workload Measures

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Administration					
Positive Customer Comment Cards	N/A	30	67	38	58
Control					
Average Number of Alarms per Shift	1,302.0	1,003.0	682.6	548.4	432.0
Average Number of Critical Alarms per Shift	67.5	74.9	59.3	52.0	41.0
Number of SCADA Alarms per Year	1,425,688	1,098,292	749,451	600,479	473,246
Met Established Training Standards	N/A	N/A	Yes	Yes	Yes
Customer Billing					
Maintain Average Receivables Over 90 Days - Goal 6.26% or Less	N/A	6.25	4.37	3.52%	4.92%
Maintain Assessor's Parcel Number (APN) Rejection Rate of 2% or Less	N/A	0.1%	0.1%	0.0%	0.0%
Complete Daily Bank Deposit by 3:30 PM - Goal 80% or more	N/A	75.0%	72.0%	75.0%	91.0%
Requests for Account Review	N/A	1,337	3,571	1,672	1,720
Met Established Training Standards	N/A	N/A	No	Yes	Yes
Customer Service					
Calls Received	125,443	132,083	140,288	116,002	116,000
Calls Answered	119,812	123,789	137,000	114,288	114,000
Calls Answered Within 3 Minutes or Less - Goal 90% or More	64.5%	63.5%	93.3%	93.8%	91.0%
Average Abandon Rate - Goal 5% or less	4.7%	6.7%	2.4%	1.2%	1.7%
Average Call Handle Time - Goal 4 minutes or less	2:48	2:58	3:38	3:02	2:57
Average Wait Time - Goal 2 minutes or less	1:25	1:30	1:54	1:40	1:59
Met Established Training Standards	N/A	N/A	Yes	Yes	Yes
Meter Readers					
AMR Meters Read Manually to Assure Accuracy & Function - Goal 3,000	N/A	N/A	4,084	4,250	4,282
Average Number of Meters Read Monthly	108,451	108,933	109,418	109,774	110,533
Average Number of AMR Meters Read Monthly using Drive-By System	14,873	15,399	16,322	17,279	18,319
Met Reading and Billing Deadlines, Cycle Standards (28 to 32 days)	Yes	Yes	Yes	Yes	Yes
Direct Read Meters Upgraded to AMR Meters	648	182	648	480	522
Nonrecurring Work Orders Completed	41,655	44,170	47,211	49,626	50,713
Met Established Training Standards	N/A	N/A	Yes	Yes	Yes
Zanjeros					
Valves Exercised Annually - Goal 1,000	N/A	333	1,013	1,086	1,052
Average Minutes per Meter	N/A	4:21	4:19	4:19	4:21
Percent of Calls Going to the Night Shift	N/A	0.4%	0.3%	0.2%	0.2%
Met Established Training Standards	N/A	N/A	Yes	Yes	Yes
Acre-feet Recharged at TEL	34,751	36,029	37,471	37,860	28,290
Irrigable Acres (calendar year)	76,354	76,456	76,477	77,101	N/A

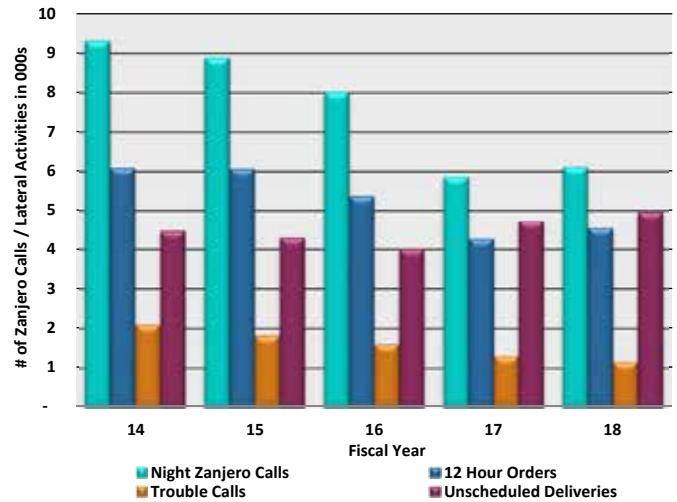


The first graph below reflects total calls received, number of gate/door entries facilitated, along with the number of dispatched/radio calls placed by Control annually. The second graph reflects various Zanjero calls and lateral activities that are responded to annually.

Control Room Calls / Activities

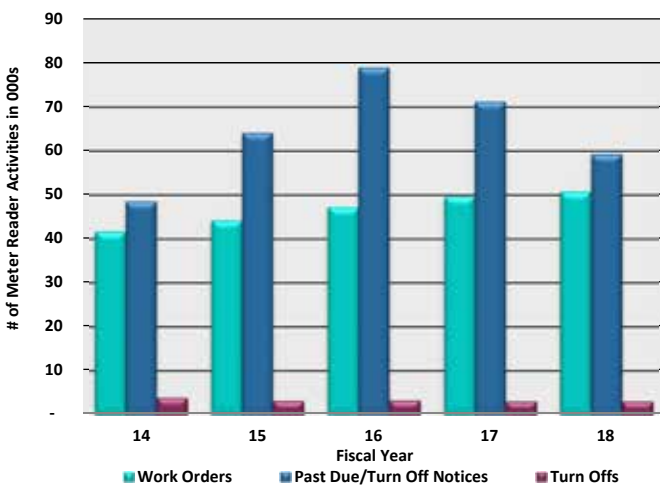


Zanjero Calls / Lateral Activities

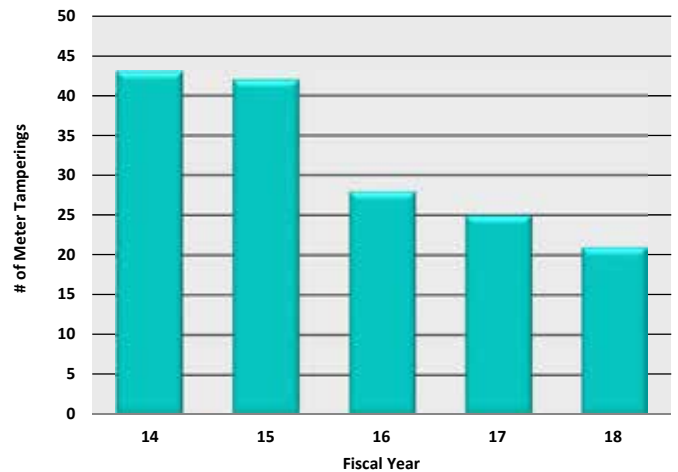


The following graph shows a five-year history of meter reader activities completed each fiscal year. The second graph depicts a five-year history of meter tampering. Meter tampering has continued to show a steady decline since 2013.

Meter Reader Activities



Meter Tamperings



Fiscal 2017-18 Accomplishments

Strategic Plan

- Awarded contract to complete an audit of all billing records in accordance with American Water Works Association (AWWA) guidelines (M36 Manual)
- Implemented Service Desk Plus, a customer correspondence management tool
- Developed informational Frequently Asked Questions (FAQ) and Do-it-Yourself videos and posted onto CVWD.org
- Completed draft of Canal Irrigation and Drainage System Rules and Regulations and forwarded to the Board of Directors for review and discussion

Administration

- Reduced delinquent accounts by 52%, turn-offs for nonpayment by 11%, multi-unit door hangers by 37% vs. fiscal 2016
- Streamlined the domestic water service application process, improving customer satisfaction, expediting the application process, and saving approximately .25 of an FTE
- Developed new procedures that proactively alert customers of high consumption, reducing lost water, saving money, and potentially reduce risk of damage
- Increased the financial assistance provided by CVWD's customer assistance program, Help2Others, from \$50 to \$100 per year and expanded outreach efforts, increasing participation by 546% vs. fiscal 2017
- Streamlined the annual reporting process by using SharePoint
- Coordinated the implementation and transition to CVWD's new customer payment portal, Paymentus
- Established an Adobe Sign workflow for all forms used to ensure proper and efficient routing
- Represented CVWD in the mediation and resolution of CVWD's lawsuit against Doxo for trademark infringement and managed implementation of settlement agreement that provides benefits to CVWD customers
- Coordinated a Service Department Superior training day to address a number of goals of the department including improving the billing exception reporting process, creating RAC and Master Account billing efficiencies, and reviewing Superior features regarding delinquent accounts

Control

- Implemented Everbridge, a mass notifications system
- 100% of Control Operators have obtained their Grade 1 Water Distribution Certification
- 100% of Supervisory Control Operators obtained training by field visits to other CVWD facilities
- Provided technical support the integrator and software programmer for the SCADA Mater Plan Project

Customer Billing

- Participated in the transition of new payment portal
- Improved the collection process for RAC with an active collection process, as well as implementing a process of placing liens and transferring delinquencies to the property taxes
- Completed suppressed account listing
- Established three months of shadow billing and tested the implementation of new sanitation rates
- Transitioned delinquency letters to InfoSend
- Participated on new Irrigation Rules & Regulations team to complete billing section of document
- Compiled a RAC billing efficiency spreadsheet to implement and track efficiencies
- Compiled a master account efficiency spreadsheet to implement and track efficiencies
- Created a zero consumption report to track and research accounts that show no consumption

Meter Readers

- Upgraded 28 direct read accounts to AMR meters due to being a traffic hazard
- Upgraded 532 direct read meters to AMR meters in North Shore (route 16) and Hot Mineral Spa
- Converted the high consumption checklist to an electronic form
- Met the established standards of 30 hours of training
- Gathered data on technology with emphasis on AMI, AMA, and Cellular
- Revised Meter Reader Handbook
- Revised the Meter Reader Report
- Created Job Safety Analysis (JSA)
- Collaborated with Operations on implementing and AMR replacement program

Continued on the following page

Fiscal 2017-18 Accomplishments

- Put on a Water Math Class for the Service Department
- Cross-trained Meter Reader staff with Meter Repair, Zanjeros, Customer Service, and Billing
- Cross-trained eight from Customer Service and five from Customer Billing
- Created “How to Videos” (How to Test a Meter for Accuracy, Flow Test a Meter, and Pulling a Meter for Tampering)
- Manually read 25% of AMR routes to ensure meter accuracy
- Completed zero consumption work orders

Customer Service

- Maintained service level goals
 - » Answered 90% of all Customer Service calls within 3 minutes
 - » Achieved an average handling time of 3 minutes vs. a 4 minute goal
 - » Achieved an abandon rate of 2% exceeding goal of 5%
- Supported the Paymentus implementation and internal training
- Eight staff members received their AWWA Customer Service Certification
- Eliminated Sunday and holiday phone coverage for irrigation customers, providing for increased coverage during the week when call volume is higher

Zanjero

- Implemented a new Zanjero scheduling process
- 80% of the Run Zanjeros have been fully trained in the operation of the Thomas E. Levy Replenishment Facility
- 20% of Run Zanjeros and 100% of Senior Zanjeros have cross-trained in the Control Room
- 100% of Zanjeros have cross-trained with the Meter Readers
- Initiated training all Zanjero staff on crop report data gathering process
- Trained all Zanjeros on the use of GIS Collector Application to assist with Asset Management Program
- Trained all Zanjeros on creating Sungard work orders for meter repairs, valve repairs/replacement, and leak repairs



Zanjero checking the reading on a flow meter at a CVWD delivery point

Fiscal 2018-19 Goals

Strategic Plan

- Implement Advanced Metering Infrastructure (AMI) pilot metering project
- Create an implementation plan to improve canal water ordering and billing

Administration

- Develop policies and procedures to comply with the new legal requirements to turn customers off for non-payment if Senate Bill 998 passes
- Develop Customer Service Resource/Training Manual
- Update Billing and Collection Procedures to ensure domestic monthly service charges are collected consistently on all domestic metered properties
- Coordinate implementation of an Advanced Metering Infrastructure (AMI) pilot program with Operations
- Develop procedures to increase efficiencies on how CVWD permits, monitors, and terminates Domestic Temporary Service Connections
- Ensure Customer Service is fully Payment Card Industry (PCI) compliant
- Launch an internal Adobe Sign training program that is customized to the Service Division

Control

- Have all new Control Operator Trainees obtain Grade 1 Water Distribution Certification within one-year of hire
- Take day shift Control Room Operators on field visits
- Continue developing training manual and assessment
- Provide technical input to the SCADA Integrator and Programmer
- Train all Control Operators on the functionality of Wonderware software program

Customer Billing

- Complete Customer Billing Audit for FY 2017-18 with a higher score than required for the state mandated water audit
- Implement the findings of the Customer Billing Audit
- Support strategic initiative to implement an advanced metering infrastructure pilot program by ensuring data integrity related to customer billing
- Improve check remittance/accounts receivable processing
- Work with IS to get Riverside County parcel ownership data updated in Superion
- Revise the Customer Billing Weekly report and reporting metrics

Meter Readers

- Upgrade the last 585 direct read meters to AMR meters in North Shore (routes 14 & 17)
- Read 25% of our AMR routes manually to ensure accuracy and meters are functioning correctly
- Provide recurring annual specialized training (meter testing, dog training, venomous snakes, traffic control etc.)
- Continue creating Job Hazard Analysis
- Crosstrain all Meter Readers 1, 2 and Field Representatives with Customer Service, Zanjeros, and Service Workers
- Research new Meter Reading Handheld Technology
- Collaborate with Operations on implementation of an AMR replacement program
- Conduct research with a goal to implement an internal meter bench test facility
- Implement the Strategic Initiative AMI Pilot Program
- Continue to identify Condos (code 82) and vacant lot (code 13)
- Create "How to videos" (How to Perform a HI Consumption, How to Data Log an AMR meter, etc.)

Customer Service

- Achieve service level goals
- Transfer existing reference documents and procedures to SharePoint's knowledge management system
- Complete the implementation of ServiceDesk Plus tracking system to manage incoming correspondence from customers

Zanjero

- Develop and implement a new Zanjero training program to operate laterals and meters on a consistent basis
- Train balance of Zanjero staff in the operation of the Thomas E. Levy Replenishment Facility
- Train balance of Zanjero staff on crop report data gathering process
- Develop the needs assessment for a new online water ordering and billing software tool

Department Financial Trend - Service

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Budget FY 2019	Budget Change	% Change
Expenses by Object						
Salaries & Benefits	8,939,000	9,352,000	9,201,000	9,760,000	408,000	4.4
Outside Labor	60,000	67,000	77,000	59,000	(8,000)	(11.9)
Professional Development	48,000	93,000	65,000	100,000	7,000	7.5
Collection Cost	-	-	-	100,000	100,000	-
Utilities	1,110,000	1,119,000	896,000	1,115,000	(4,000)	(0.4)
Materials & Supplies	586,000	702,000	645,000	774,000	72,000	10.3
Motorpool	337,000	374,000	339,000	368,000	(6,000)	(1.6)
Contract Services	867,000	1,059,000	933,000	1,278,000	219,000	20.7
Safety	9,000	10,000	8,000	10,000	-	-
Purchased Water	2,590,000	3,881,000	3,600,000	3,881,000	-	-
Miscellaneous Expense	56,000	75,000	50,000	102,000	27,000	36.0
Capital Outlay	-	-	-	50,000	50,000	-
Total	14,602,000	16,732,000	15,814,000	17,597,000	865,000	5.2%
Expenses by Division						
Administration	597,000	684,000	770,000	881,000	197,000	28.8
Customer Service	1,711,000	1,887,000	1,758,000	2,016,000	129,000	6.8
Zanjeros	6,190,000	7,610,000	7,098,000	7,613,000	3,000	-
Control	1,155,000	1,265,000	1,238,000	1,310,000	45,000	3.6
Meter Reading	2,424,000	2,455,000	2,459,000	2,720,000	265,000	10.8
Customer Billing	2,525,000	2,831,000	2,491,000	3,057,000	226,000	8.0
Total	14,602,000	16,732,000	15,814,000	17,597,000	865,000	5.2%
Expenses by Fund						
Domestic Water	6,299,000	6,817,000	6,521,000	7,602,000	785,000	11.5
Canal Water	3,035,000	3,259,000	3,197,000	3,341,000	82,000	2.5
Sanitation	673,000	713,000	681,000	635,000	(78,000)	(10.9)
Stormwater	11,000	13,000	12,000	13,000	-	-
Nonpotable Water	49,000	55,000	52,000	58,000	3,000	5.5
West Whitewater Replenishment	174,000	176,000	180,000	149,000	(27,000)	(15.3)
Mission Creek Replenishment	1,000	14,000	-	7,000	(7,000)	(50.0)
East Whitewater Replenishment	4,360,000	5,685,000	5,171,000	5,792,000	107,000	1.9
Total	14,602,000	16,732,000	15,814,000	17,597,000	865,000	5.2%



FY 2019 Approved Supplemental Requests

Fund	Dept./ Div.	Elem./ Object	Description	Salaries & Benefits	Supplies & Services	Capital	Total Request	Nonrecurring
803	6005	2001	Dues & Memberships	-	746	-	746	746
803	6005	2010	Certifications & Renewals	-	1,890	-	1,890	1,890
803	6005	4206	Computer Software-ExecuTime Advanced	-	18,975	-	18,975	18,975
803	6005	5599	Contract Services-Adobe EchoSign	-	1,235	-	1,235	-
803	6005	Various	Offsets	-	1,658	-	1,658	-
803	6105	4206	Review Current Technology Platforms	-	50,000	-	50,000	50,000
803	6105	4299	Materials & Supplies-Other-CVWD Anniversary Books	-	30,000	-	30,000	30,000
803	6105	7201	Equipment Leases	-	1,043	-	1,043	-
803	6105	Various	Offsets	-	(608)	-	(608)	-
803	6205	2004	Travel & Per Diem	-	2,065	-	2,065	-
803	6205	4297	Small Tools & Equipment	-	4,299	-	4,299	4,299
803	6205	5599	Contract Services-Pest Removal-Portable Toilet Service	-	497	-	497	497
803	6205	8002	Isolation Valve for Thomas E. Levy Facility	-	50,000	-	50,000	50,000
803	6205	4801	Equipment Usage	-	(3,764)	-	(3,764)	-
803	6205	4803	Insurance	-	(906)	-	(906)	-
803	6205	Various	Offsets	-	110	-	110	-
803	6305	1003	Overtime	1,233	-	-	1,233	1,233
803	6305	Various	Offsets	-	398	-	398	-
535	6405	1003	Overtime	5,000	-	-	5,000	5,000
535	6405	2005	Training	-	1,078	-	1,078	-
803	6405	4803	Insurance	-	(1,172)	-	(1,172)	-
535	6405	5599	Contract Services-AMI Pilot Project	-	100,000	-	100,000	100,000
535	6405	5599	Contract Services-Handheld Device Contract	-	675	-	675	-
535	6405	Various	Offsets	-	(228)	-	(228)	-
803	6905	1801	Temporary Agency	-	12,800	-	12,800	12,800
803	6905	2599	Professional Services-Consult to Review Legacy System	-	100,000	-	100,000	100,000
803	6905	4203	Mailing Cost / Postage	-	39,180	-	39,180	-
803	6905	5535	Billing Outsourcing	-	18,238	-	18,238	-
803	6905	5538	Credit Card Fees	-	80,000	-	80,000	-
803	6905	5599	Contract Services-Outsourcing Scanning & Check Processing	-	17,970	-	17,970	17,970
803	6905	7210	Bad Debt-Cocopah	-	26,210	-	26,210	26,210
803	6905	Various	Offsets	-	(415)	-	(415)	-
Service Total				6,233	551,974	-	558,207	419,620



Capital Improvements



What are Capital Improvements?

Capital improvements include the purchase, construction, replacement, addition, or major repair of public facilities, infrastructure, and equipment. The selection and evaluation of capital projects involves analysis of District requirements, speculation on growth, the ability to make estimates, and the consideration of historical perspectives. A “capital project” has a monetary value of at least \$25,000, has a useful life of more than a year, and results in the creation or revitalization of a fixed asset. A capital project is usually relatively large compared to other “capital outlay” items in the annual operating budget. Vehicles and heavy equipment are considered capital projects by the District for the purpose of financial planning.

Capital Asset Policy

The Coachella Valley Water District has a significant investment in a variety of capital assets, which are used to provide services to customers. Per the District’s Capital Asset Policy, an asset costing \$10,000 or more, and with a useful life of two years or more is depreciated for financial accounting purposes. A capital asset acquired with federal grant funds is capitalized if it has a cost greater than \$5,000.

What is the Capital Improvement Plan (CIP)?

The CIP is the multiyear plan used to identify and coordinate public facility and equipment needs in a way that maximizes the return to the ratepayers. Advance planning of all District projects helps the Board, staff, and public make choices based on rational decision-making, rather than reacting to events as they occur. The CIP represents improvements or replacements that are viewed as critical and have a funding plan. The system of CIP management is important because: (1) the consequences of investments in capital improvements extend far into the future; (2) decisions to invest are often irreversible; (3) such decisions significantly influence a community’s ability to grow and prosper.

The CIP Process

The development and update of the CIP is an ongoing activity. It is part of the overall budgeting process, since current year capital improvements are implemented through adoption of the annual budget. Specific activities in the process are:

Establishing Timetables, Goals, and Objectives: At the onset of the budgeting process, the CIP update begins with formal budget planning discussions between management, department heads, and the Board of Directors. Timetables are set that extend through development and final adoption of the budget. District goals and objectives are reviewed to ensure that they are being met through the budget cycle.

Taking Inventory and Developing Proposals: Staff gathers information about the District’s capital facilities and equipment in order to assess the condition of each. Staff carefully considers construction, repair, replacement, and additions. From there, a list of proposed projects and equipment is developed.

Conducting Financial Analysis: Finance staff conducts financial analysis of historic and projected revenues and expenses in order to estimate the District’s cash flow and long-term financial condition. Capital financing alternatives are identified and recommendations are prepared to match the type of funding most appropriate for specific capital improvements.

How are Capital Improvements Funded?

