San Diego County Water Authority

General Manager's Adopted Multi-Year Budget

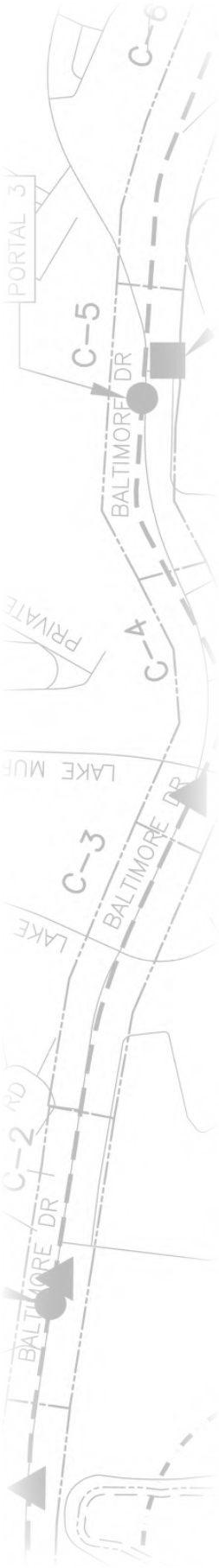
Fiscal Years

2020 and 2021

Our Region's Trusted Water Leader

San Diego County Water Authority

San Diego County Water Authority
General Manager's Adopted Multi-Year Budget
Fiscal Years 2020 and 2021



Board of Directors - Officers

Jim Madaffer	Chair
Gary Croucher	Vice Chair
Christy Guerin	Secretary

Management

Sandra L. Kerl	Acting General Manager
Mark J. Hattam	General Counsel
Dan Denham	Assistant General Manager
Lisa Marie Harris	Director of Finance/Treasurer

For copies contact:

San Diego County Water Authority

Finance Department

4677 Overland Avenue, San Diego CA 92123

858 522 6600

To view or download an electronic version, visit our website at:

http://www.sdcwa.org

San Diego County Water Authority Board of Directors

Gary Arant	Valley Center Municipal Water District
Jimmy Ayala	City of San Diego
David Barnum	Ramona Municipal Water District
Jack Bebee	Fallbrook Public Utility District
Brian Boyle	City of Oceanside
Jerry Butkiewicz	City of San Diego
Chris Cate	City of San Diego
David Cherashore	City of San Diego
Gary Croucher	Otay Water District
Betty Evans	Vallecitos Water District
Lois Fong-Sakai	City of San Diego
Christy Guerin	Olivenhain Municipal Water District
Matt Hall	Carlsbad Municipal Water District
Kathleen Coates Hedberg	Helix Water District
Tony Heinrichs	City of San Diego
Frank Hilliker	Lakeside Water District
Michael T. Hogan	Santa Fe Irrigation District
Mel Katz	City of Del Mar
Tom Kennedy	Rainbow Municipal Water District
Barry Leonard	City of Poway
Keith Lewinger	Carlsbad Municipal Water District
Jim Madaffer	City of San Diego
John Masson	City of Escondido
Marty Miller	Vista Irrigation District
Ron Morrison	City of National City
Joe Mosca	San Dieguito Water District
James Murtland	Rincon del Diablo Municipal Water District
Jose Preciado	South Bay Irrigation District
Elsa Saxod	City of San Diego
Joel Scalzitti	Helix Water District
John Simpson	Camp Pendleton Marine Corps Base
Tim Smith	Otay Water District
Fern Steiner	City of San Diego
Almis G. Udrys	City of San Diego
Ronald Watkins	Yuima Municipal Water District
Doug Wilson	Padre Dam Municipal Water District
Jim Desmond, Representative	County of San Diego

General Manager's Budget Message

Background and Community Profile

Policies

Financial Summaries

Sources and Uses of Funds

Operating Departments

Capital Improvement Program

Appendices

San Diego County Water Authority Budget Awards

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

San Diego County Water Authority

California

For the Biennium Beginning

July 1, 2017

Christopher P. Morrill

Executive Director

California Society of Municipal Finance Officers

Certificate of Award

Operating Budget Excellence Award
Fiscal Year 2017-2018

Presented to the

San Diego County Water Authority

For meeting the criteria established to achieve the Operating Budget Excellence Award.