Various funding sources are available, including pay-as-you-go, reimbursements, grants, debt, Sanitation Capacity Charges (SCC), and Water System Backup Facility Charges (WSBFC). Each project is reviewed to determine the appropriate financing for it.

Pay-as-you-go: To the extent that there is available cash, the District generally funds capital projects on a pay-as-you-go basis.

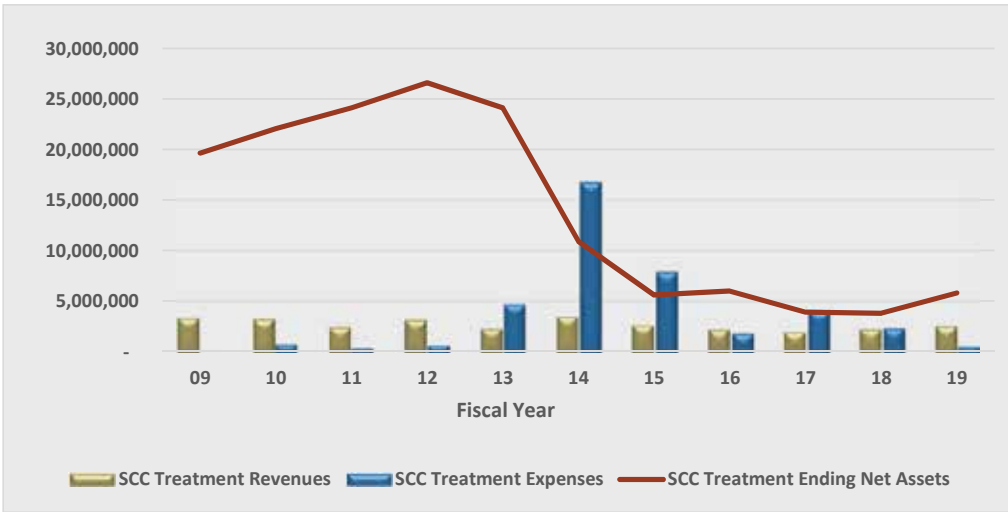
Reimbursements: The District often enters into agreements with other entities whereby certain projects will be built by CVWD with the understanding that all, or a portion of the project, will be reimbursed by that entity.

Grants: The District is eligible for grants from various state and federal agencies. Grant reimbursements are based on incurred eligible capital project expenses.

Debt: With Board approval, CVWD will obtain long-term borrowing to fund capital improvements that cannot be financed from current revenues and/or reserves.

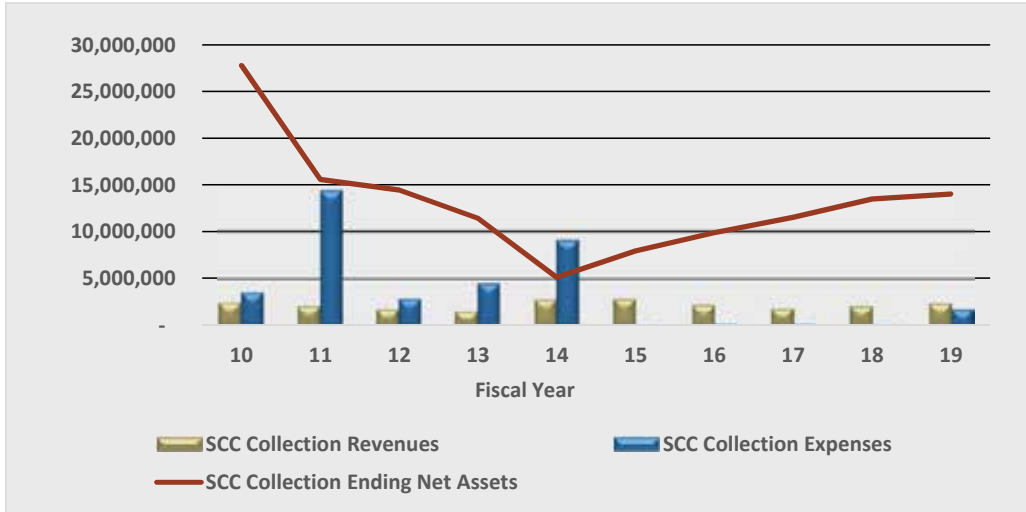
Sanitation Capacity Charges: The District assesses SCC-Collection and SCC-Treatment fees on all new development, redevelopment projects, connections to existing residential units, and upgrades of existing commercial units within the District’s sanitation service area. These restricted funds can only be used for constructing backbone facilities for collection and treatment of wastewater to provide additional sanitation service. The following charts show actual fiscal 2010 through 2018 and projected 2019 SCC-Treatment and SCC-Collection revenues, expenses, and ending net assets.

**SCC Treatment Actual Revenues, Expenses & Ending Net Assets
Ten Year History**



SCC-Treatment expenses projected for 2019 are considerably lower than last year. This reduction in expenses will have a significant increase in the ending net assets.

**SCC Collection Actual Revenues, Expenses & Ending Net Assets
Ten Year History**



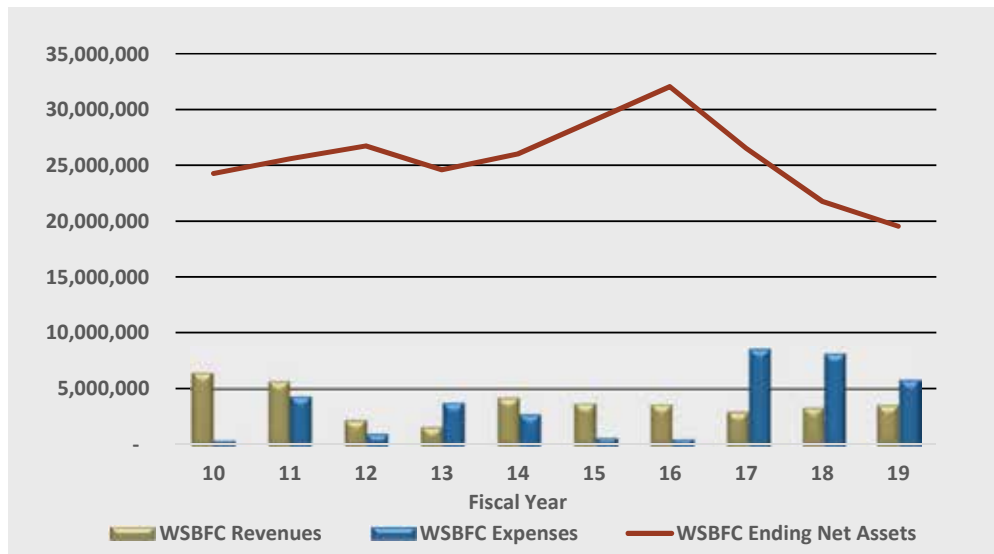
SCC-Collection expenses for 2019 are projected to be 94% higher than last year due to the Lift Station upgrade at Burr Street. Revenues are still expected to exceed expenses which will have minimal impact to the ending net assets.



2019 Capital Improvements

Water System Backup Facility Charges: The District assesses the WSBFC on all new development and redevelopment projects within the District’s domestic water service area. These restricted funds can only be used for constructing backup water facilities to ensure domestic water availability for new development projects. Backup facilities include wells, treatment facilities, booster stations, reservoirs, and large diameter transmission mains. Projected WSBFC revenues for 2019 are approximately 62% of projected expenses, which will decrease the ending net assets as shown in the graph below.

**WSBFC Actual Revenues, Expenses & Ending Net Assets
Ten Year History**



The Five-Year CIP

The 2019-2023 Capital Improvement Plan amounts to over \$619 million. Revenue sources include cash, restricted developer fees, grants, reimbursements from other agencies, and a State Revolving Fund loan.

Five-Year Capital Improvement Plan

Fund	Budget	Projected				Total
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Domestic Water	42,246,000	44,835,000	26,050,000	23,795,000	17,979,000	154,905,000
Canal Water	12,544,000	10,238,000	10,241,000	3,646,000	3,772,000	40,441,000
Sanitation	24,512,000	47,810,000	50,761,000	47,147,000	37,407,000	207,637,000
Stormwater	20,001,000	43,223,000	39,401,000	38,196,000	12,182,000	153,003,000
West Whitewater R	8,999,000	9,294,000	631,000	1,681,000	18,204,000	38,809,000
East Whitewater Re	8,357,000	242,000	1,201,000	21,000	44,000	9,865,000
Motorpool	4,588,000	2,388,000	2,355,000	2,210,000	2,829,000	14,370,000
Total Five-Year CIP	121,247,000	158,030,000	130,640,000	116,696,000	92,417,000	619,030,000



Domestic Water projects total approximately \$154.9 million over the next five fiscal years. The focus for the Domestic Water Fund includes \$16 million in reservoir construction and rehabilitation, approximately \$15.6 million in booster station upgrades, \$101.6 million in water main improvements, and \$7.8 million in well drilling and upgrades. The General District CIP will have \$13.9 million allocated from the Domestic Water Fund. Over \$87 million of the five-year CIP budget will be spent over the next 2 years. Funding will be provided by cash, Water System Backup Facility Charges, grants, and loans.

Canal Water projects amount to over \$40.4 million over the next five fiscal years. Canal projects include a pump station structure replacement and an irrigation system expansion for \$5.3 million, irrigation lateral replacements and improvements for \$27 million, and drain replacement projects. In addition, the Canal Water Fund's share of General District CIP allocation is approximately \$7.5 million. Funding will be provided by cash and grants.

Sanitation projects total more than \$207.6 million over the next five fiscal years. This amount includes approximately \$58.2 million for Water Reclamation Plant (WRP) 10 treatment upgrades, \$9.1 million for WRP 7, approximately \$20.6 million for WRP 4, and \$2.7 million for WRP 2. In addition, there is approximately \$30.6 million in collection system and lift station upgrades. Nonpotable water pipeline connections totaling \$77.9 million will be paid by the Sanitation Fund. Sanitation projects will be funded with cash, and Sanitation Capacity Charge fees. A collection system project, in a disadvantaged community in the amount of approximately \$2.7 million, will be funded with grants. The Sanitation Fund's share of General District CIP allocation is approximately \$5.8 million over the next five fiscal years.

Stormwater projects total approximately \$153 million over the next five fiscal years. Over \$1 million is allocated to General District CIP. Projects will be funded using cash.

Replenishment projects amount to more than \$48.6 million over the next five fiscal years. Approximately \$38.8 million of this amount is budgeted for West Whitewater Replenishment Fund, and approximately \$9.8 million for the East Whitewater Replenishment Fund. Funding will be provided from each replenishment fund's cash.

Motorpool projects amount to almost \$14.4 million for the next five fiscal years, and consist of vehicle and other rolling stock replacements. All funding will be from cash from the appropriate enterprise fund.

The CIP Impact

Impact of Capital Investments on Debt Service

Prior to fiscal 2018, the District did not have long-term debt. Therefore, the CIP did not have an impact on the operating budget associated with debt. CVWD executed a \$26.7 million Drinking Water State Revolving Fund loan from the State Water Resources Control Board. The loan will fund the construction of the Transmission Main, Phase 2 - Highway 86 project. The loan carries a fixed 1.8% interest rate for a term of 30 years.

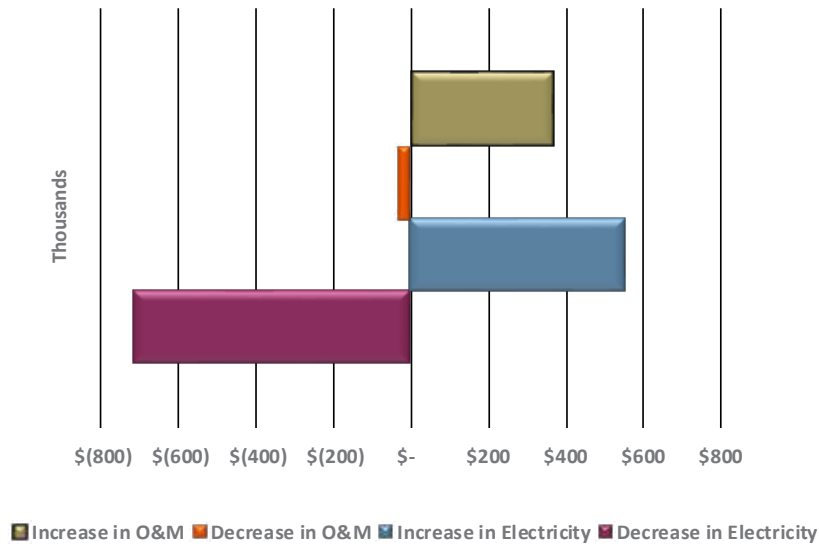
With Board approval, CVWD will continue to obtain long-term borrowing for capital improvements that cannot be financed from current revenues and/or reserves.

Impact of Capital Investments on Operating Budget

Capital improvements have financial, as well as nonfinancial impacts on the annual operating budget. Once operational, some capital improvements may result in additional annual operating and maintenance, and/or utility costs; other capital improvements may result in operating and maintenance, and/or utility cost reductions. Along with financial impacts, whether positive or negative, some capital improvements have regulatory impacts on the District’s operations such as: compliance with state and federal water quality regulations, securing of water storage capacity, maximizing waste water collection capacity, odor control, eliminating the potential of Clean Water Act fines, and others.

The chart below shows the potential financial impact of capital improvements on CVWD’s annual operating budget.

Financial Impact of CIP on Operating Budget
Net: \$174,140



Please note: The values shown in the chart above are estimates, and are expected to be in effect once all of the projects included in the five-year CIP are complete and operational. These values may change depending on electricity rates, labor costs, and/or parts or other costs associated with operating and maintenance.

Significant Capital Improvement Projects

The District's five-year CIP includes several significant capital improvement projects. These are projects that have considerable impact on the five-year forecast, and/or rarely occur. For detailed information on each of the projects listed below, please refer to the corresponding funds in this chapter.

- Coachella Valley Stormwater Channel Improvements - Avenue 54 to Thermal Drop Structure – Stormwater
- Stormwater Master Plan, Phase 1 – North Cathedral City - Stormwater
- Flood Control System - North Indio - Stormwater
- Ground Water Replenishment Facility - Palm Desert - Replenishment
- Headwork Improvements – WRP 10 – Sanitation
- Improvements - Plant Processes - WRP 4 – Sanitation
- Secondary Effluent Pump Station and Storage Ponds – WRP 10 - Sanitation
- Water Main Replacement, Phase 1 & 2 - Sun City - Domestic
- Transmission Main Construction, Phase 2 – Avenue 66 – Domestic
- Coachella Valley Stormwater Channel Bank Protection – Avenue 62 to Avenue 64 - Stormwater

Fiscal 2019 Capital Improvement Budget (CIB)

The fiscal 2019 Capital Improvement Budget is integrated with the operating budget, and amounts to approximately \$121.2 million. Included in this amount is approximately \$3.5 million in District labor that will be capitalized with the projects. Please note: The Salaries & Benefits line item in the Operating Budget has been reduced by this amount. Fiscal 2019 capital improvements consist of projects in the District's enterprise funds, and the Motorpool Internal Service Fund. All projects are accounted for and funded by each individual fund.

For fiscal 2019, the District plans to spend over \$94.8 million of its cash. Funding from SCC-Collection and SCC-Treatment are budgeted at \$1.8 million and \$550,000, respectively. Funding from WSBFC fees for fiscal 2019 amounts to approximately \$5.7 million; grants are over \$6.5 million; and an SRF loan and other debt proceeds to approximately \$11.7 million.

The following projects impact the fiscal 2019 Capital Improvement Budget since the majority of expenses will be incurred in 2019.

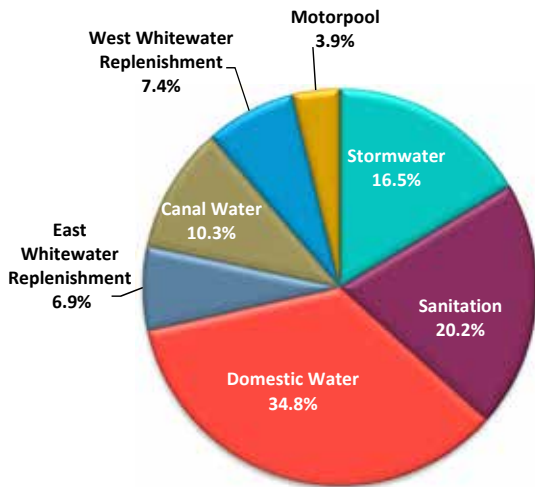
- Palm Desert Facility - Auto Shop Structure Carport Construction - Districtwide
- Palm Desert Facility - Water Quality Laboratory and Offices Construction – Districtwide
- Irrigation Lateral 99.8-05.51 Improvement, Phase 2 & 3 - Canal
- Irrigation Distribution Improvements, La Quinta – Replenishment
- Transmission Main Construction, Phase 2 - Highway 86 - Domestic
- Infrastructure Improvements - Sky Mountain Pressure Zone - Domestic

The table and charts on the following page show planned improvements by fund and funding sources for fiscal 2019.

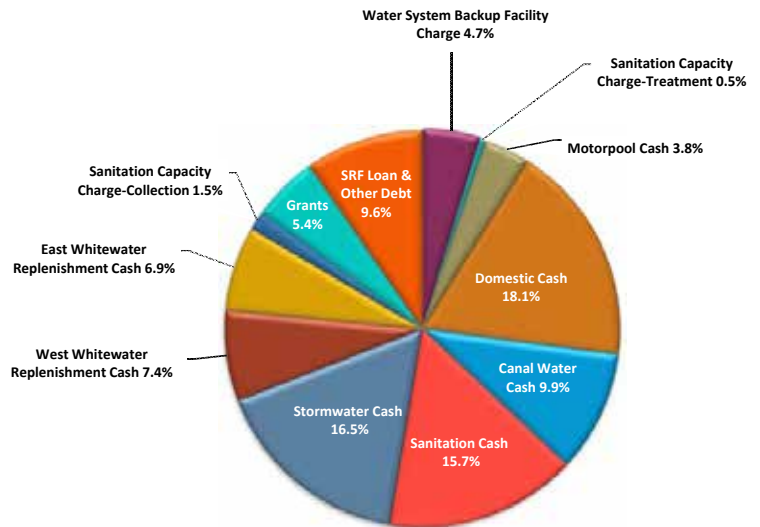
Fiscal 2019 Capital Improvement Budget - Projects by Fund

Fund	Funding Sources							Total
	Cash Funded	Grants	Reimbursements	SRF Loan & Other Debt	Restricted Reserves			
					WSBFC	SCC Treatment	SCC Collection	
Domestic Water	21,880,000	2,935,000	-	11,700,000	5,731,000	-	-	42,246,000
Canal Water	12,038,000	506,000	-	-	-	-	-	12,544,000
Sanitation	19,000,000	3,100,000	-	-	-	550,000	1,862,000	24,512,000
Stormwater	20,002,000	-	-	-	-	-	-	20,002,000
West Whitewater Replenishment	8,999,000	-	-	-	-	-	-	8,999,000
East Whitewater Replenishment	8,357,000	-	-	-	-	-	-	8,357,000
Motorpool	4,587,000	-	-	-	-	-	-	4,587,000
Total Capital Improvement Budget	94,863,000	6,541,000	-	11,700,000	5,731,000	550,000	1,862,000	121,247,000

Capital Improvement Projects by Fund
\$ 121,247,000



Capital Improvement Projects by Source
\$ 121,247,000



Grants

CVWD has been participating in grant programs for several years and will continue to do so. Grants provide a valuable funding source to help finance eligible projects at the District. The money received does not have to be paid back to the grantor agency. It is important to remember that grants are very competitive. A lot of time and preparation are required to find grant opportunities that fit within the grantor’s parameters, plan a project(s), and then develop a winning proposal.

There are numerous opportunities available to obtain grant funding. The District is eligible for grants from various state and federal agencies: State Water Resources Control Board, United States Department of Agriculture, United States Bureau of Reclamation, California Department of Water Resources, and Federal Emergency Management Agency. Grant reimbursements are based on incurred eligible capital project expenses. Grant revenues for fiscal 2019 are projected to be over \$6.5 million and are summarized in the table below.

Grant Revenues

Granting Agency	Fund	Purpose of Grant	FY 2019 Budget
State Water Resources Control Board	Domestic	Connect Thermal Mutual Water Company to CVWD's domestic water distribution system, which will improve water quality, reliability, and supply for a small private community.	1,200,000
State Water Resources Control Board	Domestic	Reimburse Coachella Valley Unified School District (Westside Elementary School) for upsizing 1,200 feet of a new domestic water transmission main, from 12-inch to 18-inch diameter ductile iron pipe.	900,000
State Water Resources Control Board	Domestic	Connect Galindo Mobile Home Park water systems to CVWD's domestic water distribution system. The project will provide safe domestic water and fire protection service to this small disadvantaged community.	75,000
Application pending	Domestic	Construction of a 30-inch transmission main along Avenue 66 between Highway 86 and Dale Kiler Road near Mecca. This is the first phase to provide a secondary water supply to Mecca and Eastern Coachella Valley.	310,160
State Water Resources Control Board	Domestic	Identify, prioritize, and investigate potential small disadvantage communities for consolidation into CVWD's Cove Communities water system.	450,000
United States Department of Agriculture	Sanitation	Construction of a gravity sewer collection system and lift station, which will provide reliable centralized sewer service to a mobile home park and other small communities.	3,100,000
United States Bureau of Reclamation	Irrigation	Install approximately 18,500 feet of pipe and 11 concrete baffle stands to increase efficiency of the delivery system and eliminate surges. Install 21 new meters and SCADA system to provide remote flow reading and better manage water deliveries.	506,000
Total Grant Funding			6,541,160



The District's iconic water tower at the offices in Coachella

Districtwide



2019 Capital Improvements - Districtwide

Districtwide Projects

Planned Districtwide projects for fiscal 2019 amount to over \$14.4 million. The projects below are not specific to any fund. The expenses are allocated to the following enterprise funds: Domestic Water, Canal Water, Sanitation, Stormwater, East Whitewater Replenishment, West Whitewater Replenishment, and Motorpool.