February 7, 2018

Drew Corbett
CSMFO President

Craig Boyer, Chair
Professional Standards and Recognition Committee

Dedicated Excellence in Municipal Financial Reporting

Board of Directors,

I am pleased to present you with the Adopted Multi-Year Budget for Fiscal Years 2020 and 2021. This two-year budget totals $1.7 billion, up 5% from the current budget mainly due to increasing costs for water supply, supply reliability, and the Capital Improvement Program.

Kearny Mesa Headquarters

As we enter our 75th year, this budget reflects the Water Authority's continued commitment to innovation and leadership on water resource issues locally, statewide and across the Southwest. After decades of work to secure safe and reliable water supplies for the San Diego region, we are well-positioned to make strategic, cost-effective investments that will both maintain our existing assets and allow us to prepare for the new challenges that tomorrow will bring.

The retirement of Maureen Stapleton in February marked the end of an extraordinarily successful era in the Water Authority's history as we moved from near-total dependence on a single source to a highly diversified water supply portfolio. For the Water Authority, the past two-year budget cycle included numerous achievements, including:

- Securing transportation for the conserved water transfer from the Imperial Irrigation District through 2047
- Completing substantial upgrades to our large-scale water delivery system
- Adopting some of the lowest water rate increases in 15 years
- Enhancing our cyber-security defenses
- Developing and deploying numerous innovative asset management technologies
- Building momentum for restoration at the Salton Sea
- Helping refocus the discussion about a proposed state water tax on more productive, integrated solutions
- Deploying the innovative Brought to You by Water outreach and education program
- Saving nearly $18.0 million on future debt payments by refinancing bonds used to build a major pipeline connected to the Claude "Bud" Lewis Carlsbad Desalination Plant
- Distributing more than 46 billion gallons of high-quality drinking water from the desalination plant
- Securing a permit for construction of seawater intake and discharge facilities at the Carlsbad Desalination Plant
- Graduating more than 650 community leaders from the Citizens Water Academy

Pioneering.
Visionary.
Agile.
Driven.

That's who we are.
That's what we do.

San Diego County Water Authority

We also benefitted significantly from our successful rate case litigation against the Metropolitan Water District of Southern California, which substantially increased our rights to MWD water and prevented $15.0 million a year in illegal overcharges by MWD in the prior two-year budget. One result is that the Water Authority's independent Colorado River supplies are both less expensive and more reliable than water from MWD, a testament to the value of the historic water conservation-and-transfer deal the Water Authority signed in 2003.

The importance of our visionary long-term strategy was underscored in April, when Governor Gavin Newsom issued an executive order directing his administration to "identify and assess a suite of complementary actions to ensure safe and resilient water supplies." It was, effectively, a statewide mandate to do what the Water Authority and its member agencies have been doing for more than 20 years. The state's new direction also provides the Water Authority with an opportunity to share integrated solutions that benefit San Diego and the state. By thinking big and working collaboratively, we can execute a vision that will make our future as bright as our past.

Moving into the Future

As we transition to the next era of Water Authority leadership, staff is committed to upholding the core values that have shaped our legacy of success while adapting to changing conditions and maximizing the value of our investments. Looking ahead, five major themes emerge in this budget that shape our day-to-day activities, align with the Board's financial and operational priorities, help us meet Business Plan goals, and allow us to provide maximum benefits to our member agencies. Those themes are:

- Water management – One of the major benefits we provide to the region is strategic, long-term planning to ensure water supply reliability for decades to come. It's critical that we thoughtfully update the Urban Water Management Plan during the 2020 cycle so that we have the flexibility to address climate variability, water-use trends and numerous other factors that require us to prepare for a range of potential future conditions.

- Community engagement – We've stepped up our outreach programs in recent years to engage stakeholders in water issues through the deployment of award-winning programs such as the Citizens Water Academy, the Water News Network, and the WaterSmart Landscape Makeover Program, along with the Brought to You by Water education and outreach initiative. We plan to continue the regional dialogue to enhance support for the Water Authority and its mission through the continued development of creative tactics. And we remain committed to helping residents and businesses make the most of every drop regardless of the weather.