Capital Improvement Budget - Districtwide

	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Districtwide - Motorpool							
Auto Shop Structure Carport Construction- Palm Desert Facility							
	GD1604	1,900,000	-	-	-	-	1,900,000
Subtotal Districtwide with Motorpool		1,900,000	-	-	-	-	1,900,000
Districtwide - Allocated							
Administrative Building Variable Air Volume Replacement- Coachella Facility							
	GD1903	250,000	250,000	-	-	-	500,000
Critical Support Services Building- Palm Desert Facility							
	GD1412	7,120,000	-	-	-	-	7,120,000
Critical Support Services Building Trunk Radio System and Electronic Equipment- Palm Desert Facility							
	GD1901	1,211,000	-	-	-	-	1,211,000
Critical Support Services Building System Control and Information Systems- Palm Desert Facility							
	GD1506	723,545	-	-	-	-	723,545
Electronic Records Management Implementation Generator and Switchgear Upgrade- Coachella Facility							
	GD1802	525,000	-	-	-	-	525,000
Storage Area Network Upgrade							
	GD1902	358,000	-	-	-	-	358,000
Supervisory Control and Data Acquisition Master Plan and System Replacement							
	GD1301	3,500,000	4,693,400	3,052,000	2,120,600	4,408,000	17,774,000
Subtotal Districtwide without Motorpool		14,487,545	5,593,400	3,052,000	2,120,600	4,408,000	29,661,545
Total Districtwide		16,387,545	5,593,400	3,052,000	2,120,600	4,408,000	31,561,545



Project ID: GD1604								
Auto Shop Structure Carport Construction - Palm Desert Facility								
Project Description & Justification	Construct a new and modern Auto Shop Concrete Masonry Unit (CMU) building including Compressed Natural Gas (CNG) unit in Palm Desert. The Auto Shop in Palm Desert is in need of additional space to accommodate additional workspace to work on CVWD vehicles.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	88,000	80,000	1,900,000	-	-	-	-	2,068,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Nonfinancial Impact								
The construction of Concrete Masonry Unit (CMU) building at the Auto Shop in Palm Desert will provide additional space to work on CVWD vehicles								

Project ID: GD1903								
Administrative Building Variable Air Volume Replacement - Coachella Facility								
Project Description & Justification	The existing air distribution system in the Coachella Administration building is an antiquated pneumatic system and has had numerous failures due to leaks in recent years. The pneumatic system uses air pressure to control and regulate the conditioned air supplied to various zones through variable air volume (VAV) and due to their age, it has become difficult to properly balance air flow and it is unable to integrate into the Energy Management System (EMS). Since the existing VAV boxes are no longer compatible with current controllers on the market, they must be replaced with new valve equipment which will integrate with the new EMS implementation.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	250,000	250,000	-	-	-	500,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2019	2020	Construction			
Other Financial Impact								
This is a replacement and will have a small decrease in costs related to existing preventative maintenance. It will also create efficiencies due to the connection and implementation of the EMS automation.								

2019 Capital Improvements - Districtwide

Project ID: GD1412

Palm Desert Critical Support Services Building

Project Description & Justification	This ongoing project is to construct a new Water Quality Laboratory (WQL), Emergency Operations Center, SCADA Control facility, server/radio room, and office space at the Palm Desert campus as part of the Critical Support Services Building project. The project will provide efficient work and office space for system control staff, information systems staff, and office space for the Water Quality, Clean Water, Water Resources, Source Control, and Environmental staff. The Emergency Operations Center will also be relocated within this building from the Coachella campus. This project will ensure that these important functions remain in service following a major earthquake in order to help serve the District's customers during an emergency.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	831,000	6,349,000	7,120,000	-	-	-	-	14,300,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	100,000	Start	Complete	Phase as of 2019			
			2013	2019	Construction			
Nonfinancial Impact								
The existing WQL consists of laboratory work benches, equipment, and work space for 5 staff members and is located within a 3,300 square-foot masonry building that was constructed on the west side of the Coachella Warehouse building about 42 years ago. The project will provide updated laboratory equipment, work space, and efficient modular office space. The new building will be designed to perform at an Immediate Occupancy Level of Service to enable the laboratory to provide critical services after a major earthquake event.								



Critical Support Services Building under construction

Project ID: GD1901

Palm Desert Critical Support Service Building Trunk Radio System and Electronic Equipment

Project Description & Justification	In order to support voice communications from the Palm Desert and Coachella control rooms with multiple operator consoles that provide redundancy with the current Motorola Astro 25 800 megahertz trunking radio system, the system will need to be upgraded to support the two control rooms. As the current Motorola system is still supported, the system cannot be upgraded because of it being legacy equipment. This project includes the installation of the equipment that is not included in the building construction (cameras, digital video recorder, telephones, and cyber locks).							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	1,211,000	-	-	-	-	1,211,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	80,000	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Nonfinancial Impact								
Software application updates to keep systems current and allow CVWD to take advantage of technology.								

Project ID: GD1506

System Control and Information Systems Building-Palm Desert

Project Description & Justification	The new Critical Facilities Building in Palm Desert will require some additional technology upfitting, following the completion of construction, to bring the building into full operational readiness. Upfitting is required for the Emergency Operations Center (EOC)/Technology Education Center(TEC), the Lab, Conference Rooms, Main Distribution Frame (MDF)/Intermediate Distribution Frame (IDF) locations and the Data Center. Upfitting of the SCADA Control Room is addressed in the SCADA Master Plan. Much of the required technology infrastructure, cable plant, power, computer room air conditioning (CRAC) etc., is incorporated in the construction contract. This project covers additional miscellaneous technology components such as projectors, video conferencing units, large format monitors, video switching, Lab SCADA, power distribution, PCs for the EOC/TEC, data center racks, base isolation, patch cables and other necessary items.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	10,000	-	723,545	-	-	-	-	733,545
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Other Financial Impact								
The construction contract for the Critical Support Services Building in Palm Desert provides for some build-out of technology infrastructures, such as the 2nd Floor data center, IDF and cable plant. In addition, the SCADA Master Plan will fund some components of the SCADA Control Room and computing resources for the new SCADA System. However, some additional technology components will be needed that are not covered by the construction contract or other CIP initiatives. On-going costs related to these miscellaneous technology components will be addressed through operational expenses in future years but are expected to have minimal impact on overall IT operating expenses.								
Nonfinancial Impact								
The Critical Support Services Building will require up fitting with some additional technology components following the completion of the construction phase and handover to CVWD. These technology components will bring a number of specific spaces up to the required level of operational readiness. The areas for up fitting include: the EOC/TEC, the Lab, IDF and MDF locations, the 2nd Floor Data Center and Conference Rooms. The required components include large format video screens, video switching components, projectors, video conference cameras, Lab SCADA, Data Center racks, isobase (base isolation), power distribution, cable management and patch cables, and a number of personal computers for the EOC.								

2019 Capital Improvements - Districtwide

Project ID: GD1801								
Electronic Records Management Implementation								
Project Description & Justification	Complete the existing Enterprise Content Management (ECM) platforms upgrade to the latest supported versions. Implement enhancements to the ECM environment to add Enterprise Records Manager, migrate the database from Oracle to MS SQL, and to upgrade the Capture (Kofax) server from version 9 to the latest Kofax Capture version available. This upgrade will include the re-organization and development of classes to archive the District's records as required by the recently adopted Records Retention Policy. In addition, this project will include development and implementation of workflows to manage email, invoices, network files, and other critical District processes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	350,000	800,000	650,000	-	-	-	1,800,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2020	Other			

Project ID: GD1802								
Generator and Switchgear Upgrade- Coachella Facility								
Project Description & Justification	The Project will replace a failed 400 kilowatt standby generator and the existing switchgear and automatic transfer switch (ATS) with a new 750 kilowatt standby generator, switchgear, and appurtenances at Coachella Campus. The scope of work also includes the relocation of the generator and electrical transformer away from the Coachella Campus Buildings.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	4,000	525,000	-	-	-	-	529,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2020	Construction			
Annual Operating Cost Impact								
The aging switchgear and failed generator shall be replaced by a new ones, of current technology and vintage. This should reduce the maintenance cost considerably.								



Project ID: GD1902								
Storage Area Network Upgrade								
Project Description & Justification	The District has two core Storage Area Networks (SAN) located in its Coachella and Palm Desert Data Centers. The SAN support the very core of the District's Computer Infrastructure, they provide a platform for servers and data storage, they are highly redundant and serve a critical role in the day to day business of the District. Core components of the SAN are reaching the end of their useful life and will no longer be supported by the vendor. This project will secure funding to upgrade the old components and allow the District to further capitalize on its investment in the SAN.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	358,000	-	-	-	-	358,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment	SCC Collection		
			0%	0%	0%	0%		
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2019	2019	Planning			
Annual Operating Cost Impact								
Ongoing Support and Maintenance, already part of the Information Systems budget.								

Project ID: GD1301								
Supervisory Control and Data Acquisition (SCADA) Master Plan and System Replacement								
Project Description & Justification	The initial phase of this project reviewed and evaluated the existing Supervisory Control and Data Acquisition (SCADA) System in order to develop a Master Plan for replacement of the aging and outdated software and equipment with a new and modern SCADA System. The SCADA System Master Plan has created a program of 11 projects to undertake the implementation of the plan. CVWD continuously monitors and operates facilities remotely from a single SCADA Control Room but much of the current SCADA System is obsolete. The modernization and upgrade of the SCADA System will allow CVWD staff to operate, monitor, and control facilities more efficiently with up-to-date hardware and software. The new system will also increase security and avoid potential system failures. The upgrade will also allow for easier access to stored information that can be used for "beyond-SCADA" uses such as asset management or engineering design.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	909,000	3,368,000	3,500,000	4,693,400	3,052,000	2,120,600	4,408,000	22,051,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment	SCC Collection		
			0%	0%	0%	0%		
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2015	2023	Design			
Other Financial Impact								
The on-going costs for operation, support and maintenance of the new SCADA system are expected, in the long-term, to be equivalent to the existing SCADA system. While the system components for the new system will be more powerful than the old components, they will also be more energy efficient. In addition, labor saving realized through increased automation will likely result in improved service rather than reduced cost. As a component of the Program, opportunities for grant funding will be explored, which may reduce the direct cost of the Program.								
Nonfinancial Impact								
CVWD relies heavily on operating its facilities remotely. These facilities are operated, monitored, and controlled from a single SCADA Control Room. The current SCADA System is aging and components are becoming obsolete. The SCADA System Master Plan details a program of 11 initiatives that will replace the aging and outdated SCADA system with a modern system, along with upgrades to control rooms, computers and data centers, wide area communications, security and field devices. The SCADA System Master Plan Implementation Program will be undertaken over a 6.5 year period at a cost of up to \$20 million, excluding CVWD staff labor.								



CVWD's Administration Building in Palm Desert

Domestic Water



2019 Capital Improvements - Domestic Water

Domestic Water Projects

Planned Domestic Water Fund projects for fiscal 2019 amount to approximately \$42.2 million. Of this amount, over \$21.8 million is funded by cash, approximately \$5.7 million in Water System Backup Facility Charges, \$11.7 million in loans, and approximately \$2.9 million in grants.

Capital Improvement Budget - Domestic Water

Page 1

	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Districtwide Project Allocation		6,445,388	2,721,700	1,526,000	1,060,300	2,204,000	13,957,388
Subtotal Districtwide Project Allocation		6,445,388	2,721,700	1,526,000	1,060,300	2,204,000	13,957,388
Reservoir Construction Program							
Reservoir 1092-1 Rehabilitation	R01401	25,000	-	-	-	-	25,000
Reservoir 3601-1 Rehabilitation	R01801	-	800,000	-	-	-	800,000
Reservoir 3601-2 Design and Construction	R01601	25,000	-	-	-	-	25,000
Reservoir 4602 Rehabilitation	R023XX	-	-	-	-	50,000	50,000
Reservoir 4602-2 Design and Construction	R01901	100,000	2,225,000	25,000	-	-	2,350,000
Reservoir 4603 Rehabilitation	R023XX	-	-	-	-	50,000	50,000
Reservoir 5504-1 and 5504-2 Rehabilitation	R01603	50,000	-	-	-	-	50,000
Reservoir 5513 Rehabilitation	R022XX	-	-	50,000	800,000	25,000	875,000
Reservoir 5514-1 Rehabilitation	R020XX	-	-	50,000	800,000	25,000	875,000
Reservoir 5514-2 Design and Construction	R01704	-	-	1,600,000	25,000	-	1,625,000
Reservoir 5643-1 and 5643-2 Rehabilitation	R01702	1,750,000	25,000	-	-	-	1,775,000
Reservoir 5655 Rehabilitation	R023XX	-	-	-	-	100,000	100,000
Reservoir 5655-2 Design and Construction	R01604	-	-	-	100,000	4,000,000	4,100,000
Reservoir 6631-1 and 6631-2 Rehabilitation	R01703	-	-	1,300,000	400,000	-	1,700,000
Reservoir 7101 Rehabilitation	R021XX	-	-	50,000	750,000	25,000	825,000
Reservoir Safety Upgrades, Phase 2 (21 Reservoirs)	R01802	725,000	-	-	-	-	725,000
Subtotal Reservoir Construction Program		2,675,000	3,050,000	3,075,000	2,875,000	4,275,000	15,950,000
Booster Station Construction Program							
Booster Station 03501 Construction	B01801	1,000,000	2,100,000	1,174,000	-	-	4,274,000
Booster Station 05513 Rehabilitation and Upgrade	B01802	350,000	1,500,000	-	-	-	1,850,000
Booster Station 05611 Rehabilitation and Upgrade	B020XX	-	350,000	1,500,000	-	-	1,850,000
Booster Station 08121 Rehabilitation and Upgrade	B021XX	-	-	300,000	1,000,000	-	1,300,000
Highway 86 Booster Pump Station (BS 08886)	DW1105	1,500,000	4,800,000	-	-	-	6,300,000
Subtotal Booster Station Construction		2,850,000	8,750,000	2,974,000	1,000,000	-	15,574,000

Table continues on the following page

Capital Improvement Budget - Domestic Water

Page 2

	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Water Main Improvements							
Infrastructure Improvements -							
Sky Mountain Pressure Zone	DW1315	6,500,000	3,000,000	50,000	-	-	9,550,000
Mission Hills Pressure Zone Expansion	DW1309	50,000	-	-	-	-	50,000
Thermal Mutual Water Company Consolidation	DW1708	1,200,000	-	-	-	-	1,200,000
Transmission Main Construction, Phase 1 -							
Avenue 66	DW1617	310,160	-	4,700,000	-	-	5,010,160
Transmission Main Construction, Phase 2 -							
Avenue 66	DW20XX	-	100,000	500,000	8,910,160	-	9,510,160
Transmission Main Construction, Phase 2 -							
Highway 86	DW1202	10,200,000	9,500,000	-	-	-	19,700,000
Transmission Main Construction, Phase 3 -							
Highway 86 -Preliminary Design Report	DW20XX	-	100,000	-	-	-	100,000
Transmission Main Upsizing - Coachella Valley Unified School District							
(Westside Elementary School)	DW1711	900,000	-	-	-	-	900,000
Water Main Installation - Galindo Court and Sabrina Court							
	DW1712	75,000	75,000	2,000,000	-	-	2,150,000
Water Main Replacement - Dale Kiler Road	DW1704	-	3,038,000	-	-	-	3,038,000
Water Main Replacement - North Shore	DW1622	-	2,000,000	-	-	-	2,000,000
Water Main Replacement, Phase 1 - Salton City	DW1606	750,000	750,000	-	-	-	1,500,000
Water Main Replacement, Phase 1 - Sun City, Palm Desert							
	DW1703	500,000	6,000,000	3,500,000	-	-	10,000,000
Water Main Replacement, Phase 1 - Talavera	DW1605	-	4,500,000	-	-	-	4,500,000
Water Main Replacement, Phase 2 - Salton City	DW1606	-	-	175,000	1,500,000	-	1,675,000
Water Main Replacement, Phase 2 - Sun City, Palm Desert							
	DW20XX	-	500,000	6,000,000	3,000,000	-	9,500,000
Water Main Replacement, Phase 2 - Talavera	DW1710	4,500,000	-	-	-	-	4,500,000
Water Main Replacement, Phase 3 - Sun City, Palm Desert							
	DW20XX	-	-	500,000	3,000,000	4,000,000	7,500,000
Water Main Replacement, Phase 3 - Talavera	DW21XX	-	-	300,000	1,200,000	2,000,000	3,500,000
Water Main Replacement, Phase 4 - Sun City, Palm Desert							
	DW20XX	-	-	-	500,000	4,500,000	5,000,000
Water Main Replacement, Phase 4 - Talavera	DW23XX	-	-	-	-	250,000	250,000
Water Supply - East Coachella Valley	DW1801	450,000	-	-	-	-	450,000
Subtotal Water Main Improvements		25,435,160	29,563,000	17,725,000	18,110,160	10,750,000	101,583,320
Well Drilling and Upgrade Program							
Gas Chlorine Systems Replacement - Well Sites							
Ion Exchange Plant 7991-	DW1505	664,000	-	-	-	-	664,000
Preliminary Design Report	IE1901	75,000	-	-	-	-	75,000
Well 3405-2 Redrill - Sky Valley Pressure Zone	DW1707	1,000,000	-	-	-	-	1,000,000
Well 4520-2 Redrill -							
Sky Mountain Pressure Zone	WD1404	100,000	-	-	-	-	100,000
Well 4615-1 Redrill - Mission Hills Pressure Zone	DW1424	1,000,000	-	-	-	-	1,000,000
Well 5620-2 Redrill - Valley Pressure Zone	DW1506	100,000	-	-	-	-	100,000
Well 5683-1 - Valley Pressure Zone	DW1705	846,000	-	-	-	-	846,000
Well 6734-1 - Back-Up Generator	DW1623	306,000	-	-	-	-	306,000
Well Maintenance Prioritization Plan	DW1803	750,000	750,000	750,000	750,000	750,000	3,750,000
Subtotal Well Drilling and Upgrade Program		4,841,000	750,000	750,000	750,000	750,000	7,841,000
Total Domestic		42,246,548	44,834,700	26,050,000	23,795,460	17,979,000	154,905,708

Project ID: R01401								
Reservoir 1092-1 Rehabilitation								
Project Description & Justification	Inspect, repair, and rehabilitate existing 1.0 million-gallon Reservoir 1092-1 in order to maximize its service life and upgrade appurtenances to current Cal-OSHA and CVWD standards. This reservoir is listed in Category 1 of the July 2016 Reservoir Prioritization Report. Tank has been rehabilitated and is in service. One year warranty inspection remains.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	123,000	651,000	25,000	-	-	-	-	799,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2016	2019	Other			
Nonfinancial Impact								
The inspection, repair and rehabilitation of existing Reservoir 1092-1 will improve the water service reliability and maintain water storage capacity to Salton City and surrounding areas.								

Project ID: R01601								
Reservoir 3601-2 Design and Construction								
Project Description & Justification	Construct a new 1.7 million-gallon reservoir on the existing reservoir/booster site 3601 within the ID 8 and ID 18 pressure zones. These zones have a storage deficiency of approximately 2.7 million-gallon based on a recent storage capacity analysis. The proposed reservoir will reduce the zone storage deficiency and improve the reliability of the system. Tank has been constructed and is in service. One year warranty inspection remains.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	416,000	1,416,000	25,000	-	-	-	-	1,857,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	100%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,000	100	Start	Complete	Phase as of 2019			
			2017	2019	Other			
Other Financial Impact								
This new reservoir will require additional labor for inspection and maintenance. Additional storage will allow CVWD to take advantage of Time Of Use (TOU) electrical rates.								
Annual Operating Cost Impact								
Telemetry, manually operated lighting, annual inspections.								
Nonfinancial Impact								
A new reservoir will allow for the removal of Reservoir 3601-1 from service for routine maintenance and repairs.								



Project ID: R01901								
Reservoir 4602-2 Design and Construction								
Project Description & Justification	Design and construct a new 2.5 million-gallon reservoir on the existing reservoir site 4602 within the Valley Pressure Zone. This zone has a storage deficiency of approximately 28.0 million-gallon based on a recent storage capacity analysis. The proposed reservoir will reduce the zone storage deficiency and improve the reliability of the system.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	100,000	2,225,000	25,000	-	-	2,350,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	100%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,000	-	Start	Complete	Phase as of 2019			
			2018	2021	Design			
Nonfinancial Impact								
A new reservoir will allow for the removal of Reservoir 4602-1 from service for routine maintenance and repairs.								

Project ID: R01603								
Reservoir 5504-1 and 5504-2 Rehabilitation								
Project Description & Justification	Inspect, repair, and rehabilitate existing 2.5 million-gallon and 3.5 million-gallon Reservoirs 5504-1 and 5504-2 in order to maximize the service lives of both reservoirs and upgrade appurtenances to current Cal-OSHA and CVWD standards. The reservoirs are both listed in Category 2 of the July 2016 Reservoir Prioritization Report. Tanks have been rehabilitated and are in service. One year warranty inspections remain.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	636,000	1,128,000	50,000	-	-	-	-	1,814,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2019	Other			
Nonfinancial Impact								
The inspection, repair, and rehabilitation of existing Reservoir nos. 5504-1 and 5504-2 will improve the water quality and maintain the water storage capacity within the Sky Mountain Pressure Zone and surrounding areas.								