Brought to You by Water Campaign

- Government relations – Regulations, agency approvals and legislation at the state and federal levels have a major impact on the Water Authority's functions, and we must maintain a strong presence in Sacramento and Washington, D.C., to advocate for the interests of San Diego County ratepayers. Key topics range from emerging issues such as the development of a Lake Mead storage account for San Diego to long-term topics like water-use efficiency and rate case settlement efforts.

- Project exploration and development – As we assess the future of water supply reliability in San Diego County, significant projects and initiatives are on the horizon. They include securing water storage capacity in Lake Mead, completing a new seawater intake for the Claude "Bud" Lewis Carlsbad Desalination Plant, assessing the value of a new pipeline to the east and evaluating the potential for a major new pumped energy storage project at San Vicente Reservoir in partnership with the City of San Diego.

LASER Prolifometry and Electromagnetic Acoustic Transducer for pipe mapping and measurements (2019)

- Key business functions – From enhancing cyber-security to continuing to develop and grow our employee resources, we have a full slate of core functions that are critical to sustain the highest levels of excellence across all our program areas so we can ensure safe and reliable water supplies at a reasonable cost.

The budget development process included a critical look at each department's plans, projects and projections to make sure they align with the agency's overall goals and the direction set by the Board. Starting in October 2018, the Finance Department worked with management analysts and department heads across the agency to refine each budget component for maximum cost-effectiveness.

As usual, more than 90% of the adopted budget is associated with purchasing and treating water or building and financing infrastructure. This reflects the Water Authority's long-term strategy to invest in supply reliability to meet current and future needs of the San Diego region. It is also indicative of the Water Authority's core mission to provide a safe and reliable source of water.

About 6% of the adopted budget is for the Water Authority's Operating Departments. We proposed increasing spending for those departments by 5%, or $5.3 million, compared to the prior two-year budget primarily due to the Water Authority's estimated cost share of operations and maintenance and capital costs at shared facilities at Lake Hodges and San Vicente Reservoir.

We anticipate that demands for water from the Water Authority will increase slightly during the next budget cycle. However, demands are not expected to return quickly to pre-drought levels, resulting in continued pressure on revenues. We are addressing those issues by planning strategic withdrawals from the Rate Stabilization Fund, with $38.0 million planned in Fiscal Year 2020 and $33.0 million planned for Fiscal Year 2021.

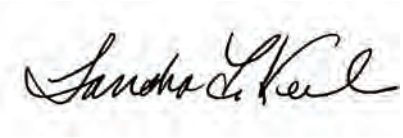
The budgeting process is complex and challenging, and I want to recognize the efforts and expertise of the Finance Department's budget team: Lisa Marie Harris, Director of Finance/Treasurer; Liana Whyte, Budget and Treasury Manager; Rebecca Melillo, Senior Management Analyst; and Monika Wojcik, Management Analyst.

We are proud to serve the 3.3 million residents of San Diego County with a safe and reliable water supply that sustains our $231.0 billion economy and quality of life. We can only do so with a full team effort, from the Finance Department to the men and women across the agency who take care of too many essential functions to name.

It's also critical that we continue to partner with our member agencies on key issues, including the development of potable reuse, responding to state regulations, advancing sound regional policies, and communicating clearly with stakeholders.

The team also depends on the vision and leadership of the Board of Directors, which has provided staff with the resources required to maintain the Water Authority's reputation as one of the nation's premier water agencies. I appreciate the Board's dedication to the Water Authority's mission – a mission that we strive to meet each and every day – and its continued foresight to provide the resources necessary to perform this essential service.

Respectfully,



Sandra L. Kerl

Acting General Manager

Fiscal Years 2018 and 2019 Accomplishments

During the past two years, the Water Authority has reached milestones on several crucial projects and programs:

Safeguarding Assets

- Implemented key cyber-security enhancements with hardware, software, procedures and training.
- Enhanced the physical security of the Kearny Mesa building and grounds, with the addition of surveillance cameras and new camera hardware and software, along with additional access card readers.
- Launched a major rehabilitation project on the historic First Aqueduct to extend its service life by decades.
- Completed nearly seven miles of pipeline relining and inspected almost five miles of the aqueduct system.

Controlling Costs

- Performed an extensive cost-of-service review with Member Agency General Managers and Finance Officers and adopted some of the lowest rates in the past 15 years for 2019.
- Secured nearly $18.0 million in savings on future debt payments for the region's water ratepayers by refinancing the Claude "Bud" Lewis Carlsbad Desalination Pipeline Bonds.
- Executed a withdrawal of $22.0 million on the Rate Stabilization Fund to smooth rate increases.
- Marked a historic cost savings as water from the Quantification Settlement Agreement became cheaper to the region and ultimately all ratepayers than water supplied from the Metropolitan Water District (MWD).
- Achieved cost savings and revenue increases during the first years of in-house operations of the Olivenhain Hodges Pumped Storage and Hydroelectric Facility.
- Reached a tentative agreement with the Teamsters Local 911 Unit to extend the existing contract for two years with minor changes.

Innovating Technologies

- Developed pioneering pipeline assessment equipment, such as underwater inspection camera tools, laser pipe-diameter measuring, and pipe-inspection vehicles.

2017 Special Districts Technology Innovation Award for Pipeline Risk Visualization

- Vetted dozens of Bright Ideas submitted by employees for continued improvements.
- Negotiated a term sheet with a private developer for the San Vicente Energy Storage Facility Study and secured a new four-year preliminary permit for the study from the Federal Energy Regulatory Commission.

Enhancing Supply Security

- Secured a major new permit for construction of permanent seawater intake and discharge facilities at the Carlsbad Desalination Plant.
- Extended the Exchange Agreement with MWD for conveyance of conserved Colorado River water from 35 years to 45 years, aligning that agreement with the Water Authority-Imperial Irrigation District Transfer Agreement.
- Supported Local Resources Program applications from member agencies to secure funds from MWD.
- Negotiated a stipulated order with the State Water Resources Control Board and a number of other interested parties to set annual commitments and a framework for Salton Sea restoration efforts.
- Achieved an increase of approximately 100,000 acre-feet of additional MWD water annually when the court determined that MWD unlawfully under-calculated the Water Authority's statutory water right.

Engaging Stakeholders

- Developed and deployed an active, creative civic engagement and education program that resulted in new outreach tools for member agencies and unprecedented engagement with stakeholders.
- Celebrated the graduation of more than 650 civic and community leaders from the Citizens Water Academy.
- Helped re-frame the statewide discussion about how to improve water quality in other parts of the state.
- Proposed a comprehensive legislative framework to address long-standing safe drinking water concerns of communities throughout California.

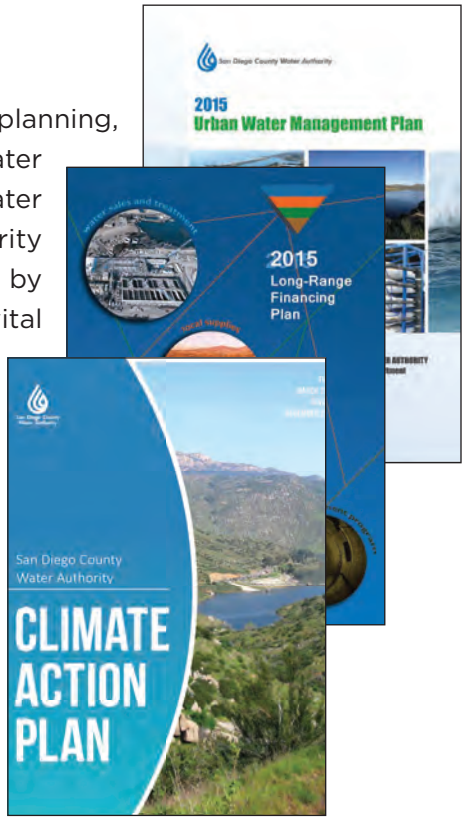
Embracing the Future

- Extended high-level discussions with MWD over litigation settlement.
- Supported legislation to increase water industry opportunities for military veterans.
- Drafted a study proposal for assessing the costs and benefits of a new pipeline to the east for delivering the Water Authority's independent Colorado River supplies.
- Advanced discussions at local and regional levels to secure water storage capacity in Lake Mead.

Fiscal Years 2020 and 2021 Projects and Initiatives

The Adopted Budget for Fiscal Years 2020 and 2021 emphasizes advancing or completing the following major projects and initiatives.