Project ID: R01702								
Reservoir 5643-1 & 2 Rehabilitation								
Project Description & Justification	The purpose of this project is to rehabilitate Reservoir 5643-1 and 5643-2 located along Alamo Drive in Palm Desert. Both reservoirs provide a total of 4.86 million gallons of domestic water storage for approximately 1,800 customers in the Marrakesh Pressure Zone. The reservoirs were constructed 44 years ago and 38 years ago, respectively, and require rehabilitation based on their age, coating condition, and findings from the July 2016 Reservoir Prioritization Report. Reservoir 5643-1 has several fallen rafters that have failed due to corrosion. The project also includes upgrading appurtenances and safety equipment to comply with current Cal-OSHA regulations, health codes, and American Water Works Association standards. Interior coatings will be removed by abrasive blast cleaning and a new epoxy system will be applied. Exterior paint will also be removed by abrasive blast cleaning and new primer and paint will be applied. The project also includes site grading, drainage, and retaining wall improvements.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	50,000	995,000	1,750,000	25,000	-	-	-	2,820,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2020	Construction			
Nonfinancial Impact								
The rehabilitation of existing Reservoir 5643-1 and 5643-2 will improve the water service reliability and maintain the water storage capacity within the Marrakesh Pressure Zone.								

Project ID: R01802								
Reservoir Safety Upgrades, Phase 2 (21 Reservoirs)								
Project Description & Justification	Upgrade the remaining 21 reservoirs to current Cal-OSHA standards for fall protection and prevention.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	30,000	725,000	-	-	-	-	755,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Nonfinancial Impact								
Provides a safe environment for climbing tanks when required.								



Project ID: B01801								
Booster Station 03501 Construction								
Project Description & Justification	Construct new Booster Station 03501 (BS 03501) beside existing one and provide a generator to supply power to the station during power outage. BS 03501 is the hub for the entire Sky Valley Pressure Zone. Existing system is very old and needs to be replaced without shutting down service. During a power outage a generator has to be hauled to the site and connected. The delay will cause stress to the entire Sky Valley Zone system and will take days for the system to recover.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	340,000	1,000,000	2,100,000	1,174,000	-	-	4,614,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2021	Construction			
Nonfinancial Impact								
Failure of the existing booster station will compromise CVWD's ability to serve over half the population within the Sky Valley Pressure Zone.								

Project ID: B01802								
Booster Station 05513 Rehabilitation and Upgrade								
Project Description & Justification	Rehabilitate and upgrade existing Booster Station 05513 and all necessary above and under ground appurtenances including pumps and motors, piping, valves, mechanical, structural, electrical, instrumentation, telemetry, and other miscellaneous work to improve the efficiency of the booster and allow for the demolition of Booster Station 05514. Work will include the purchase and installation of back up electrical generator.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	350,000	1,500,000	-	-	-	1,850,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	(2,500)	(6,000)	Start	Complete	Phase as of 2019			
			2018	2020	Design			
Other Financial Impact								
By relocating Booster Station 05514 to Booster Station 05513 and rehabilitating/upgrading one site, CVWD will save on capital costs.								
Nonfinancial Impact								
Booster Stations 05513 and 05514 are each 45 years old and in need of restoration. Additionally, by combining the two boosters at one site and installing a back up electrical generator, water service reliability is greatly increased.								

Project ID: DW1105								
Highway 86 Booster Pump Station (BS 08886)								
Project Description & Justification	The Highway 86 Booster Station 08886 Project (Hwy 86 TMBS Project) includes the construction of a booster station located on the southeast corner of Harrison Street and Avenue 80. This is a Strategic Initiative project that will provide domestic water from CVWD's Cove water system to the communities of Desert Shores, Salton Sea Beach, and Salton City (Improvement District 11) in order to improve the water quality for our 2,760 customers. The project will be funded by a State Revolving Fund (SRF) loan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	677,000	7,000	1,500,000	4,800,000	-	-	-	6,984,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			100%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Nonfinancial Impact								
The Hwy 86 TMBS Project will improve the water quality to the 2,760 customers within Improvement District 11.								

Project ID: DW1315								
Infrastructure Improvements - Sky Mountain Pressure Zone								
Project Description & Justification	Design and construct a partially-buried 10 million-gallon concrete reservoir and transmission main to support the Sky Mountain Pressure Zone (SMPZ). The transmission main was completed in December 2017, and will connect this proposed reservoir to an existing SMPZ transmission main in Bob Hope Drive at Ramon Road. This zone has a storage deficiency of approximately 20.3 million-gallon based on a recent storage capacity analysis. The proposed reservoir will reduce the zone storage deficiency and improve the reliability of the system.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	2,984,000	3,866,000	6,500,000	3,000,000	50,000	-	-	16,400,000
Funding Source (%)	Pay-as-you-go		Restricted					
	60%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	40%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,500	500	Start	Complete	Phase as of 2019			
			2015	2021	Construction			
Other Financial Impact								
Additional storage will allow CVWD to take advantage of Time Of Use (TOU) electrical rates for domestic water wells within the pressure zone.								
Annual Operating Cost Impact								
Additional routine inspections. Minimal electrical consumption - SCADA equipment, site security, and lighting.								
Nonfinancial Impact								
The new transmission main and reservoir will serve current and future water demands on both sides of I-10 within the SMPZ and improve the reliability of the system.								



Project ID: DW1309

Mission Hills Pressure Zone Expansion

Project Description & Justification	Construct a 6.5 million gallon domestic water storage reservoir and 21,000 feet of 36-inch transmission main to serve CVWD's existing and future customers in Sections 13, 19, and 24 in the area known as CVWD's Mission Hills Pressure Zone (MHPZ). Work with the City of Rancho Mirage and developers to fund the ultimate domestic water facilities to serve the MHPZ. Transmission main and tank have been constructed and are in service. One year tank warranty inspection remains.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	9,875,000	4,441,000	50,000	-	-	-	-	14,366,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	100%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,500	500	Start	Complete	Phase as of 2019			
			2013	2018	Inspection & Cleaning			
Annual Operating Cost Impact								
Additional routine inspections. Minimal electrical consumption - SCADA equipment, site security and lighting.								
Nonfinancial Impact								
The Mission Hills Pressure Zone is currently dependent on the Date Palm Pressure Zone for storage. By constructing a storage reservoir and transmission main for the Mission Hills Pressure Zone, both the Date Palm and Mission Hills Pressure Zones will benefit. In addition, the project will support future development within Sections 13, 19, and 24 in the Mission Hills Pressure Zone area. Work in conjunction with the City of Rancho Mirage and developers to fund the ultimate domestic water facilities to serve the MHPZ.								

Project ID: DW1708

Thermal Mutual Water Company Consolidation

Project Description & Justification	The purpose of this project is to consolidate the Thermal Mutual Water Company (TMWC) to CVWD's domestic water distribution system. Thermal Mutual Water Company is an existing small private community water system with 38 homes located on the southwest corner of 55th Avenue and Calhoun Street in Thermal. TMWC provides water to the homes through old pipeline distribution system from one private well that has poor water quality and reliability. The TMWC is unable to fund the construction of the necessary water system improvements without severe financial impacts to its ratepayers. By consolidating the TMWC water system to CVWD's system, the project will provide safe domestic water and fire protection service to this small disadvantaged community. The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this consolidation project.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	42,000	43,000	1,200,000	-	-	-	-	1,285,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			100%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,000	-	Start	Complete	Phase as of 2019			
			2017	2019	Planning			
Nonfinancial Impact								
The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this consolidation project.								

Transmission Main Construction, Phase 1 - Avenue 66

Project Description & Justification	This project consists of the construction of a 30-inch transmission main along Avenue 66 between Highway 86 and Dale Kiler Road near Mecca as part of Riverside County's Avenue 66 Grade Separation Project. This is the first phase to provide a secondary water supply to the Mecca and Eastern Coachella Valley which will provide a more reliable water supply to existing customers in these disadvantaged communities as well as create opportunities for development and growth in these areas.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	95,000	6,000	310,160	-	4,700,000	-	-	5,111,160
Funding Source (%)	Pay-as-you-go		Restricted					
	50%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			50%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2021	Design			
Other Financial Impact								
CVWD will seek grant funding and developer contributions to fund a portion of the design and construction costs.								

Project ID: DW1202

Highway 86 Transmission Main, Phase 2

Project Description & Justification	The Highway 86 Transmission Main and Booster Station BS 08886 Project (Hwy 86 TMBS Project) includes the construction of approximately 35,230 feet of 30-inch diameter domestic water transmission main generally located along Harrison Street (Old Highway 86) between Avenue 74 to Avenue 86 (County Line Road). The booster station is located on the southeast corner of Harrison Street and Avenue 80. This is a Strategic Initiative project that will provide domestic water from CVWD's Cove water system to the communities of Desert Shores, Salton Sea Beach, and Salton City (Improvement District 11) in order to improve the water quality for 2,760 customers. The project will be funded by a State Revolving Fund (SRF) loan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	572,000	79,000	10,200,000	9,500,000	-	-	-	20,351,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			100%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Nonfinancial Impact								
The Hwy 86 TMBS Project will improve the water quality to the 2,760 customers within Improvement District 11.								

Project ID: DW1711

Transmission Main Upsizing - Coachella Valley Unified School District (Westside Elementary School)

Project Description & Justification	The purpose of this project is to consolidate the Coachella Valley Unified School District, Westside Elementary School water system to CVWD's domestic water distribution system. The Westside Elementary School serves approximately 560 disadvantaged students in the community of Thermal in Riverside County. Currently water is supplied to the students and faculty from a well that has poor water quality and reliability. The Westside Elementary School is unable to fund the construction of the necessary water system improvements without severe financial impacts to the school district. By consolidating the Westside Elementary School to CVWD's system, the project will provide safe domestic water and fire protection service to this school in a small disadvantaged community. The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this consolidation project.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	900,000	-	-	-	-	900,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			100%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2019	Construction			
Other Financial Impact								
The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this project.								



Project ID: DW1712

Water Main Installation - Galindo Court and Sabrina Court

Project Description & Justification	The purpose of this project is to consolidate the Galindo Mobile Home Park (GMHP) water systems to CVWD's domestic water distribution system. The GMHP water systems are comprised of eight separate water systems that currently serve approximately 100 mobile homes through old pipeline distribution systems from six private wells that have poor water quality and reliability. The GMHP Water systems are unable to fund the construction of the necessary water system improvements without severe financial impacts to its ratepayers. By consolidating the GMHP Water Systems to CVWD's system, the project will provide safe domestic water and fire protection service to this small disadvantaged community. The GMHP project is located along Galindo Court and Sabrina Court south of 40th Avenue between Adams Street and Jefferson Street in Indio. The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this consolidation project.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	22,000	75,000	75,000	2,000,000	-	-	2,172,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			100%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,000	-	Start	Complete	Phase as of 2019			
			2018	2021	Design			
Other Financial Impact								
The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this project.								

Project ID: DW1606

Water Main Replacement, Phase 1 - Salton City

Project Description & Justification	Replace four critical water main crossings under Highway 86 in the communities of Desert Shores, Salton Sea Beach, and Salton City. These crossings have been identified in the Salton City Pipe Replacement Master Plan as being at high or extreme risk of failure due to age, condition, history of leaks, likelihood of failure, and consequence of failure. The existing water mains were installed in the late 1950's to early 1960's in extremely corrosive soils and are in need of replacement in order to provide reliable service.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	25,000	13,000	750,000	750,000	-	-	-	1,538,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	(1,000)	-	Start	Complete	Phase as of 2019			
			2018	2020	Construction			
Other Financial Impact								
Reduced pipeline maintenance and repairs.								
Nonfinancial Impact								
Replacement of the existing water mains will allow CVWD to continue providing reliable domestic water service and fire protection. Reduce risk of a leak and major safety hazard on Highway 86.								

Project ID: DW1703								
Water Main Replacement, Phase 1 - Sun City, Palm Desert								
Project Description & Justification	The purpose of this project is to replace a portion (25,300 feet) of corroded ductile iron pipe (DIP) and appurtenances within the master-planned community of Sun City Palm Desert (SCPD) located in north Indio. The SCPD project is comprised of 4,985 homes and was completed fifteen years ago. However, the water system has already experienced nine water main leaks during the past seven years. These leaks result in a lack of water service to customers during repairs, disruption to the community, unexpected expenses, and additional staff time to address the impacts resulting from the pipe failures. Krieger & Stewart Consultants (K&S) performed a Pipeline Corrosion Evaluation (Evaluation). This work consisted of a geotechnical investigation, removal of seven representative sections of water main, a corrosion assessment, and recommendations. The geotechnical report characterized the soils in SCPD as moderately corrosive to very highly corrosive. The Evaluation concluded that the ductile iron pipe is subject to additional leaks and failure due to severe external corrosion. Therefore, K&S recommends all pipe (202,323 feet) be replaced with new pipe with corrosion protection. Staff has proposed replacing the pipe and appurtenances in nine phases over 10 years. Phase 1 has been identified as most critical since six of the nine leaks have occurred within this phase.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	500,000	6,000,000	3,500,000	-	-	10,000,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2019	2021	Design			
Other Financial Impact								
Reduce operations and maintenance of the pipeline.								
Nonfinancial Impact								
The ductile iron pipe in Sun City Palm Desert is leaking due to corrosion. The replacement of the pipe is needed to prevent future leaks from occurring. The replacement of the existing and deteriorated distribution pipelines and service lines will improve domestic service, fire protection, and increase the reliability of water delivery to customers within the project area.								

Project ID: DW1710								
Water Main Replacement, Phase 2 - Talavera								
Project Description & Justification	The purpose of this project is to replace portions (15,400 feet) of corroded ductile iron pipe (DIP) and appurtenances within the master-planned community of Talavera located in north Indio. The Talavera project includes 782 homes and was completed twelve years ago. However, the water system has already experienced eight water main leaks during the past seven years. These leaks result in a lack of water service to our customers during repairs, disruption to the community, unexpected expenses, and additional staff time to address the impacts resulting from the pipe failures. Krieger & Stewart Consultants (K&S) performed a Pipeline Corrosion Evaluation (Evaluation). This work consisted of a geotechnical investigation, removal of nine representative sections of water main, a corrosion assessment, and recommendations. The geotechnical report characterized the soils in Talavera as severely corrosive to very severely corrosive. The Evaluation concluded that the ductile iron pipe is subject to additional leaks and failure due to severe external corrosion. Therefore, K&S recommends all pipe (51,257 feet) be replaced with new pipe with corrosion protection. Staff has proposed replacing the pipe and appurtenances in five phases over 6 years. Phase 2 has been identified as most critical since four of the eight leaks have occurred within this phase. The project will also be replacening corroded DIP along Avenue 38 between Dune Palms Road and Jefferson Avenue which has had a leak in the past two years. This project was also included as Strategic Initiative No. 20 in CVWD's adopted Fiscal Year 2018 Strategic Plan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	4,500,000	-	-	-	-	4,500,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Other Financial Impact								
Reduce operations and maintenance of the pipeline.								
Nonfinancial Impact								
The ductile iron pipe in Talavera is leaking due to corrosion. The replacement of the pipe is needed to prevent future leaks from occurring. The replacement of the existing and deteriorated distribution pipelines and service lines will improve domestic service, fire protection, and increase the reliability of water delivery to customers within the project area.								



Project ID: DW1801								
Water Supply - East Coachella Valley								
Project Description & Justification	Identify potential small community systems for consolidation into CVWD's Cove Communities water system per recommendation of the Disadvantaged Communities Infrastructure Task Force.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	450,000	-	-	-	-	450,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			100%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	1,000	Start	Complete	Phase as of 2019			
			2018	2019				
Other Financial Impact								
The California State Water Resources Control Board will provide funding to reimburse CVWD for all planning and construction costs to complete this project.								

Project ID: DW1505								
Gas Chlorine Systems Replacement - Well Sites								
Project Description & Justification	Purchase and install skid-mounted tablet-feeder chlorine systems to replace the existing gas chlorine systems for active wells throughout the Coachella Valley. The new chlorine equipment will enhance environmental compliance and safety, requires minimal maintenance, and is cost-effective to operate.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	676,000	2,222,000	664,000	-	-	-	-	3,562,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2016	2019	Construction			
Annual Operating Cost Impact								
The tablet chlorine feeder units are safer to operate, require less staff time to maintain, and are subject to less stringent permit requirements compared to the existing gas chlorination systems.								
Nonfinancial Impact								
The replacement of the gas chlorine systems at active well sites with the tablet feeder units will improve safety at well sites while providing high quality drinking water to customers.								

Project ID: IE1901								
Ion Exchange Plant 7991- Preliminary Design Report								
Project Description & Justification	Conduct an initial evaluation to identify alternatives that will improve the existing Arsenic Ion Exchange Treatment Plant at Well Site 7991.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	75,000	-	-	-	-	75,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2016	2019	Planning			

Project ID: DW1707

Well 3405-2 Redrill - Sky Valley Pressure Zone

Project Description & Justification	This ongoing project is to redrill Well 3405 in order to continue providing customers in the Sky Valley Pressure Zone (Improvement District 8) with a reliable supply of domestic water and fire protection. A recent supply/demand analysis shows this pressure zone has limited supply capacity during peak day demand conditions.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	12,000	1,156,000	1,000,000	-	-	-	-	2,168,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	80,000	Start	Complete	Phase as of 2019			
			2017	2019	Construction			
Nonfinancial Impact								
The redrilling of Well 3405 will help meet domestic drinking water demands, fire protection, maintain adequate water pressure, and increase the reliability of water delivery to residents within the Sky Valley Pressure Zone.								

Project ID: WD1404

Well 4520-2 Redrill - Sky Mountain Pressure Zone

Project Description & Justification	This ongoing project is to replace Well 4520 in order to continue providing surrounding residents with reliable domestic water and fire protection as well as maintain adequate water pressure within the Sky Mountain Pressure Zone.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	1,118,000	762,000	100,000	-	-	-	-	1,980,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	60,000	Start	Complete	Phase as of 2019			
			2014	2019	Construction			
Other Financial Impact								
Well does not currently require treatment for chromium 6.								
Nonfinancial Impact								
The redrilling of Well 4520 will help meet domestic drinking water demands, fire protection, maintain adequate water pressure, and increase the reliability of water supply to customers within the Sky Mountain Pressure Zone.								



Project ID: DW1424

Well 4615-1 Redrill - Mission Hills Pressure Zone

Project Description & Justification	This ongoing project is a developer funded project to drill new Well 4615-1 in order to continue providing customers in the new Mission Hills Pressure Zone with a reliable supply of domestic water and fire protection. A recent supply/demand analysis shows this pressure zone has limited supply capacity during peak day demand conditions.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	10,000	990,000	1,000,000	-	-	-	-	2,000,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	80,000	Start	Complete	Phase as of 2019			
			2017	2019	Construction			
Nonfinancial Impact								
The drilling of Well 4615-1 will help meet domestic drinking water demands, fire protection, maintain adequate water pressure, and increase the reliability of water delivery to residents within the Mission Hills Pressure Zone.								

Project ID: DW1506

Well 5620-2 Redrill - Valley Pressure Zone

Project Description & Justification	This ongoing project is to redrill Well 5620 in order to continue providing customers in the Valley Pressure Zone with reliable domestic water and fire protection. A recent supply/demand analysis shows this pressure zone has limited supply capacity during peak day demand conditions.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	1,274,000	756,000	100,000	-	-	-	-	2,130,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	120,000	Start	Complete	Phase as of 2019			
			2014	2018	Construction			
Nonfinancial Impact								
The redrilling of Well 5620 will help meet domestic drinking water demands, fire protection, maintain adequate water pressure, and increase the reliability of water delivery to residents within the Valley Pressure Zone.								

Project ID: DW1705

Well 5683-1 - Valley Pressure Zone

Project Description & Justification	This ongoing project is to replace Well 5666 in order to continue providing surrounding residents with reliable domestic water and fire protection as well as maintain adequate water pressure within the Valley Pressure Zone.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	33,000	1,262,000	846,000	-	-	-	-	2,141,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	60,000	Start	Complete	Phase as of 2019			
			2016	2019	Construction			
Other Financial Impact								
Well is not expected to require treatment for chromium 6.								
Nonfinancial Impact								
The drilling of Well 5683 will help meet domestic drinking water demands, fire protection, maintain adequate water pressure, and increase the reliability of water supply to customers within the Valley Pressure Zone.								

Project ID: DW1623								
Well 6734-1 - Back-Up Generator								
Project Description & Justification	This is a developer funded project to install a back-up generator at Well 6734-1 which is in the Cahuilla Pressure Zone. This project will enhance the pressure zone's ability to continue to provide a reliable supply of domestic water and fire protection.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	3,000	17,000	306,000	-	-	-	-	326,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	100%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Nonfinancial Impact								
The installation of the back-up generator for Well 6734-1 will strengthen the Cahuilla Pressure Zone to continue to provide a reliable supply of domestic water and fire protection to the residents.								

Project ID: DW1803								
Well Maintenance Prioritization Plan								
Project Description & Justification	Develop and implement a well maintenance prioritization plan that will maximize the existing and future well production, and will improve the overall well pumping efficiency of all active wells. CVWD is dependent on water wells for domestic water production and unexpected failures create major challenges to maintaining an adequate supply. Rehabilitating existing wells will increase efficiency and decrease operating costs as well as reduce the need to build costly new well facilities by improving and extending the service life of existing assets.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	257,000	750,000	750,000	750,000	750,000	750,000	4,007,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2023	Construction			
Other Financial Impact								
Drilling and equipping a replacement well after a failure currently costs over \$1 million and takes approximately two years before it is in operation. Maintenance and rehabilitation of the existing well assets will extend the service life and reduce the number of new wells that will need to be built.								
Annual Operating Cost Impact								
Increasing well and pump efficiency will decrease the electrical costs to produce water.								
Nonfinancial Impact								
This project will improve the reliability of the well pumping plants, and will minimize well production down time.								



Canal Water



2019 Capital Improvements - Canal Water

Canal Water Projects

Planned Canal Water Fund projects for fiscal 2019 amount to slightly over \$12.5 million. Projects will be funded with cash of over \$12 million and \$500,000 in grant funding.