Long-Term Planning



Water Authority is a recognized leader in water resource and financial planning, and continued excellence in those areas is vital to the health of the Water Authority and member agencies. The Water Authority's 2020 Urban Water Management Plan (UWMP) must be adopted by the Water Authority Board and submitted to California Department of Water Resources by July 1, 2021, and the adopted budget provides for completion of that vital planning tool. The UWMP will include a forecast of water demands through 2045 and identify the mix of water resources to meet those demands in light of the Water Authority's 2017 Water Shortage Contingency Plan. The Water Authority will also update its Climate Action Plan in 2020, an interdisciplinary effort that examines Water Authority activities with the goal of minimizing greenhouse gas emissions. In addition, staff will draft the 2020 Long-Range Financing Plan, update the Water Shortage Contingency Plan and complete an agency-wide assessment of employee compensation.

Strategic Studies

In addition to standard planning processes, the adopted budget allows for investigations into important new or developing issues. Staff will perform updated condition assessments of the agency's infrastructure, using expanded criteria and technical analysis to prioritize projects. These priorities, along with updated project budgets to address recent cost increases in the construction market, will be used to establish new long-term projections for future budgets. Also included in the budget is continued development of the San Vicente Energy Storage Facility Study, which involves strategic legislative and regulatory efforts that promote pumped energy storage projects to meet California's clean energy goals. The Energy team, consisting of Water Authority and City of San Diego staff, also plans to negotiate a San Vicente Energy Project Development Agreement for Board consideration.

Security Improvements

Secure facilities and digital networks are central to everything else the Water Authority does. The adopted budget advances implementation and maintenance of high-priority information security measures based on the Center for Internet Security's CIS-20 security framework. It also includes completion of physical and policy improvements identified in the 2018 security review to enhance the security of the Kearny Mesa headquarters. The adopted budget also allows for completion of the Escondido Facility Space Needs Assessment Study to develop a master plan for transitioning to a new, efficient and secure operational hub.

Visionary Initiatives

Under the adopted budget, the Water Authority will continue to engage at the regional, state and national levels to secure water storage capacity in Lake Mead. As part of the "Solutions for San Diego and the Southwest" initiative, securing Lake Mead storage would provide additional drought-resilience for San Diego without building any new dams or spending money on reservoirs. In addition, the adopted budget funds studies to assess the costs and benefits of a potential new water conveyance system to move the Water Authority's independent Colorado River supplies from the Imperial Valley to San Diego County. The Regional Conveyance System is designed to protect ratepayers while improving reliability and exploring potential partnerships with Imperial Irrigation District, the Bureau of Reclamation, Mexico and the private sector. Over the years, other studies have found no technical fatal flaws in the concept, prompting a fresh assessment as conditions in the river basin continue to evolve. The adopted budget also allows the Water Authority's Innovation Program to strengthen relationships and partnerships to help identify additional metrics for evaluating the new ideas. By communicating and collaborating with other leading organizations, the Water Authority can share ideas, and gather information about potential cost-saving advances.

Member Agency Support

Collaboration with member agencies is fundamental for the Water Authority, and the adopted budget supports continued services for member agencies. One of these initiatives is assessing interest in a Member Agency Asset Management Support Network and instituting the network if there's sufficient interest. In addition, the budget funds the continuation of the Brought to You by Water outreach and education program, which provides the Water Authority and member agencies with engaging, positive platforms and materials for stakeholder outreach.

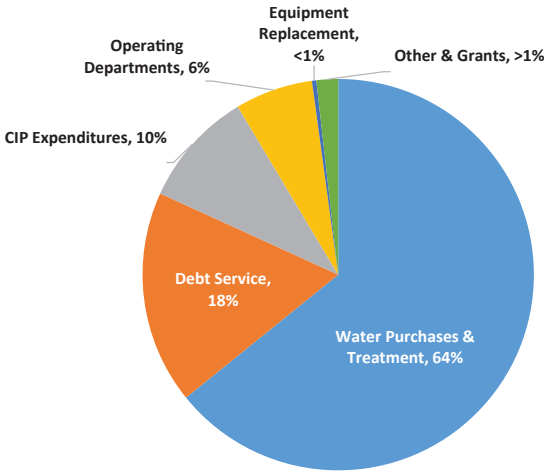
Capital Improvements

While the Water Authority's era of major capital projects has passed, the agency still has several smaller-scale capital projects under way that are funded by the adopted budget. They include the development of the new seawater intake-discharge structure at the Carlsbad Desalination Plant, per the permit secured in May 2019. In addition, the agency continues to execute renovations on the First Aqueduct to improve operations of those historic pipelines for decades to come.