Capital Improvement Budget - Canal Water

	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Districtwide Project Allocation		3,049,132	1,538,020	915,600	636,180	1,322,400	7,461,332
Subtotal Districtwide Project Allocation		3,049,132	1,538,020	915,600	636,180	1,322,400	7,461,332
Canal							
L4 Pump Station & Check Structure Replacement	C01801	400,000	4,500,000	-	-	-	4,900,000
Oasis Area Irrigation System Expansion, Phase I	C01901	400,000	-	-	-	-	400,000
Subtotal Canal		800,000	4,500,000	-	-	-	5,300,000
Irrigation							
Irrigation Lateral 99.8-0.51 Improvement, Phase 2 & 3	IR1501	4,600,000	-	-	-	-	4,600,000
Irrigation Lateral 101.3 and Avenue 55/Fillmore Drain Improvement	IR1801	710,000	-	-	-	-	710,000
Irrigation Lateral 102.3 Replacement	IR20XX	-	400,000	1,700,000	-	-	2,100,000
Irrigation Lateral 108.2 Replacement, Phase I & 2	IR22XX	-	-	-	300,000	2,450,000	2,750,000
Irrigation Lateral 119.2 Replacement	IR21XX	-	-	75,000	550,000	-	625,000
Irrigation Lateral 119.64-2.6 Replacement	IR1802	-	-	-	560,000	-	560,000
Irrigation Lateral 119.64-4.1 Replacement	IR20XX	-	400,000	3,100,000	-	-	3,500,000
Irrigation Lateral 119.64-7.5 Replacement	IR1701	-	1,000,000	4,250,000	-	-	5,250,000
Irrigation Lateral 123.45-1.3 and Lateral 123.45-1.3-2.2 Division Box Replacement	IR1901	100,000	750,000	-	-	-	850,000
Irrigation Lateral 123.45-1.3-2.2 Replacement	IR1804	1,260,000	-	-	-	-	1,260,000
Irrigation Lateral 123.45-1.3-2.8 Replacement	IR21XX	-	-	200,000	1,600,000	-	1,800,000
Irrigation Lateral 123.45-6.0 Replacement	IR1601	1,350,000	1,650,000	-	-	-	3,000,000
Subtotal Irrigation		8,020,000	4,200,000	9,325,000	3,010,000	2,450,000	27,005,000
Drainage							
Drain Pipeline Replacement - Avenue 59	IR1805	675,000	-	-	-	-	675,000
Subtotal Drainage		675,000	-	-	-	-	675,000
Total Canal		12,544,132	10,238,020	10,240,600	3,646,180	3,772,400	40,441,332



Project ID: C01801

L4 Pump Station & Check Structure at Mile Post 120.8 Replacement

Project Description & Justification	The check structure at Mile Post 120.8 and the L4 Pump Station on the Coachella Canal is failing and needs of replacement. This structure has been on the US Bureau of Reclamation's Operations, Maintenance, and Replacement list for about six years. The structure is key to the efficient operation of the L4 Pump Station that supplies water to approximately eight La Quinta Area Golf Courses.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	400,000	400,000	4,500,000	-	-	-	5,300,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	(2,500)	-	Start	Complete	Phase as of 2019			
			2017	2020	Construction			
Nonfinancial Impact								
The project will replace a failing canal check structure. Relocation will address low water elevation due to subsidence within the canal.								

Project ID: C01901

Oasis Area Irrigation System Expansion, Phase I

Project Description & Justification	The project will involve developing construction plans and specifications for reservoirs within the Oasis area that will replace the existing Oasis Tower to facilitate a more efficient operation of Irrigation Lateral No. 97.1. This will allow for improved customer service by providing additional pressures and decreasing the amount of surging within the distribution system.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	400,000	-	-	-	-	400,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	Out Years	Planning			
Nonfinancial Impact								
This project will expand the CVWD's service area for the delivery of Colorado River Water and complies with the Source Substitution element (In-Lieu Recharge) within the Coachella Valley Water Management Plan.								

Project ID: IR1501

Irrigation Lateral 99.8-0.51 Improvement, Phase 2 & 3

Project Description & Justification	This project consists of the replacement of 18,500 linear feet of irrigation lateral located east of Fillmore Street between Avenue 58 and Avenue 64. The existing pipeline and baffle stands waste approximately 1,500 acre feet of water annually through leaks and surges.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	3,730,000	2,125,000	4,600,000	-	-	-	-	10,455,000
Funding Source (%)	Pay-as-you-go		Restricted					
	89%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			11%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2014	2019	Construction			
Other Financial Impact								
CVWD has received a \$1 million WaterSMART grant from the United States Bureau of Reclamation								
Nonfinancial Impact								
The replacement of the pipeline will improve customer service while minimizing water lost through leakage & surging.								

Project ID: IR1801								
Irrigation Lateral 101.3 and Avenue 55/Fillmore Drain Improvement								
Project Description & Justification	This project consists of improving the conveyance capacity of the drain pipeline and connecting the irrigation lateral pipeline to improve service. Specifically the project will replace 2,400 linear feet of small concrete drain pipeline with 18-inch high density polyethylene pipe and replace a meter and valving cluster.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	69,000	710,000	-	-	-	-	779,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2017	2019	Design			
Nonfinancial Impact								
The replacement of the regulatory meter and the drain pipeline will assist the operators of the lateral 101.3 to provide better customer service.								

Project ID: IR1901								
Irrigation Lateral 123.45-1.3 and Lateral 123.45-1.3-2.2 Division Box Replacement								
Project Description & Justification	This project involves replacing two concrete division boxes located along Irrigation Lateral 123.45-1.3. The structures have experienced numerous leaks throughout, which have impacted canal water delivery.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	100,000	750,000	-	-	-	850,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2020	Design			
Nonfinancial Impact								
The replacement of these two structures will improve customer service while minimizing water lost through leakage.								

Project ID: IR1804								
Irrigation Lateral 123.45-1.3-2.2 Replacement								
Project Description & Justification	This project consists of the replacement of approximately 6,300 linear feet of irrigation pipeline located east of Jackson Street between Avenue 60 and 62. The pipeline has experienced numerous leaks throughout, which have impacted canal water delivery.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	140,000	1,260,000	-	-	-	-	1,400,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Design			
Nonfinancial Impact								
The replacement of this pipeline will improve customer service while minimizing water lost through leakage.								



Project ID: IR1601								
Irrigation Lateral 123.45-6.0 Replacement								
Project Description & Justification	This project consists of the replacement of approximately 11,300 linear feet of irrigation pipeline located north of Avenue 66 between Jackson and Harrison Streets. The pipeline has experienced numerous leaks which impact delivery of canal water to customers.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	210,000	111,000	1,350,000	1,650,000	-	-	-	3,321,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Nonfinancial Impact								
The replacement of this pipeline will improve customer service while minimizing water lost through leakage.								

Project ID: IR1805								
Avenue 59 Drain Pipeline Replacement								
Project Description & Justification	Replace approximately 3,150 linear feet of concrete drain pipeline with 18-inch high density polyethylene pipeline, and construct up to six manholes. The pipeline has experienced numerous leaks and is in a state of disrepair.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	109,000	675,000	-	-	-	-	784,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	1,000	Start	Complete	Phase as of 2019			
			2017	2019	Design			



Repairs on the Coachella Canal



Wildflowers along the Coachella Canal

Sanitation



2019 Capital Improvements - Sanitation

Sanitation Projects

Planned Sanitation Fund projects for fiscal 2019 amount to approximately \$24.5 million. Funding includes approximately \$19 million in cash, about \$3.1 million in grants, with the balance of over \$2.4 million funded with Sanitation Capacity Charges.

Capital Improvement Budget - Sanitation

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	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Districtwide Project Allocation		3,190,016	1,027,878	518,840	360,502	749,360	5,846,596
Subtotal Districtwide Project Allocation		3,190,016	1,027,878	518,840	360,502	749,360	5,846,596
WRP 10 Treatment							
Aeration Improvements	WR1032	2,560,000	2,901,462	-	-	-	5,461,462
Biosolids Upgrade	WR10XX	-	-	-	-	400,000	400,000
Chemical System Safety Upgrade	WR1030	720,000	1,405,000	-	-	-	2,125,000
Expansion, Phase 1	WR10XX	-	-	-	750,000	2,000,000	2,750,000
Headworks Improvements	WR10XX	-	500,000	6,250,000	6,939,000	6,939,000	20,628,000
M1 Twin Backup Generators and Automatic Transfer Switch Construction	WR10XX	-	-	-	175,000	3,299,051	3,474,051
New Solar Power Facilities	WR1038	1,165,622	2,510,415	-	-	-	3,676,037
Perimeter Security Wall Installation	WR1021	-	35,200	512,781	-	-	547,981
Process and Lighting Optimization	WR1036	2,240,000	1,742,693	-	-	-	3,982,693
Recycled Water Floating Cover Improvements	WR10XX	-	80,000	2,140,200	-	-	2,220,200
Secondary Effluent Pump Station and Storage Ponds Construction	WR1035	2,400,000	4,715,370	3,300,000	1,700,000	-	12,115,370
Security System Upgrade	WR1020	-	25,000	767,928	-	-	792,928
Subtotal WRP 10 Treatment		9,085,622	13,915,140	12,970,909	9,564,000	12,638,051	58,173,722
WRP 7 Treatment							
Administration Building Construction	WR7XXX	-	-	-	190,000	500,000	690,000
Biosolids Upgrade	WR7011	1,100,000	-	-	-	-	1,100,000
Chemical System Safety Upgrade	WR7015	600,000	1,221,000	-	-	-	1,821,000
Improvements, Phase 1	WR7XXX	-	-	-	324,000	2,000,000	2,324,000
Process Automation	WR7012	-	12,000	-	-	-	12,000
Programmable Logic Controller Upgrade	WR7019	100,000	936,000	884,000	-	-	1,920,000
Security System Upgrade	WR7010	-	-	234,000	500,000	500,000	1,234,000
Subtotal WRP 7 Treatment		1,800,000	2,169,000	1,118,000	1,014,000	3,000,000	9,101,000
WRP 4 Treatment							
Administration Building Construction	WR4XXX	-	-	-	637,000	2,000,000	2,637,000
Chemical System Safety Upgrade	WR4013	1,200,000	1,548,000	-	-	-	2,748,000
Improvements- Plant Processes	WR4XXX	-	-	520,000	5,500,000	6,500,000	12,520,000
Improvements, Phase 1	WR4XXX	-	-	200,000	1,000,000	920,000	2,120,000
Process Automation	WR4XXX	-	12,000	-	-	-	12,000
Security System Upgrade	WR4006	-	20,000	561,000	-	-	581,000
Subtotal WRP 4 Treatment		1,200,000	1,580,000	1,281,000	7,137,000	9,420,000	20,618,000
WRP 2 Treatment							
Plant Improvements	WR0201	100,000	2,552,000	-	-	-	2,652,000
Subtotal WRP 2 Treatment		100,000	2,552,000	-	-	-	2,652,000

Table continues on the following page



Capital Improvement Budget - Sanitation

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	Project Number	Budget FY 2019	Planned			Total 5-Year	
			FY 2020	FY 2021	FY 2022		FY 2023
Collection							
Lift Station 55-10 Abandonment	LS0017	-	220,000	1,874,641	-	-	2,094,641
Lift Station 55-11 Capacity Upgrade - Mecca	LS0005	-	-	24,000	3,191,432	-	3,215,432
Lift Station 55-12 Electrical and Site Upgrade - Home Depot	LS20XX	-	128,000	902,814	-	-	1,030,814
Lift Station 55-21 Rehabilitation- Desert Mirage	LS0020	80,000	740,733	-	-	-	820,733
Lift Station 80-03 Upgrade- Cook Street	LS19XX	-	128,000	1,000,151	1,000,000	-	2,128,151
Lift Station 80-04 Upgrade- Indian Wells	LS0010	-	80,000	652,154	-	-	732,154
Lift Station 80-06 Upgrade- Country Club Drive	LS0011	-	80,000	826,707	-	-	906,707
Lift Station 80-07 Perimeter Wall Construction - Paxton Drive	LS0012	-	-	-	536,123	-	536,123
Lift Station 80-13 Upgrade- Grand Champion	LS20XX	-	-	112,000	1,034,657	-	1,146,657
Lift Station 80-16 Upgrade- Bob Hope Drive	LS0013	-	64,000	831,499	-	-	895,499
Lift Station 81-01 Upgrade- Washington Street	LS0019	844,132	211,033	-	-	-	1,055,165
Lift Station 81-03 Capacity Upgrade and Force Main - Burr Street	LS0001	2,800,000	2,400,926	-	-	-	5,200,926
Sewer Manhole Rehabilitation- Rancho Mirage, Palm Desert, and La Quinta	SA19XX	-	259,200	1,640,847	-	-	1,900,047
Sewer Manhole Rehabilitation Project - Rancho Mirage, Palm Desert, and La Quinta	SA1805	-	337,965	337,965	337,966	-	1,013,896
Sewer Pipeline and Manhole Replacement and Rehabilitation- Mecca	SA1601	-	192,000	1,773,732	2,000,000	-	3,965,732
Sewer Pipeline Rehabilitation- Avenida Juarez	SA1901	28,800	374,837	-	-	-	403,637
Sewer Pipeline Rehabilitation- Avenue 50	SA21XX	-	-	676,830	-	-	676,830
Sewer Pipeline Rehabilitation- Cedar Crest	SA21XX	-	-	36,000	771,106	-	807,106
Sewer Pipeline Rehabilitation- Fairway Drive	SA1603	-	48,000	635,766	-	-	683,766
Sewer Pipeline Rehabilitation- Fred Waring Drive	SA1403	533,764	383,441	-	-	-	917,205
Sewer Pipeline Relocation - Bob Hope Drive	SA1501	-	96,000	367,715	-	-	463,715
Subtotal Collection		4,286,696	5,744,135	11,692,821	8,871,284	-	30,594,936
Nonpotable Water Pipeline Connection							
Annenberg (aka Sunnylands) Golf Club	NP20XX	-	238,000	3,000,000	2,600,000	-	5,838,000
Desert Island Country Club	NP19XX	-	228,000	2,500,000	3,000,000	-	5,728,000
Emerald Desert Country Club	NP1602	20,000	447,000	-	-	-	467,000
Forest Lawn	NP21XX	-	-	209,000	500,000	1,000,272	1,709,272
Marriott Desert Springs North Course	NP1702	30,000	1,880,000	-	-	-	1,910,000
Marriott Shadow Ridge	NP1701	200,000	3,672,000	-	-	-	3,872,000
Mission Hills Country Club	NP21XX	-	-	238,000	2,500,000	3,100,000	5,838,000
Nonpotable Water Pipeline Connection - Bermuda Dunes Country Club	C01506	-	250,000	2,450,000	-	-	2,700,000
Nonpotable Water Pipeline Connection - Shadow Hills North Golf Course	NP20XX	-	215,000	2,340,000	-	-	2,555,000
Outdoor Resort RV Park	NP21XX	-	-	238,000	2,600,000	3,000,000	5,838,000
Palm Desert Resort Country Club	NP1802	100,000	1,574,000	-	-	-	1,674,000
Rancho Mirage Country Club	NP19XX	-	238,000	4,500,000	1,100,000	-	5,838,000
Springs Country Club	NP19XX	-	238,000	2,600,000	3,000,000	-	5,838,000
Suncrest Country Club	NP21XX	-	-	366,000	1,200,000	1,500,000	3,066,000
T1 Pump Station Replacement	NP1807	1,600,000	6,000,000	-	-	-	7,600,000
Tamarisk Country Club	NP20XX	-	238,000	4,500,000	1,100,000	-	5,838,000
The Oasis Country Club	NP1803	100,000	4,204,000	-	-	-	4,304,000
Westin Mission Hills Country Club	NP21XX	-	-	238,000	2,600,000	3,000,000	5,838,000
Woodhaven Country Club	NP1804	100,000	1,400,000	-	-	-	1,500,000
Subtotal Nonpotable Water Pipeline Connection		2,150,000	20,822,000	23,179,000	20,200,000	11,600,272	77,951,272
Grant Projects							
Sewer Pipeline, Force Main, and Lift Station Home Construction- San Antonio Del Desierto Mobile Park	GR0016	2,700,000	-	-	-	-	2,700,000
Subtotal Grant Projects		2,700,000	-	-	-	-	2,700,000
Total Sanitation		24,512,334	47,810,153	50,760,570	47,146,786	37,407,683	207,637,526



2019 Capital Improvements - Sanitation

Project ID: WR1032								
WRP 10 - Aeration Improvements								
Project Description & Justification	Design and construct new aeration diffusers, valves, and piping within Plants B and C center aeration channels, clarifier gates, return waste activated sludge pumps and meters, new electrical conduits and conductors. This project will also replace froth spray pumps, and replace Plant C clarifier drain valves. The existing pumps, meters, and gates are inefficient and are more than 15 years old. The improvements will improve treatment by eliminating sludge blanket variation within the clarifiers. The project will maximize treatment capacity, provide more efficient air distribution, improve process efficiency, and increase redundancy.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	239,000	739,000	2,560,000	2,901,462	-	-	-	6,439,462
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	(15,000)	(12,000)	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Operations cost reduction due to reduced breakdowns requiring repairs. Newer pumps are more energy efficient resulting in electrical cost reductions.								
Nonfinancial Impact								
Once completed, all of the clarifiers and appurtenances of WRP 10 will be able to meet the service life requirement of approximately 20 years. The project will improve overall operations of WRP 10 and ensure compliance with regulatory requirements. The improvement will help maintain safe access into the lift station and avoid confined space entry.								

Project ID: WR1030								
WRP 10 - Chemical System Safety Upgrade								
Project Description & Justification	Design and construct upgrades to the chlorination building to conform to the chemical system safety requirements of the 2013 California Fire Code. State and Federal Risk Management Plans require chlorine gas to be reduced to maximum allowable concentrations before reaching the public population, in the event of an accidental release. The project will also design and install closed circuit television cameras for the chlorine building.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	104,000	138,000	720,000	1,405,000	-	-	-	2,367,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	2,500	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Additional O&M cost for new chlorine gas scrubbers.								
Nonfinancial Impact								
State and Federal Risk Management Plans (RMP) require gas scrubbers in the event of an accidental release (leak), to reduce chlorine gas to maximum allowable concentrations before reaching the public population. The upgrades planned will bring District facilities into compliance with RMP and the requirements of the 2013 California Fire Code.								



Project ID: WR1038								
WRP 10 - New Solar Power Facilities								
Project Description & Justification	The project will install a new solar generation facility that will generate approximately 1.7 megawatts of power at WRP 10. The new solar facility will provide CVWD with an affordable power source over the next 20 years, while reducing the plant's energy consumption. This project is also included as a Strategic Initiative Project in CVWD's adopted Fiscal Year 2018 Strategic Plan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	284,840	1,165,622	2,510,415	-	-	-	3,960,877
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	29,640	(430,500)	Start	Complete	Phase as of 2019			
			2017	2020	Construction			
Other Financial Impact								
Estimated energy savings of 3,636 Megawatt-hours equates to approximately \$430,500 per year.								
Annual Operating Cost Impact								
Savings of \$430,500 due to reduced power bills from SCE. Additional cost due to CVWD personnel cleaning the solar panels 3-6 times per year and monitoring energy production. Medium voltage equipment will be owned and maintained by SCE at an approximate cost of \$21,000 per year.								

Project ID: WR1036								
WRP 10 - Process and Lighting Optimization								
Project Description & Justification	Implement recommendations for process optimization at WRP 10 and lighting efficiency by the Energy Coalition. The project will reduce annual electricity usage by implementing measures to provide more efficient process operation, including site and building lighting.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	348,000	2,240,000	1,742,693	-	-	-	4,330,693
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	(260,000)	Start	Complete	Phase as of 2019			
			2018	2020	Construction			
Other Financial Impact								
Reduce annual electricity usage by implementing measures to provide for more efficient process operations and site and building lighting.								

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Project ID: WR1035

WRP 10 - Secondary Effluent Pump Station and Storage Ponds Construction

Project Description & Justification	Design and construct a new secondary effluent pump station and storage ponds at WRP 10 to replace the existing and deteriorated secondary effluent pump station. Construction of a new pump station and additional effluent storage ponds will result in more efficient operation and enable CVWD to be able to meet future effluent pumping needs. The Project will replace equipment that is at the end of its useful life. This project is complementary to the Palm Desert Ground Water Replenishment Facility Project.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	2,400,000	4,715,370	3,300,000	1,700,000	-	12,115,370
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	(4,500)	Start	Complete	Phase as of 2019			
			2018	2022	Construction			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
The existing secondary effluent pump station is aging and needs replacement. The new pump station and additional storage ponds will improve existing operational flexibility and efficiency. The new improvements will provide redundancy and will provide for additional flow capacity.								

Project ID: WR7011

WRP 7 - Biosolids Upgrade Project

Project Description & Justification	Design and construct solids handling facilities inside a new building to accommodate gravity belt thickening and centrifuge-dewatering equipment. The project will replace the existing facilities that are reaching the end of their useful lives. Installation of equipment will provide for redundancy and increased solids production as plant flow rates increase.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	5,541,000	6,834,470	1,100,000	-	-	-	-	13,475,470
Funding Source (%)	Pay-as-you-go		Restricted					
	50%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	50%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	7,500	Start	Complete	Phase as of 2019			
			2015	2019	Construction			
Other Financial Impact								
Additional labor cost to operate and maintain the equipment and additional electrical requirements for dewatering equipment operation.								
Nonfinancial Impact								
The new equipment will provide redundancy and additional solid handling capability as treatment capacity and flows increase at WRP 7. CVWD has selected the new equipment which will provide a best fit for operating needs, efficiency in design, and efficiency in construction. Equipment will be sized to provide additional solids-handling capability as the treatment plant expands in the future.								