Fiscal Years 2020 and 2021 Adopted Budget Overview

The Adopted Budget for Fiscal Years 2020 and 2021 incorporates priority projects and supports our core values and vision. This budget also provides the resources necessary to advance or achieve our 2019-2023 Business Plan goals and objectives as we continue to navigate the shifting water supply, legal, regulatory, and political landscapes.

Figure 1: Fiscal Years 2020 & 2021 Adopted Budget ($1.7 Billion)



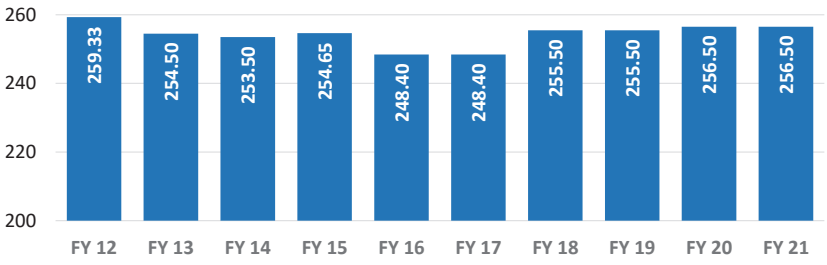
The adopted budget for Fiscal Years 2020 and 2021 is $1.7 billion, an increase of $84.4 million, or 5%, from the prior two-year budget. As shown in Figure 1, more than 92% of the adopted budget is for purchasing or treating water, or building and financing infrastructure.

The biggest driver of the Water Authority's total budget is the purchase and treatment of water. The adopted budget for water purchases and treatment increased by $48.9 million, or 5%. This increase reflects an increase in the cost to purchase water, pass-through increases in rates and charges set by the Metropolitan Water District of Southern California, and scheduled increases to the price of water from the Colorado River Quantification Settlement Agreement and the Claude "Bud" Lewis Carlsbad Desalination Plant.

In addition to increases in purchases and treatment of water there is an increase of $24.6 million in the two-year appropriation for Capital Improvement Program spending in the adopted budget. The increase to the Capital Improvement Program spending is largely driven by several new projects which have been added as well as increases due to scope changes and an escalation of construction costs.

The adopted budget for Operating Departments is $108.5 million, or approximately 6% of the total Water Authority budget. That's an increase of $5.3 million, or 5%, from the prior two-year budget. The Operating Departments budget includes $5.9 million in non-discretionary increases, the largest of which is a $3.2 million increase the Water Authority's cost share of Operations and Maintenance and capital modification costs at shared facilities. Other non-discretionary increases include required increases in employer contributions to the California Public Employees Retirement System. In October 2018 the Board approved the establishment of a pension funding policy framework to address rising pension costs and for reducing the Water Authority's Unfunded Pension Liability, as a result, funds are included in the adopted budget for additional pension costs.