Project ID: WR7015

WRP 7 - Chemical System Safety Upgrade

Project Description & Justification	The project includes the design and construction upgrades to the chlorination and sulfonation buildings to conform to chemical system safety requirements of the 2013 California Fire Code. State and Federal Risk Management Plans require gas scrubbers to reduce chlorine gas to maximum allowable concentrations before reaching the public population, in the event of an accidental release. The project will also include design and installation of closed circuit television cameras for the main entrance and chemical and sulfonation buildings.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	96,000	140,000	600,000	1,221,000	-	-	-	2,057,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	2,500	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Additional O&M and electrical costs due to installation of new equipment.								
Nonfinancial Impact								
State and Federal Risk Management Plans (RMP) require gas scrubbers in the event of an accidental release (leak), to reduce chlorine gas to maximum allowable concentrations before reaching the public population. The upgrades will bring District facilities into compliance with RMP and the requirements of the 2013 California Fire Code.								

Project ID: WR7019

WRP 7 - Programmable Logic Controller Upgrade

Project Description & Justification	This project will consist of rehabilitating and replacing all obsolete Programmable Logic Controllers (PLC) and control panels. It will also upgrade the plant's communication systems to fiber optic network and allow future treatment expansions. Additionally, it will include a thorough investigation and evaluation of the existing condition of equipment and wiring provide an accurate as-built representation of the electrical controls system.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	495,000	100,000	936,000	884,000	-	-	2,415,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,500	500	Start	Complete	Phase as of 2019			
			2017	2021	Design			
Annual Operating Cost Impact								
New PLC and fiber optic network will allow savings from ongoing maintenance and keep WRP7 disruptions to a minimum.								
Nonfinancial Impact								
The new PLC's and fiber optic network will increase compatibility with existing equipment within the treatment plant. This upgrade will also facilitate the integration to the new SCADA system. Additionally, the knowledge, training, and experience required to program and service these new devices are already part of the technicians' skillset.								

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Project ID: WR4013

WRP 4 - Chemical System Safety Upgrade

Project Description & Justification	The project includes the design and construction upgrades to the chlorination and sulfonation buildings to conform to chemical system safety requirements of the 2013 California Fire Code. State and Federal Risk Management Plans require gas scrubbers to reduce chlorine gas to maximum allowable concentrations before reaching the public population, in the event of an accidental release. The project will also include design and installation of closed circuit television cameras for the main entrance and chemical and sulfonation buildings.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	95,000	239,000	1,200,000	1,548,000	-	-	-	3,082,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	-	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Additional O&M and electrical cost for the new equipment.								
Nonfinancial Impact								
State and Federal Risk Management Plans (RMP) require gas scrubbers in the event of an accidental release (leak), to reduce chlorine gas to maximum allowable concentrations before reaching the public population. The upgrades planned for Chlorination and Sulfonation Building at WRP 4 will bring District facilities into compliance with RMP and the requirements of the 2013 California Fire Code.								

Project ID: WR0201

WRP 2 - Plant Improvements

Project Description & Justification	An engineering study was completed in August 2016 for the plant and process evaluations. The study recommended construction of a standby aerated pond as well as replacement of pond liner and upgrade of aerators to improve process efficiency and ensure regulatory compliance. This project provides for the implementation of preliminary engineering report recommendations. This project will also include demolition of existing, out of service, activated sludge treatment plant.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	81,000	67,000	100,000	2,552,000	-	-	-	2,800,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	10,000	24,000	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Additional cost for operation and electricity for four new 5 hp aerators.								
Nonfinancial Impact								
The project will provide CVWD with options to serve the residents of North Shore and meet potentially more stringent regulatory effluent limits. The project will also provide for a stationary backup power for LS 55-10.								



Project ID: LS0020

Lift Station 55-21 Rehabilitation - Desert Mirage

Project Description & Justification	Design and construct new pumps, piping, electrical cabinets, building, generator, controls, and other site features. The lift station improvements will accommodate growth in the community of Thermal per the Sewer Collection System Master Plan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	80,000	740,733	-	-	-	820,733
Funding Source (%)	Pay-as-you-go		Restricted					
	50%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		50%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	3,500	1,500	Start	Complete	Phase as of 2019			
			2019	2020	Design			
Other Financial Impact								
Additional electrical energy will be consumed and additional time to operate and maintain the new equipment on an annual basis.								
Nonfinancial Impact								
The project will maximize collection capacity and increase redundancy/reliability. The improvements will eliminate the potential for Sanitary System Overflows (SSO), which may result in Clean Water Act fines up to \$25,000 per day.								

Project ID: LS0019

Lift Station 81-01 Upgrade - Washington Street

Project Description & Justification	Design and construct a new 12-foot diameter wet well, pumps, piping, electrical cabinets, generator, controls, perimeter block wall, and other site features. The lift station improvements will accommodate growth in the communities of Thousand Palms, Palm Desert, and Riverside County per the Sewer Collection System Master Plan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	379,000	844,132	211,033	-	-	-	1,434,165
Funding Source (%)	Pay-as-you-go		Restricted					
	50%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		50%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	3,500	1,500	Start	Complete	Phase as of 2019			
			2018	2020	Construction			
Other Financial Impact								
Additional electrical energy will be consumed and additional time to operate and maintain the new equipment on an annual basis.								
Nonfinancial Impact								
The project will maximize collection capacity and increase redundancy/reliability. The improvements will eliminate the potential for Sanitary System Overflows (SSO), which may result in Clean Water Act fines up to \$25,000 per day.								

2019 Capital Improvements - Sanitation

Project ID: LS0001

Lift Station 81-03 Capacity Upgrade and Force Main - Burr Street

Project Description & Justification	Design and construct a new 16-foot diameter wet well, pumps, odor control, motor control center building, piping, electrical cabinets, generator, controls, perimeter block wall, gravity sewer pipeline and force-main. The new lift station will accommodate growth in the communities of Indio, La Quinta, and Palm Desert per the Sewer Collection System Master Plan. Construct a new 18-inch force main from LS 81-03 to WRP 7 to provide redundancy to the existing 18-inch force main. The existing force main is in need of repair.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	187,000	498,000	2,800,000	2,400,926	-	-	-	5,885,926
Funding Source (%)	Pay-as-you-go		Restricted					
	50%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		50%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	3,500	1,500	Start	Complete	Phase as of 2019			
			2015	2020	Construction			
Other Financial Impact								
Additional electrical energy will be consumed and additional time to operate and maintain the new equipment on an annual basis.								
Nonfinancial Impact								
The project will maximize collection capacity and increase redundancy/reliability. The improvements will eliminate the potential for Sanitary System Overflows (SSO), which may result in Clean Water Act fines up to \$25,000 per day.								

Project ID: SA1901

Sewer Pipeline Rehabilitation- Avenida Juarez

Project Description & Justification	Replace approximately 800 linear feet of existing 8-inch gravity sewer pipeline and appurtenances within Cathedral City. The sewer rehabilitation will address existing sags and longitudinal cracks.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	28,800	374,837	-	-	-	403,637
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	(9,500)	-	Start	Complete	Phase as of 2019			
			2019	2020	Design			
Other Financial Impact								
Reduce annual operating costs for labor and equipment necessary to clean the sewer pipelines to maintain level of service.								
Nonfinancial Impact								
The project will maximize collection capacity and increase redundancy/reliability. The improvements will eliminate the potential for Sanitary System Overflows (SSO), which may result in Clean Water Act fines up to \$25,000 per day.								



Project ID: SA1403								
Sewer Pipeline Rehabilitation- Fred Waring Drive								
Project Description & Justification	Replace approximately 1,800 linear feet of existing 10-inch gravity sewer pipeline and appurtenances within the City of Palm Desert. The sewer rehabilitation will address existing sags and longitudinal cracks.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	79,000	-	533,764	383,441	-	-	-	996,205
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	(9,500)	-	Start	Complete	Phase as of 2019			
			2014	2020	Construction			
Other Financial Impact								
Reduce annual operating labor and equipment cost necessary to clean the sewer pipeline to maintain level of service.								
Nonfinancial Impact								
The project will maximize collection capacity and increase redundancy/reliability. The improvements will eliminate the potential for Sanitary System Overflows (SSO), which may result in Clean Water Act fines up to \$25,000 per day.								

Project ID: NP1602								
Nonpotable Water Pipeline Connection- Emerald Desert Country Club								
Project Description & Justification	Design and construct a nonpotable water pipeline and meter connection from the 24-inch high pressure distribution piping system to Emerald Desert RV Resort. The connection will allow the resort to reduce its reliance on groundwater for turf irrigation purposes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	111,000	90,000	20,000	447,000	-	-	-	668,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2015	2020	Construction			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
This project will expand the CVWD's service area for the delivery of nonpotable water. Connecting this project to nonpotable water delivery system will save approximately 150 acre-feet of groundwater per year.								

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Project ID: NP1702

Nonpotable Water Pipeline Connection- Marriott Desert Springs North Course

Project Description & Justification	Design and construct a nonpotable water pipeline and meter connection from the 24-inch low pressure distribution piping system to Marriott Desert Springs North Course. The connection will allow the golf course to reduce its reliance on groundwater for turf irrigation purposes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	21,000	32,000	30,000	1,880,000	-	-	-	1,963,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
This project will expand the CVWD's service area for the delivery of nonpotable water. Connecting this project to nonpotable water delivery system will save approximately 1,450 acre-feet of groundwater per year.								

Project ID: NP1701

Nonpotable Water Pipeline Connection- Marriott Shadow Ridge

Project Description & Justification	Design and construct a nonpotable water pipeline and meter connection from the future 18-inch low pressure distribution piping system to Marriott Shadow Ridge. The connection will allow the golf course to reduce its reliance on groundwater for turf irrigation purposes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	119,000	53,000	200,000	3,672,000	-	-	-	4,044,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
Connecting this project to nonpotable water delivery system will save approximately 1,400 acre-feet of groundwater per year.								



Project ID: NP1802								
Nonpotable Water Pipeline Connection- Palm Desert Resort Country Club								
Project Description & Justification	Design and construct a nonpotable water pipeline, meter connection, and pump capacity upgrade from WRP 10's nonpotable water distribution system to Palm Desert Resort Country Club. The connection will allow the golf course to reduce its reliance on groundwater for turf irrigation purposes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	126,000	100,000	1,574,000	-	-	-	1,800,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2017	2020	Design			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
Connecting this project to nonpotable water delivery system will save approximately 886 acre-feet of groundwater per year.								

Project ID: NP1807								
T1 Pump Station Replacement								
Project Description & Justification	The project will replace the existing, outdated T1 pump station and construct a replacement pump station to provide approximately 7,300 gallons per minute additional flow capacity for the low-pressure nonpotable water system and 9,000 GPM additional flow capacity for the high pressure nonpotable water delivery system. Both low and high pressure nonpotable water delivery systems will also be equipped with one standby pump. The new pump station will also require construction of a new motor control center building, wet well, and interconnecting piping between the recycled water pipeline and existing equalization basin. This project is required to support expansion of nonpotable water delivery to five new projects on the high pressure system and two new projects on the low pressure system.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	400,000	1,600,000	6,000,000	-	-	-	8,000,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2017	2019	Construction			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
This project is required to support expansion of the nonpotable water low and high pressure systems for connecting five new high pressure and two new low pressure connections in design at this time. The project will also expand CVWD's service area for the future delivery of nonpotable water.								

2019 Capital Improvements - Sanitation

Project ID: NP1803

Nonpotable Water Pipeline Connection- Oasis Country Club

Project Description & Justification	Design and construct a nonpotable water pipeline, meter connection, and pump capacity upgrade from WRP 10's nonpotable water distribution system to The Oasis Country Club. The connection will allow the golf course to reduce its reliance on groundwater for turf irrigation purposes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	244,000	100,000	4,204,000	-	-	-	4,548,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2017	2020	Design			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								
Nonfinancial Impact								
This project will expand the CVWD's service area for the delivery of nonpotable water. Connecting this project to nonpotable water delivery system will save approximately 654 acre-feet of groundwater per year.								

Project ID: NP1804

Nonpotable Water Pipeline Connection- Woodhaven Country Club

Project Description & Justification	Design and construct a nonpotable water pipeline, meter connection, and pump capacity upgrade from WRP 10's nonpotable water distribution system to Woodhaven Country Club. The connection will allow the golf course to reduce its reliance on groundwater for turf irrigation purposes.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	124,000	100,000	1,400,000	-	-	-	1,624,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	2,000	1,000	Start	Complete	Phase as of 2019			
			2017	2020	Design			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment. Connecting this project to nonpotable water delivery system will save approximately 857 acre-feet of groundwater per year.								
Nonfinancial Impact								
This project will expand CVWD's service area for the delivery of nonpotable water.								

Project ID: GR0016

Sewer Pipeline, Force Main, and Lift Station Construction - San Antonio Del Desierto Mobile Home Park

Project Description & Justification	Construct approximately 5,000 ft. of 6-inch Force Main, a lift station, and 2,000 ft. of 10-inch gravity sewer pipeline. The proposed sanitary sewer collection facilities will serve the existing San Antonio Del Desierto Mobile Home Park, and adjacent communities along Lincoln Street.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	13,000	707,000	2,700,000	-	-	-	-	3,420,000
Funding Source (%)	Pay-as-you-go		Restricted					
	0%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			84%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	3,000	1,500	Start	Complete	Phase as of 2019			
			2014	2019	Construction			
Other Financial Impact								
Additional time to operate and maintain new equipment.								
Nonfinancial Impact								
The project will provide reliable centralized sewer service to the community. The improvements will eliminate two existing percolation ponds and the potential for Sanitary System Overflows (SSO), which may result in Clean Water Act fines up to \$25,000, per day.								



Stormwater



2019 Capital Improvements - Stormwater

Stormwater Projects

Planned Stormwater Fund projects for fiscal 2019 amount to over \$20 million. All projects are funded by cash.

Capital Improvement Budget - Stormwater

	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
Districtwide Project Allocation		873,437	94,434	30,520	21,206	44,080	1,063,677
Subtotal Districtwide Project Allocation		873,437	94,434	30,520	21,206	44,080	1,063,677
Stormwater							
Coachella Valley Multiple Species Habitat Conservation Plan Constructed Wetlands	SW0044	200,000	3,000,000	3,000,000	3,000,000	-	9,200,000
Coachella Valley Stormwater Channel Bank Protection- Avenue 62 to Avenue 64	SW1701	1,845,000	10,390,925	-	-	-	12,235,925
Coachella Valley Stormwater Channel Improvements- Avenue 54 to Thermal Drop Structure	SW0042	180,000	13,020,000	15,000,000	13,675,000	-	41,875,000
East Side Dike Improvement, Phase 1- Dune Palm Road to Interstate 10	SW1601	100,000	3,215,000	-	-	-	3,315,000
Flood Control - Thousand Palms	SW0004	90,000	410,000	500,000	500,000	500,000	2,000,000
Flood Control System - North Indio	SW0005	8,100,000	7,900,000	15,000,000	15,000,000	9,838,000	55,838,000
Flood Easement Renewal- Whitewater River Stormwater Channel	SW0045	450,000	357,700	-	-	-	807,700
Irrigation Ditch Construction- Fillmore Street	SW1607	493,200	54,800	-	-	-	548,000
Kings Road Regional Stormwater Facility for the Oasis Area	SWXXXX	-	200,000	300,000	500,000	800,000	1,800,000
Levee Certification for Whitewater River Stormwater Channel, Phase 2 - Ramon Road	SW20XX	-	100,000	600,000	-	-	700,000
Bridge to Country Club Drive	SW20XX	-	100,000	600,000	-	-	700,000
Levee Certification for Whitewater River Stormwater Channel, Phase 1- Vista Chino to Ramon Road	SW1602	135,000	165,000	-	-	-	300,000
Martinez Canyon (Avenue 68) Regional Stormwater Facility for the Oasis Area	SW19XX	-	200,000	300,000	500,000	800,000	1,800,000
Rainfall Gauging Stations Evaluation and Installation	SW1606	90,000	10,000	-	-	-	100,000
Slope Rehabilitation- Deep Canyon Stormwater Master Plan, Phase 1- North Cathedral City- Interstate 10 to Whitewater River Stormwater Channel	SW0001	180,000	4,020,000	4,670,000	5,000,000	200,000	14,070,000
Wasteway Channels Improvements	SW0054	6,500,000	-	-	-	-	6,500,000
Subtotal Stormwater		19,128,200	43,128,425	39,370,000	38,175,000	12,138,000	151,939,625
Total Stormwater		20,001,637	43,222,859	39,400,520	38,196,206	12,182,080	153,003,302



Project ID: SW0044

Coachella Valley Multiple Species Habitat Conservation Plan Constructed Wetlands

Project Description & Justification	Design, construct, and establish permanent riparian and wetland habitat within the Coachella Valley Stormwater Channel and Delta Conservation Area in accordance with the Coachella Valley Multiple Species Habitat Conservation Plan.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	284,000	38,000	200,000	3,000,000	3,000,000	3,000,000	-	9,522,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2015	2022	Construction			
Nonfinancial Impact								
CVWD is obligated under the Coachella Valley Multiple Species Habitat Conservation Plan to replace habitat that is periodically altered by flood control and drainage maintenance activities.								

Project ID: SW1701

Coachella Valley Stormwater Channel Bank Protection- Avenue 62 to Avenue 64 and Fillmore Ditch Outfall

Project Description & Justification	This project consists of design, environmental documentation, and construction of concrete bank protection on the west bank side of the Coachella Valley Stormwater Channel (CVSC) adjacent to Water Reclamation Plant No. 4. The project is located between Avenue 62 and Avenue 64, it includes the construction of Avenue 64 Outfall (junction of the Fillmore Street Irrigation Ditch with the CVSC).							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	94,000	163,075	1,845,000	10,390,925	-	-	-	12,493,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	-	Start	Complete	Phase as of 2019			
			2016	2020	Construction			
Annual Operating Cost Impact								
Annual operation and maintenance of the Avenue 64 Outfall will be required once the project is constructed.								
Nonfinancial Impact								
When constructed, project will provide regional flood protection to Water Reclamation Plant 4 and adjacent properties to the west.								

2019 Capital Improvements - Stormwater

Project ID: SW0042

Coachella Valley Stormwater Channel Improvements - Avenue 54 to Thermal Drop Structure

Project Description & Justification	Prepare plans, specifications, and complete environmental documentation for improvements to the Coachella Valley Stormwater Channel from Avenue 54 to the Thermal Drop Structure to increase Stormwater conveyance capacity to the 100-year flood flow in the vicinity of Thermal, thereby reducing area flood hazard.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	884,000	241,000	180,000	13,020,000	15,000,000	13,675,000	-	43,000,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	10,000	-	Start	Complete	Phase as of 2019			
			2014	2022	Design			
Annual Operating Cost Impact								
Maintain the level of vegetation and tree growth between Avenue 56 and Avenue 58 to a level that will allow the conveyance of the 100-year flood flow with a minimum of 4 feet of freeboard within the project limits.								
Nonfinancial Impact								
The project helps to remove the adjacent areas from special flood hazard area and provide regional flood protection to life and property to adjacent lands.								

Project ID: SW1601

East Side Dike Improvement, Phase 1- Dune Palms to Interstate 10

Project Description & Justification	Prepare construction plans, specifications, and environmental documentations for certifying the East Side Dike (Dike) levee from Dune Palms Road to Interstate 10 to the Federal Emergency Management Agency (FEMA) as a regional stormwater facility.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	362,000	123,000	100,000	3,215,000	-	-	-	3,800,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2015	2020	Construction			
Other Financial Impact								
Certification of the East Side Dike from Interstate 10 to North Shore area (Phase 2) as a regional flood control facility is planned beyond 2023. The financial impact of this phase is not available at this time.								
Nonfinancial Impact								
Construction of the proposed improvements will help to certify the East Side Dike for compliance with FEMA's 100-Year Flood design standard. It also helps to remove existing developments such as the Talavera Development and Wastewater Reclamation Plant 7 from a special flood hazard area.								



Project ID: SW0004								
Flood Control- Thousand Palms								
Project Description & Justification	Design and construct a series of levees and channels to protect a portion of Thousand Palms and North Cathedral City from flooding. The project will collect flows from the alluvial fans to the north and convey them to the existing Sun City Palm Desert flood control system.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	4,556,000	58,000	90,000	410,000	500,000	500,000	500,000	6,614,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	25,000	-	Start	Complete	Phase as of 2019			
			2012	2025	Design			
Other Financial Impact								
The construction of the project will be performed in four phases beyond 2023 in the amount of \$73,500,000.								
Annual Operating Cost Impact								
The operating and maintenance cost is associated with the requirement of collecting sediment at the downstream portion of the facility and transporting for redistribution at the upstream end of Reach 3 to maintain existing blow sand or sediment movement for the fringe toed lizard.								
Nonfinancial Impact								
The project will help to provide flood protection and maintain a sand transport system for the Coachella Valley Fringe-Toed Lizard Preserve.								

Project ID: SW0005								
Regional Flood Control System- Indio North								
Project Description & Justification	Design and construct a regional flood control conveyance channel for the North Indio Stormwater Master Plan Area to convey the 100-year flood from Del Webb Sun City to Sun City Shadow Hills.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	2,093,000	7,069,000	8,100,000	7,900,000	15,000,000	15,000,000	9,838,000	65,000,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	10,000	-	Start	Complete	Phase as of 2019			
			2014	2023	Construction			
Annual Operating Cost Impact								
Annual operating & maintenance for the stormwater system following construction.								
Nonfinancial Impact								
This project will capture regional stormwater flows from Sun City Palm Desert and convey them through Sun City Shadow Hills and then on to the Coachella Valley Stormwater Channel.								

2019 Capital Improvements - Stormwater

Project ID: SW0045								
Flood Easement Renewal- Whitewater River Stormwater Channel								
Project Description & Justification	Renew flooding easements within the regional stormwater facilities at Desert Cove/Bureau of Indian Affairs (BIA) lands, Del Webb Sun City, and Pulte Shadow Hills.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	76,000	19,000	450,000	357,700	-	-	-	902,700
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2014	2020	Planning			
Nonfinancial Impact								
The renewal of the required easements will provide the District rights to flood the allottee's lands within regional stormwater facilities.								

Project ID: SW1607								
Irrigation Ditch Construction- Fillmore Street								
Project Description & Justification	The Project consists of the construction of 7,000 linear feet earthen berms, 3,200 linear feet of concrete trapezoidal channel, 10 box culverts across Fillmore Street, and a culvert crossing and realignment of Avenue 63 to provide flood protection for the Water Reclamation Plant 4 site.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	6,016,000	5,836,000	493,200	54,800	-	-	-	12,400,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	5,000	-	Start	Complete	Phase as of 2019			
			2015	2019	Construction			
Annual Operating Cost Impact								
Regular operating and maintenance cost for the Fillmore Irrigation Ditch and culverts undercrossing Fillmore Street.								

Project ID: SW1602								
Levee Certification for Whitewater River Stormwater Channel/Coachella Valley Stormwater Channel, Phase 1 - Vista Chino to Monroe Street								
Project Description & Justification	Engage a consultant to prepare design plans and specifications for the deficient levees of the Whitewater River Stormwater Channel between Vista Chino and Ramon Road. This is Phase 1 (also known as Cimarron Reach) covering the levees between Vista Chino and Ramon Road. Hydraulic and geotechnical studies were completed which identified the locations of deficiencies in the levee.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	165,000	48,000	135,000	165,000	-	-	-	513,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2015	2019	Construction			
Nonfinancial Impact								
The project will ensure compliance with the Federal Emergency Management Agency's (FEMA) 100-Year Standard for regional flood protection.								



Project ID: SW1606								
Rainfall Gauging Stations Evaluation and Installation								
Project Description & Justification	Install pilot rainfall-gauging stations at five locations within the Coachella Valley for a better representation of the patterns of rainfall distribution.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	61,000	46,000	90,000	10,000	-	-	-	207,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	3,500	1,500	Start	Complete	Phase as of 2019			
			2015	2019	Construction			
Nonfinancial Impact								
The addition of rainfall gauging stations will provide a better representation of the aerial distribution of observed rainfall storms within the Coachella Valley.								

Project ID: SW1603								
Slope Rehabilitation- Deep Canyon								
Project Description & Justification	Engage a consultant to prepare repair plans and specifications for the Deep Canyon Stormwater Channel and the East Magnesia Channel along Park View Drive.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	204,000	58,000	765,000	85,000	-	-	-	1,112,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2015	2019	Construction			
Nonfinancial Impact								
The design of the repair plans and preparation of the specification will ensure compliance with FEMA design standards for providing regional flood protection.								



Whitewater Stormwater Channel

2019 Capital Improvements - Stormwater

Project ID: SW0001								
Stormwater Master Plan, Phase 1- North Cathedral City- Interstate 10 to Whitewater River Stormwater Channel								
Project Description & Justification	Prepare design plans, specifications, and environmental documentation to construct Phase 1 of the North Cathedral City Stormwater Master Plan (SMP). The scope includes the design and construction of improvements to convey a portion of the 100-Year Flood from the Morongo Wash south of Interstate 10 to the Whitewater River Stormwater Channel.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	1,201,000	108,000	180,000	4,020,000	4,670,000	5,000,000	200,000	15,379,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	10,000	-	Start	Complete	Phase as of 2019			
			2012	2030	Design			
Other Financial Impact								
The design, environmental documentation and construction of Phase 2 of this project is beyond 2023 in the amount of \$34,800,000.								
Annual Operating Cost Impact								
Primarily for sand removal to maintain the capacity of the stormwater facility and existing flow pattern for the 100-Year Flood.								
Nonfinancial Impact								
The design and construction of the Phase 1 of the SMP plan will provide protection to existing development in Northern Cathedral City from the 100-Year Flood including a portion of riverine flows currently conveyed to Thousand Palms. The construction of the project will also provide biological benefits through improved wildlife connectivity and sand transport between the Willow Hole and Whitewater Floodplain Conservation Areas.								

Project ID: SW0054								
Wasteway Channels Improvements								
Project Description & Justification	This project implements recommendations from the Preliminary Design Report (PDR) to repair the existing Wasteway Channel No 1. The wasteway has structural damage and is in a state of disrepair.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	4,967,000	3,000,000	6,500,000	-	-	-	-	14,467,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			
Nonfinancial Impact								
Repair of the wasteway will ensure conveyance of stormwater flows from behind the Detention Dike No. 2 (East Side Dike) during a flooding event and provide the means to drain the canal during an emergency.								



Replenishment



Replenishment Projects

Planned West and East Whitewater Replenishment Funds projects for fiscal 2019 amount to approximately \$9 million and \$8.4 million, respectively. All funding is from cash.

Capital Improvement Budget - Replenishment

	Project Number	Budget		Planned			Total 5-Year
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
West Whitewater Replenishment							
Districtwide Project Allocation		346,078	99,934	30,520	21,206	44,080	541,818
Subtotal Districtwide Project Allocation		346,078	99,934	30,520	21,206	44,080	541,818
Ground Water Replenishment Facility- Palm Desert	NP1801	8,292,900	7,500,000	-	-	-	15,792,900
Nonpotable Water Pipeline Connection- Chaparral Country Club Connection	NP23XX	-	-	-	-	210,000	210,000
Nonpotable Water Pipeline Connection- Marrakesh Country Club Connection	NP22XX	-	-	-	190,000	1,000,000	1,190,000
Nonpotable Water Pipeline Connection- Monterey Country Club Connection	NP23XX	-	-	-	-	210,000	210,000
Nonpotable Water Pipeline Connection- Porcupine Creek Connection	NP23XX	-	-	-	-	210,000	210,000
Nonpotable Water Pipeline Connection- Southwest Community Church/Gerald Ford School	NP20XX	-	1,111,000	-	-	-	1,111,000
Nonpotable Water Pipeline Connection- Thunderbird Country Club Connection	NP22XX	-	-	-	210,000	1,000,000	1,210,000
Nonpotable Water Pipeline Connection- Date Palm Country Club Connection	NP23XX	-	-	-	-	210,000	210,000
Nonpotable Water Pipeline Connection- El Dorado Country Club	NP22XX	-	-	-	190,000	3,800,000	3,990,000
Nonpotable Water Pipeline Connection- Indian Wells Country Club - Deep Canyon Branch	NP22XX	-	-	-	190,000	3,800,000	3,990,000
Nonpotable Water Pipeline Connection- Indian Wells Tennis Garden	NP20XX	-	583,000	600,000	-	-	1,183,000
Nonpotable Water Pipeline Connection- La Rocca Condominium Resort	NP22XX	-	-	-	190,000	3,800,000	3,990,000
Nonpotable Water Pipeline Connection- Marriott Rancho Las Palmas Connection	NP23XX	-	-	-	-	210,000	210,000
Nonpotable Water Pipeline Connection- Morning Side Country Club Connection	NP23XX	-	-	-	-	210,000	210,000
Nonpotable Water Pipeline Connection- Shadow Mountain Country Club Connection	NP22XX	-	-	-	190,000	1,000,000	1,190,000
Nonpotable Water Pipeline Connection- Sunrise Country Club Connection	NP22XX	-	-	-	210,000	1,000,000	1,210,000
Nonpotable Water Pipeline Connection- Vintage Country Club	NP22XX	-	-	-	290,000	1,500,000	1,790,000
Whitewater Groundwater Replenishment Facility Intake Improvements- Radial Gates	UV1801	360,000	-	-	-	-	360,000
Subtotal West Whitewater Replenishment		8,652,900	9,194,000	600,000	1,660,000	18,160,000	38,266,900
Total West Whitewater		8,998,978	9,293,934	630,520	1,681,206	18,204,080	38,808,718
East Whitewater Replenishment							
Districtwide Project Allocation		527,047	91,934	30,520	21,206	44,080	714,787
Subtotal Districtwide Project Allocation		527,047	91,934	30,520	21,206	44,080	714,787
Irrigation Distribution Improvements- La Quinta	C01505	7,000,000	-	-	-	-	7,000,000
Nonpotable Water Pipeline Connection- Palm Royale Country Club	C019XX	-	150,000	1,170,000	-	-	1,320,000
Rancho La Quinta Golf Course Connection	C01805	430,000	-	-	-	-	430,000
Facility Enhanced Monitoring	LV1901	400,000	-	-	-	-	400,000
Subtotal East Whitewater Replenishment		7,830,000	150,000	1,170,000	-	-	9,150,000
Total East Whitewater		8,357,047	241,934	1,200,520	21,206	44,080	9,864,787

West Whitewater Replenishment

Project ID: NP1801

Ground Water Replenishment Facility- Palm Desert

Project Description & Justification	The Palm Desert Ground Water Replenishment Facility Project will provide for replenishing Colorado River Water at WRP 10 and within the Whitewater River Storm Channel. A groundwater replenishment facility will serve to help mitigate historical groundwater level declines and improve groundwater quality within the West Whitewater River Subbasin Area. Preliminary evaluations by CVWD indicate that approximately 25,000 acre feet per year of Colorado River water may be delivered via the Mid-Valley Pipeline for possible replenishment in this area.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	206,000	981,100	8,292,900	7,500,000	-	-	-	16,980,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	36,500	76,000	Start	Complete	Phase as of 2019			
			2017	2020	Construction			
Other Financial Impact								
Additional electricity and labor cost to maintain the new meter vault and monitoring equipment.								

Project ID: UV1801

Whitewater Groundwater Replenishment Facility Intake Improvements- Radial Gates

Project Description & Justification	On January 23, 2018, the Board of Directors awarded a Construction Contract to Canyon Springs Enterprises in the Amount of \$1,805,989 for the Whitewater Groundwater Replenishment Facility Intake Improvements, Specification No. 2017-70. This Project consists of the design of the two new intake structures to replace the existing structures that are used during the "ramp up" of replenishment and are nearing their useful life. The existing structures are located at Replenishment Pond Nos. 1 and 10 and consist of a series of eight 36-inch pipelines. The design includes a bifurcated box structure at Replenishment Pond No. 1, including radial gates, which allow for increased operation and maintenance flexibility by having the ability to divert water immediately between Pond Nos. 1 and 2. The construction will also include a box structure into Pond No. 10, with radial gate, to prevent future erosion from abrasion.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	1,900,000	360,000	-	-	-	-	2,260,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	-	-	Start	Complete	Phase as of 2019			
			2018	2019	Construction			

2019 Capital Improvements - Replenishment

East Whitewater Replenishment

Project ID: C01505								
Irrigation Distribution Improvements- La Quinta								
Project Description & Justification	Design and replace the L4 Pump station and relocate about 18,000 linear feet of the Irrigation Lateral 120.8 from the L4 Pump Station to various golf course and homeowner's association connections. The pump station is under capacity to meet the needs of current and future customers. The irrigation pipeline needs to be replaced and relocated due to capacity constraints and the multiple structures that have encroached upon the pipeline easement.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	2,656,000	147,000	7,000,000	-	-	-	-	9,803,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,500	1,000	Start	Complete	Phase as of 2019			
			2015	2019	Construction			
Nonfinancial Impact								
This project will expand CVWD's service area for the delivery of Colorado River Water and complies with the Source Substitution element (In-Lieu Recharge) within the Coachella Valley Water Management Plan.								

Project ID: C01805								
Rancho La Quinta Golf Course Connection								
Project Description & Justification	Design and construct an irrigation pipeline from existing Irrigation Lateral 118.0-1.2 to The Rancho La Quinta Country Club. The connection will allow The Rancho La Quinta Country Club to reduce its reliance on groundwater for turf irrigation purposes							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	55,000	430,000	-	-	-	-	485,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	1,500	1,000	Start	Complete	Phase as of 2019			
			2017	2020	Construction			
Nonfinancial Impact								
This project will expand the CVWD's service area for the delivery of Colorado River Water and complies with the Source Substitution element (In-Lieu Recharge) within the Coachella Valley Water Management Plan.								

Project ID: LV1901								
Thomas E. Levy Groundwater Replenishment Facility Enhanced Monitoring								
Project Description & Justification	The project consists of installing wells to monitor six new 2" to 6" diameter shallow groundwater downgradient of the Thomas E. Levy (TEL) Groundwater Replenishment Facility. The project will provide additional information used to optimize groundwater replenishment within the East Whitewater River Subbasin Area of Benefit.							
Project Cost (\$)	Expenses Through	Estimated Expenses	Budget					
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
	-	-	400,000	-	-	-	-	400,000
Funding Source (%)	Pay-as-you-go		Restricted					
	100%		Grants/Other	WSBFC	SCC Treatment		SCC Collection	
			0%	0%	0%		0%	
Operating Costs Impact (\$)	O&M	Electricity	Project Schedule					
	400	-	Start	Complete	Phase as of 2019			
			2019	2019	Construction			
Nonfinancial Impact								
Enhances groundwater level monitoring for recharge activities								



Motorpool



2019 Capital Improvements - Motorpool

Motorpool

Planned purchases for vehicles and heavy equipment for fiscal 2019 amount to approximately \$4.6 million. Included in this amount is \$732,000 in rebudgeted equipment from fiscal 2018 and new personnel equipment in the amount of \$33,722. New vehicles and heavy equipment for the various departments are budgeted in the Motorpool Fund. At year-end funds are transferred into the Motorpool Fund from the District's enterprise funds, based on actual benefit of equipment received.

Capital Improvement Budget - Motorpool

Districtwide		Adopted Budget
Motorpool		
Palm Desert - Auto Shop Structure		
Carport		1,900,000
Other		
Districtwide Project Allocation		56,446
Subtotal Districtwide Project Allocation		1,956,446

Department	Division	Year/Make/Model of Vehicle Being Replaced	Replacement Vehicle Type	Adopted Budget
Vehicle and Equipment Replacements				
Communication & Conservation	Water Management	2007 FORD PU 2WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Engineering	Development Services	2006 CHEV PU 2WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Environmental Services	Water Quality	2010 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Facilities & Maintenance	Canal Dist. - Maintenance	2013 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Facilities & Maintenance	Electrical-Air Conditioners	2003 FORD UB TRK 2WD 15K	15K GVWR UTILBED, 4X2	58,800
Facilities & Maintenance	Electronic Technicians	2006 GMC VAN 2WD	1 TON VAN, 4X2	41,800
Facilities & Maintenance	Pump Maintenance	2007 FORD UTILBED TRK 4WD 18K	19K GVWR, FLATBED W/CRANE, 4X4	103,800
Facilities & Maintenance	Stormwater Drainage	2001 SH&E PUMP 6" , TRLR	4" TRAILER MOUNTED PUMP	46,000
Facilities & Maintenance	Stormwater Drainage Crew	2007 FORD FUEL TRUCK 4WD 18K	19K GVWR FUEL TRUCK, 4X4	98,800
Fianance	Warehouse	2005 SELICK FORKLIFT 10K	6K CAT FORKLIFT	39,000
Human Resources	Safety	2006 CHEV PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Operations	Collections Construction	1997 INTL WATER TRUCK 33K	25999K GVWR WATER TRUCK	138,800
Operations	Collections Operations	2008 FORD PU 2WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Operations	Domestic Construction	1998 GMC WATER TRUCK 33K	25999K GVWR WATER TRUCK	138,800
Operations	Domestic Maintenance	2003 BEAVER TRAILER 40K	44K GVWR TRAILER	30,000
Operations	Domestic Meter Repair	2008 FORD UTILBED TRK 2WD 10K	12K GVWR UTILBED TRK 4X2	53,800
Operations	Leak Detection	2005 CHEV PU 2WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Operations	Leak Repair/ Construction	1991 WACKER PUMP	4" TRAILER MOUNTED PUMP	46,000
Operations	Mechanical	2005 CHEVY PU 2WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Operations	Paving	1998 INTRST TRAILER 8.6K	9K GVWR TRAILER	14,000
Operations	Water Quality	2007 FORD UTILBED TRK 18K	19K GVWR UTILBED TRK, 4X4	65,800
Operations	West Shore	2002 INTL MAINTNR TRK 25K	26K GVWR MAINTNR TRK W/CRANE & APU	183,800
Operations	WRP 10	2006 WC CONF SPACE TRLR	TANDEM AXLE ENCLOSED TRAILER	21,000
Service	Meter Readers	2013 FORD PU 2WD 1/2 T	REGULAR CAB PICKUP, 4X2	32,800
Service	Zanjeros	2014 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Service	Zanjeros	2014 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Service	Zanjeros	2014 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Service	Zanjeros	2014 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Service	Zanjeros	2013 FORD PU 4WD 1/2 T	REGULAR CAB PICKUP, 4X4	34,800
Facilities & Maintenance	Electronic- Administration	VEHICLE ADDITION	1 TON VAN, 4X4	53,488
Operations	Administration	VEHICLE ADDITION	FORD EDGE	38,300
Operations	Collections	VEHICLE ADDITION	CHOPPER TRAILER	69,622
Operations	Domestic Water	VEHICLE ADDITION	F350 PICKUP 4 X 2 PU WITH LIFTGATE/VISE	75,807
Operations	WRP 7	VEHICLE ADDITION	OFF ROAD LIFT	75,000
Subtotal Vehicle and Equipment Replacement				1,865,617

Rebudgeted Items from Fiscal 2018

Facilities & Maintenance	Autoshop	2001 DODGE PU 2WD 1/2 T	14K GVW STAKE BED W/LIFT - MP 1821	53,560
Facilities & Maintenance	Canal Dist. - Maintenance	2002 FORD DUMP TRK 12K	18K GVWR UTILBED 4X4 DUMP TRUCK	61,318
Facilities & Maintenance	Electricians	1996 OLYM GEN TLR 100kW	100KW TRAILER MOUNTED GENERATOR	91,000
Facilities & Maintenance	Facilities Maintenance	2000 INTN'T DUMP TRUCK 23K	26K GVWR DUMP TRUCK	66,059
Facilities & Maintenance	Stormwater Drainage	1993 Cat D7H Dozer LGP	CAT D6T	360,058
Facilities & Maintenance	Welding	1997 FRD WELDG TK 4WD 15K	19K GVWR, FLATBED W/CRANE, 4X4	100,213
Subtotal Rebudgeted Items from Fiscal 2017				732,207

Department	Division	New Position	Vehicle Type	Adopted Budget
Vehicles for Additional Personnel				
Operations	Nonpotable Water	Nonpotable Water Crew Chief	REGULAR CAB PICKUP, 4X2	33,722
Subtotal Vehicles for Additional Personnel				33,722
Total Motorpool				4,587,992



Acronyms & Glossary



A/C	Air Conditioner	CHRIS	California Historical Resources Information System
ACH	Automated Clearing House	CIB	Capital Improvement Budget
ACVWDM	Association of Coachella Valley Water District Managers	CIP	Capital Improvement Plan
ADR	Automated Demand Response	CMC	Concrete Mortar Coated
AED	Automated External Defibrillator	CML	Concrete Mortar Lined
AF	Acre-Foot or Acre-Feet	CMMS	Computerized Maintenance Management System
ALAE	Allocated Loss Adjustment Expenses	COBRA	Consolidated Omnibus Budget Reconciliation Act
AMI	Advanced Meter Infrastructure	COLAs	Cost-of-Living Adjustments
AMP	Asset Management Program	COP	Certificates of Participation
AMR	Automated Meter Reading	CPI	Consumer Price Index
AMWA	Association of Metropolitan Water Agencies	CPR	Cardiopulmonary Resuscitation
AOB	Area of Benefit	Cr6	Chromium-6
APN	Assessor's Parcel Number	CRM	Customer Relationship Management
AQMD	Air Quality Management District	CVB	Convention and Visitors Bureau
ARC	Annual Required Contribution	CVCWD	Coachella Valley County Water District
ASSET	Association of Supervisory Support Evaluation Team	CVILC	Coachella Valley Irrigated Lands Coalition
AWWA	American Water Works Association	CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
BDCP	Bay-Delta Conservation Plan	CVRWVG	Coachella Valley Regional Water Management Group
BIA	Bureau of Indian Affairs	CVSC	Coachella Valley Stormwater Channel
BLM	Bureau of Land Management	CVWD	Coachella Valley Water District
BMP	Best Management Practice	CVWDEA	Coachella Valley Water District Employees Association
BPS	Booster Pump Station	CVWMP	Coachella Valley Water Management Plan
CAD	Computer-Aided Design	DCP	Drought Contingency Plan
CAFR	Comprehensive Annual Financial Report	DCSC	Deep Canyon Stormwater Channel
CalPERS	California Public Employee's Retirement System	DDW	Division of Drinking Water
CARB	California Air Resources Board	DHCCP	Delta Habitat Conservation and Conveyance Program
Ccf	One Hundred Cubic Feet	DIP	Ductile Iron Pipe
CCLP	Coachella Canal Lining Project	DMS	Document Management System
CCTV	Closed Circuit Television	DWA	Desert Water Agency
CDSM	Cement Deep Soil Mixing		
CEQA	California Environmental Quality Act		

DWR	Department of Water Resources	ID	Improvement District
EAP	Employee Assistance Program	IID	Imperial Irrigation District
EDU	Equivalent Dwelling Unit	IIPP	Injury Illness Prevention Program
EMS	Energy Management System	I/O	Input / Output
EOC	Emergency Operation Center	IP	Internet Protocol
EPA	Environmental Protection Agency	IRWMP	Integrated Regional Water Management Plan
ERP	Enterprise Resource Planning	IS	Information Systems
ESS	Employee Self-Serve Solution	ISMND	Initial Study Mitigated Negative Declaration
ESU	Equivalent Sewer Unit	ISO	Insurance Services Office
ETL	Extract, Transform, and Load	IXTP	Ion Exchange Treatment Plant
EUM	Effective Utility Management	JHA	Job Hazard Analysis
FCC	Federal Communication Commission	KW	Kilowatt
FEMA	Federal Emergency Management Agency	L4	La Quinta 4 Pump Station
FIRM	Flood Insurance Rate Maps	LAMP	Levee Analysis Mapping Procedure
FSA	Flexible Spending Account	LAN	Local Area Network
FTE	Full-Time Equivalent	LIMS	Laboratory Information Management System
FTP	File Transfer Protocol	LLPT	Local Levee Partnership Team
GAAP	Generally Accepted Accounting Principles	LOMR	Letter of Map Revision
GASB	Governmental Accounting Standards Board	LS	Lift Station
GE	General Electric	MCC	Motor Control Center
GFOA	Government Finance Officers Association	MHPZ	Mission Hills Pressure Zone
GIS	Geographic Information System	MMRP	Mitigation Monitoring & Reporting Program
GLC	Glorious Land Company	MND	Mitigated Negative Declaration
GO	Grant Officer	MOU	Memorandum of Understanding
GPS	Global Positioning System	MP	Mile Post
HDHP	High Deductible Health Plan	MVP	Mid-Valley Pipeline
HDPE	High Density Polyethylene	MWD	Metropolitan Water District
HMI	Human Machine Interface	NEPA	National Environmental Protection Act
HMO	Health Maintenance Organization	NFPA	National Fire Protection Association
HOA	Homeowner's Association	NIL	Noninterference Letter per the Subdivision Map Act
HP	Horsepower	NIRL	Noninterference Review Letter
HSA	Health Savings Account	NPDES	National Pollutant Discharge Elimination System
HVAC	Heating, Ventilation, and Air Conditioning	O&M	Operations & Maintenance

OMPR	Operation, Maintenance, Power, & Replacement	SHPO	State Historical Preservation Office
OPEB	Other Post-Employment Benefits	SLA	Service Level Agreement
OSHA	Occupational Safety & Health Administration	SMPZ	Sky Mountain Pressure Zone
PC	Pumping Charge	SNMP	Salt and Nutrient Management Plan
PCD	Pressure Control Device	SSMP	Sanitary Sewer Master Plan
PCI	Payment Card Industry	SSORP	Sanitary Sewer Overflow Response Plan
PDR	Preliminary Design Report	SWP	State Water Project
PDRF	Palm Desert Replenishment Facility	SWRCB	State Water Resources Control Board
PEPRA	Public Employee Pension Reform Act	SWSC	Supplemental Water Supply Charge
PLC	Programmable Logic Controller	T1	Tertiary Plant 1
PPB	Parts per Billion	TEL	Thomas E. Levy Groundwater Replenishment Facility
PPO	Preferred Provider Organization	USBR	United States Bureau of Reclamation
PUC	Public Utilities Commission	USGS	United States Geological Survey
PVC	Polyvinyl Chloride	UWMP	Urban Water Management Plan
QSA	Quantification Settlement Agreement	VCP	Vitrified Clay Pipe
RAC	Replenishment Assessment Charge	VFD	Variable Frequency Drive
RAS	Return Activated Sludge	VMRS	Vehicle Maintenance Reporting System
RDA	Redevelopment Agency	VPN	Virtual Private Network
RFP	Request for Proposal	VPZ	Valley Pressure Zone
RMP	Risk Management Plan	WAN	Wide Area Network
ROW	Right-of-Way	WAS	Waste Activated Sludge
RTU	Remote Terminal Unit	WIFIA	Water Infrastructure Finance and Innovation Act
SCADA	Supervisory Control and Data Acquisition	WQL	Water Quality Laboratory
SCC	Sanitation Capacity Charge	WRP	Wastewater Reclamation Plant
SCE	Southern California Edison	WSBFC	Water System Backup Facility Charge
SCIF	State Compensation Insurance Fund	WWRSC	Whitewater River Stormwater Channel
SDCWA	San Diego County Water Authority	WWSA	Whitewater Spreading Area
SGMA	Sustainable Groundwater Management Act		

Accrual Basis of Accounting. Method of accounting that recognizes the financial effect of transactions, events and interfund activity when they occur, regardless of the timing of related cash flows. Revenues are recorded when earned and expenses recognized when incurred.

Active. The asset is functioning.

Acre-foot. A unit of volume of water in irrigation. The amount covering one acre to a depth of one foot, equal to 43,560 cubic feet or 325,851 gallons.

Adequacy. 1. When the asset is able to do the job that it is assigned to do (e.g., flow capacity relative to required capacity); 2. Delivery of an acceptable quantity and quality of water at a suitable pressure in response to customer requirements.

Advanced Meter Infrastructure (AMI). Provides more information including data from other sensors, extended meter history or unusual patterns captured by the meter.

Advanced Treatment. A treatment process that involves sophisticated methods to bring about high quality water. Advanced treatment is often associated with drinking water, reuse, or wastewater treatment.

Aeration. A gas transfer unit process that allows for the absorption of gas (most commonly oxygen) by water.

Aerator. A device that brings air into contact with a liquid for the purpose of mixing or transferring gasses from air into the liquid phase.

Air Relief Valve. A valve that allows accumulating gases to escape at the top of the valve and seal closed when displaced by liquid.

All American Canal. An 80-mile (130 km) long aqueduct, located in southeastern California. It conveys water from the Colorado River into the Imperial Valley and to nine cities. It is the Imperial Valley's only water source.

Alluvial Fan. A fan- or cone-shaped deposit of sediment crossed and built up by streams.

Alluvial Fan Flooding. Flooding occurring on the surface of an alluvial fan or similar landform, which originates at the highest spot and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flowpaths.

Appropriation. Authorization of funds restricting expenditure to a designated purpose within a specified time frame.

Appurtenances. Something added to another, more important thing; an appendage.

Aqueduct. A conduit, at or above ground level, to convey water by gravity.

Aquifer. An underground layer of water bearing permeable rock or unconsolidated materials (gravel, sand, silt from which groundwater can be extracted).

ArcGIS. A geographic information system (GIS) for working with maps and geographic information. It is used for creating and using maps, compiling geographic data, analyzing mapped information, sharing and discovering geographic information, using maps and geographic information in a range of applications, and managing geographic information in a database.

Artesian Well. A well in which water flows to the surface under natural pressure without pumping.

Asset. Anything of value such as an area of land, or a building, or an item of plant or equipment or infrastructure that provides service potential or future economic benefits over a period greater than one year, and has a cost that is material (at least \$10,000). Assets are typically classified as either physical, financial (e.g., cash, stocks, debt instruments), or intangible (e.g., intellectual property, goodwill).

Automated Meter Reader (AMR). A method of conveying water meter reading without interfacing directly with the meter or a contact point, normally through radio transmitters.

Balanced Budget. The District's current operating expenses will be paid from current revenues and reserves carried forward from the prior year.

Biosolids. Nutrient-rich organic materials resulting from the treatment of domestic sewage in a treatment facility.

Blower. Mechanical equipment used to pump air.

Bureau of Reclamation (USBR), formerly the United States Reclamation Service. An agency under the U.S. Department of the Interior, which oversees water resource management, specifically as it applies to the oversight and/or operation of numerous diversion, delivery and storage projects it built throughout the western United States for irrigation, water supply, and attendant hydroelectric power generation.

Bypass Line. A pipe designed to divert flow around a pipe segment, typically to enable maintenance or another activity to be performed.

California Environmental Quality Act (CEQA). A California statute passed in 1970, shortly after the United States federal government passed the National Environmental Policy Act (NEPA), to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts.

Channel. An open (nonpressurized) waterway that conveys water between two points.

Check Valve. A controlling device connected to a pipe that only permits flow in one direction.

Chlorination. The process of adding the element chlorine to water for oxidation and disinfection. Chlorine systems can use chlorine gas, hypochlorite solution, or onsite hypochlorite generation.

Chlorinator. A device used to add chlorine to water.

Chromium-6 (Cr-6). A form of the metallic element chromium that is found naturally in common minerals. Also known as hexavalent chromium.

Classic Member. An existing CalPERS member as of December 31, 2012; or a member that has a break in service of more than six months, but returns to service with the same employer.

Coachella Canal. A 123-mile (196 km) aqueduct that conveys Colorado River water for irrigation from the All-American Canal to the Coachella Valley in Riverside County, California.

Collapse. A failed segment of a sanitary sewer in which a portion of the pipe has broken away and invariably blocks the passage of wastewater.

Controller. A device that controls the starting, stopping, or operation of a device or piece of equipment.

Conveyance System. The combination of assets used to deliver an adequate supply of the selected material (water) from one point to another. The conveyance can include piping, pumps, controls (valves), and storage.

Cooling Tower. A tower-like device in which atmospheric air circulates and cools warm water, generally by direct contact (evaporation).

Cyber Attack. Any type of offensive maneuver employed by individuals or whole organizations that target computer information systems, infrastructures, computer networks and/or personal computer devices by various means of

malicious acts, usually originating from an anonymous source that either steals, alters, or destroys a specified target by hacking into a susceptible system.

Delivery System. The piping, valves and related assets that convey water from one point in the operation to another. For example, a delivery system can take water from the intake to the plant or from plant to the customer.

Depreciation. The reduction in value of a long lived asset from use or obsolescence. The decline in value is recognized by a periodic allocation of the original cost of the asset to current operations on an income statement. The District does not show depreciation on its budgetary Statement of Revenues, Expenses, and Changes in Reserve because it is not a cash item.

Diffuser. A device to inject a gas or liquid into water, so that it disperses evenly.

Downtime. The time that water mains or service lines are unavailable for use. Can be a function of a failure and the time to restore service, or can refer to the time required to renew the main or service.

Drain. A gravity system that carries water from a higher level of flow to a lower level, usually via pipe.

Dry Well. A dry compartment of a pumping station where pumps are located.

Effective Utility Management (EUM). A nationally recognized framework designed to help water and wastewater utility managers make practical, systematic changes to achieve excellence in utility performance.

Effluent. An outflow or discharge of liquid waste from a sewer or sewage system.

Enterprise Fund. Proprietary fund type used to report an activity for which a fee is charged to external users for goods or services.

Environmental Protection Agency (EPA or sometimes USEPA).

An agency of the United States federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations, based on laws passed by Congress.

Estuary. An arm of the sea that extends inland to meet the mouth of a river.

Filter. A unit designed with a physical barrier (media or screen) to remove particulate matter from a liquid stream but allows a stream to pass through. May operate by gravity or applied pressure.

Filter Press. A device used to dewater sludge by applying pressure between two plates or belts to force water out and leave a sludge cake.

Flocculation. A sanitation treatment process that applies gentle stirring to bring suspended particles together so that they will form larger, more settleable clumps called floc.

Flocculation Basin. A tank used for formation of floc by gentle stirring.

Forebay. A small reservoir at the head of the pipeline that carries water to the consumer.

Full-Time Equivalent (FTE). A measure of labor requirement equal to the full time use of one worker (e.g., could be one person full time or two people half time).

Fund. Fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources; including all related liabilities and residual equities or balances, with changes segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

Gauge. A device or instrument for measuring and registering a physical property (e.g., pressure gauge).

Geographic Information System (GIS). A computer system for capturing storing, checking, and displaying data related to positions on the Earth's surface.

GDP Price Deflator. An economic metric that accounts for inflation by converting output measured at current prices into constant-dollar GDP.

Headworks. Structures and devices located at the diversion point of a pipe, channel, or treatment process. The beginning or point of origin of a treatment process.

Hydraulic. Operated by the pressure created by forcing water through a comparatively narrow pipe or orifice.

Hydrologic. Of or dealing with the science of occurrence, circulation, distribution, and properties of the waters of the earth and its atmosphere.

Inflow. Sewage that enters into a sewer system at points of direct connection from various sources.

Influent. A stream of liquid that enters a location; such as a water plant intake.

Intake. A structure or device placed in a surface water source to permit the withdrawal of water.

Interruption. An event in which the customer is deprived of a proper level of service. For water service, it typically implies loss of flow and pressure to a few customers for brief periods.

Ion Exchange. A reversible chemical process to exchange ions in solution with ions from an insoluble solid medium.

Lagoon. A detention or holding pond used to contain sludge that may promote evaporation, sedimentation, or biological oxidation.

Manhole. The opening in a vault to allow access for maintenance, inspections, and operations to pipelines. In sewer lines, this can interface directly with the run of flow through adjacent sewer pipe.

Meter. A device that measures and records the quantity of a substance, such as water or energy that has passed through it during a specified period.

Metropolitan Water District of Southern California (MWD).

The largest supplier of treated water in the US. It is a cooperative of 14 cities and 12 municipal water districts that indirectly provides water to 18 million people in its 5,200-square-mile (13,000 km²) service area.

Odor Control. The elimination of odors by aeration, chemical oxidation, adsorption, or other means.

Offset. A reduction in one or more budget line items (accounts).

Outage. An event in which the customer is deprived of a proper level of service. For water service, it typically implies loss of flow and pressure to multiple customers for extended periods.

Overflow. A sewer overflow is a discharge of untreated, raw sewage into local waterways. Overflows occur when there is too much wastewater for the sewer system or treatment plants to handle, such as after heavy rainstorms.

Peak Demand. The experienced or calculated maximum requirements for management of wastewater or delivery of water expressed as a unit of time (year, month, day, hour, minute).

PEPRA Member. A new hire who has no prior membership in any California public retirement system prior to January 1, 2013; or who is rehired by a different CalPERS employer after a break in service of greater than six months.

Pipe. A conduit that conducts or diverts water from one location to another.

Producer Price Index (PPI). This program measures the average change over time in the selling prices received by domestic producers for their output.

Pressure. The amount of force per unit area. In water, this is expressed in pounds per square inch (psi) or an equivalent of the weight of a water column at a specific height (feet) exerted in a confined space.

Pressure Zone (PZ). An area within a distribution system in which the pressure is maintained by pumps, tank levels, or regulators independent from any adjacent pressure zone (separated by valves).

Pump. A mechanical device for raising or lifting water, pushing it, and changing flow and pressure.

Pump Station. A structure containing pumps and appurtenant piping, valves, and other mechanical and electrical equipment for pumping raw water. Also called a lift station.

Quagga Mussel. A subspecies of freshwater mussel, an aquatic bivalve mollusk. It is one of seven Dreissena species and has an average life span of 3 to 5 years. Quagga Mussels were discovered in Lake Mead on January 6, 2007 and all reservoirs, lakes and watersheds receiving raw Colorado River water have been exposed to Quagga Mussels.

Quality. Measures the performance of assets to perform their function toward meeting regulatory and nonregulatory goals; these are often associated with water quality.

Redevelopment Agency (RDA). Created for the purpose of improving, upgrading, and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It is a legal and separate public body, with separate powers and a separate budget from the City. In February 2012 all Redevelopment Agencies within the State of California were dissolved.

Regulator. A device for controlling flow, movement, or pressure.

Release Piping System. A piping system, including pipes, fittings, and valves, for discharging stored water from a dam or impoundment; as opposed to a spillway that discharges only when the water level reaches an overflow level.

Reliability. The probability that a system performs a specified function or mission under given conditions for a prescribed time.

Replenish. A hydrologic process where water, usually from an imported source, is moved through layers of sand, dirt, and rock to groundwater.

Reserves. The amount of cash and investments in a fund, plus the accounts receivable, less the accounts payable, and amounts due to others in that fund.

Reservoir. An impounded body of water or controlled lake, in which water can be collected and stored.

Sacramento-San Joaquin River Delta or California Delta. An expansive inland river delta and estuary in Northern California in the United States. The Delta is formed at the western edge of the Central Valley by the confluence of the Sacramento and San Joaquin rivers, lying just east of where the rivers enter Suisun Bay.

Screen. A device to retain or remove debris and suspended solids.

Secondary Clarifier. A process designed to facilitate gravity removal of suspended matter from a liquid by settling (usually after flocculation in water treatment).

Septage Receiving Facility. A structure used to accept and process septic system waste.

Service Line. Pipe from the common distribution main to provide water to individual customers for domestic or fire service.

Siphon. A closed conduit in which enough pressure is created to permit a fluid to flow upward, then transferred across a higher elevation to a discharge point at a lower elevation.

Sludge. The by-product of drinking water and wastewater treatment processes that contains most of the solids (residuals). Sludge contains water, and many processes are used to remove the sludge from the liquid treatment, as well as significant portions of the water in the by-product.

State Water Project (SWP). The world's largest publicly built and operated water and power development and conveyance system. The original purpose of the project was to provide water for arid Southern California, which lacks adequate local water resources to provide for the growth the region has experienced.

Storage. A vessel that can provide a readily available water supply and can be used to account for variations in demand.

Storage Tank. A container for storing liquids or gases.

Submersible Pump. A device designed to fit inside a tank or well casing used to operate below the water level and lift water to facilities above ground, or directly to customers.

Subsidence. The gradual sinking of landforms to a lower level resulting from earth movements.

SunGard. A multi-national company based in Wayne, Pennsylvania, which provides software and services to education, financial services, and public sector organizations.

Supervisory Control and Data Acquisition (SCADA). A computer monitored alarm, response, control, and data acquisition system used by drinking water facilities to monitor operations.

Supplemental Request. A budget request for funds to purchase items that exceed a department's base budget. A supplemental request may be recurring or nonrecurring.

Tank. A vessel or container used to hold water or other liquid.

Tap. The connection to a main for a lateral service line, hydrant, or other inlet or outlet.

Telemetry. Communication technologies that allow the remote measurement and status reporting of information.

Transmission Main. A large water main that transports water from the main supply or source, to a distant area where the water is then further distributed. Finished water transmission mains usually have no or few connections.

Tunnel. An underground passage for conveyance of water, vehicles, piping, or conduit.

Valve. A device to regulate or isolate the flow of water.

Vault. An underground structure to house pumps, meters, etc.

Wastewater Treatment. The planned actions taken on sewer discharges that may remove solids, particulate matter, chemical contaminants, or render biological organisms inert for placement of water back into the environment and proper handling of sludge.

Water Distribution. A network of pipe, pumps, and storage facilities to transport potable water from the source or treatment facility to the consumer.

Water Meter. A device designed to accurately measure flow

passing through it. Meters are of various types and materials, and function with accuracy within certain flow ranges.

Water Quality. Various measures by which materials (contaminants) and appearance (aesthetics) are compared against what are considered appropriate levels for acceptable water.

Water Quality Monitoring. Instrumentation for measuring the quality of water.

Watershed. The area of land that catches rain and snow, and drains or seeps into a marsh, stream, river, lake, or groundwater aquifer.

Water Tender. A trailer with a small pump used to store water. It is used to provide water to affected customers during emergency water outages and for community outreach and special events.

Water Treatment. Any process that intentionally alters and improves the chemical, biological, or physical characteristics of water.

Well. 1. A subsurface source of water that is generally accessed through a drilled casing and pipe into the aquifer; 2. The entire system of the underground water source, pipe casing, pump, etc. Also called a borehole.

Wellhead Protection. A system of deterrents to guard against potential groundwater contamination through the well casing. Includes well curb or cap, fences, etc.

Wet Well. A chamber in which water or wastewater is collected and to which a suction pump is connected.

Wetland. An area saturated by surface or groundwater at sufficient frequency and duration to support vegetation adapted for life in saturated soil conditions.

Whitewater River. A small permanent stream in western Riverside County and southwestern San Bernardino County, California.

Whitewater River Stormwater Channel. The naturally occurring portion of the storm channel that runs from the Whitewater area north of Palm Springs to Washington Street.

Working Capital. The amount of cash and investments in a fund, plus the accounts receivable, less the accounts payable and amounts due to others in that fund. Also referred to as reserves.



Facts and Figures

as of 12-31-17

General Information

Employees (Budgeted Positions)	555
Total service area	639,857 acres
Total service area	1,000 sq. miles

Domestic Water

Service information

Population served	290,000
Active accounts	106,717
Average daily demand	77.0 mgd
Total water delivered	86,303 af

System information

Active wells	93
Total well capacity	232 mgd
Distribution reservoirs	62
Storage capacity	141.5 mg
Distribution piping system	2,004 miles

Canal Water

Service information

Irrigable acres for service	76,428
Active accounts	1,267
Total water delivered	333,160 af
Average daily demand	913 af
Maximum daily demand	1,205 af

System information

Reservoirs	2
Storage capacity	1,301 af
Distribution system	485 miles
Pumping plants	16
Length of canal	123 miles

Agricultural Drainage

Total on-farm drains	2,298 miles
Acreage with farm drains	37,425
District open drains	21 miles
District pipe drains	166 miles

Wastewater

Service information

Population served	256,173
Active accounts	94,269
Average daily flow	16.6 mgd

System information

Wastewater reclamation plants	5
Total daily plant capacity	33.1 mgd
Collection piping system	1,129 miles

Nonpotable Water

(Includes Colorado River water and recycled water)

Service information

Active accounts	24
Nonpotable water used	39,194 af

System information

Wastewater reclamation plants producing recycled water	2
Total daily capacity	17.5 mgd
Distribution piping system	31 miles

Groundwater Management

(In cooperation with Desert Water Agency)

Replenishment facilities	3
Replenishment from imported water	429,856 af
Imported supply since 1973	3,821,141 af

Stormwater Protection

Service area	381,479 acres
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System information

Number of stormwater channels	16
Length of Whitewater River/ Coachella Stormwater Channel	49 miles
Length of all regional flood protection facilities	134 miles

af = acre-feet. An acre-foot of water is equal to 325,851 gallons, or enough water to cover one-acre of land one-foot deep.

mgd = million gallons per day.

mg = million gallons.

Coachella Valley Water District

75-515 Hovley Lane East

Palm Desert, CA 92211

(760) 398-2651

www.cvwd.org

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