Figure 2: Historical Staffing

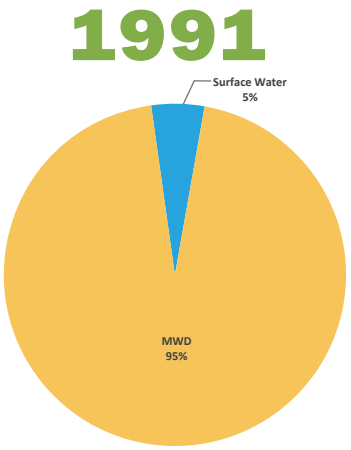


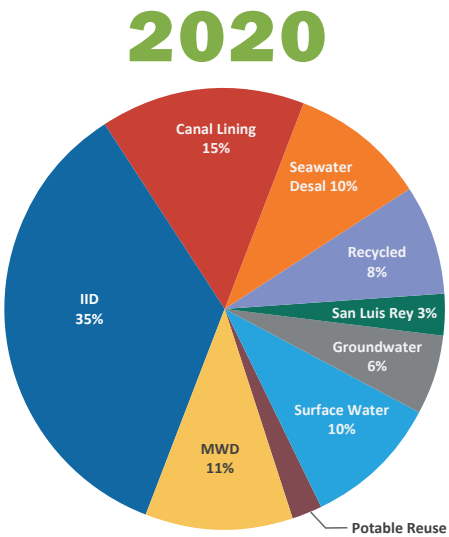
Ongoing reviews of the agency's personnel needs have resulted in downgrading several positions and eliminating others over the past several years. Since Fiscal Year 2010, the Water Authority has strategically trimmed 41 full-time equivalent positions (FTEs), or 12% of the workforce. During Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and address the changing needs of the workforce. The adopted budget includes an increase of one position in Fiscal Years 2020 and 2021 to replace a professional services contract for asset management and will primarily be funded through the Capital Improvement Program.

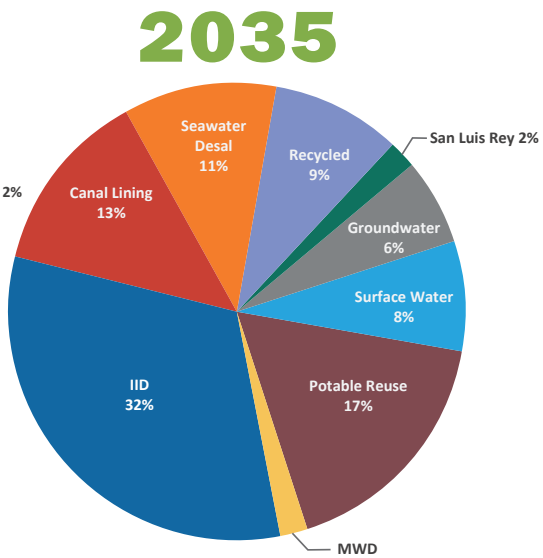
Into the Future

Looking beyond the next two fiscal years, the Water Authority will continue to navigate the changing water supply and regulatory landscapes with pioneering programs. Through its master planning process, the agency not only will account for drought-related shifts in water use and changing water supplies, but also assess potential infrastructure upgrades that make the most of existing investments. In addition, the Water Authority's member agencies continue to develop new supplies, particularly through water reuse and recycling projects, that will be incorporated into the long-term supply portfolio as they move from concept to reality.

This process will require a collaborative effort throughout the Water Authority and its member agencies to maintain the region's legacy of leadership on water issues, promote the wise use of water, advocate for legal rates and sound policy at MWD, and expand the region's water supply portfolio so that it's even more resilient in the decades ahead.







Background

This section provides an overview of the San Diego County Water Authority (Water Authority), including its organizational structure, the budget process, and a community profile of the agency's service area and the region.

KEY WATER AUTHORITY FACTS

- Mission: To provide a safe and reliable supply of water to 24 member agencies serving the San Diego region.
- Who We Are: An independent public agency that serves as San Diego County's regional water wholesaler.
- Formed: June 9, 1944
- First Imported Water Delivery to the Region: Nov. 24, 1947
- Imported Water: More than 80% of the region's water is imported from the Colorado River and Northern California
- Service Area: 947,000 acres
- Serves: 97% of the county's population
- Pipelines: Five major pipelines totaling approximately 310 miles of large-diameter pipeline
- Board of Directors: 36 members representing 24 member agencies
- Member Agencies:
    - 6 cities
    - 5 water districts
    - 3 irrigation districts
    - 8 municipal water districts
    - 1 public utility district
    - 1 federal agency (military base)
- One acre-foot=325,900 gallons, or enough water to cover one acre to a depth of one foot. An acre-foot can supply the needs of two typical four-person families for one year.

OVERVIEW OF THE WATER AUTHORITY

Mission Statement

- The Water Authority's mission is to provide a safe and reliable supply of water to its member agencies serving the San Diego region.

History

- The Water Authority was formed on June 9, 1944, by the California State Legislature under the County Water Authority Act (Act) for the primary purpose of importing Colorado River water into San Diego County.

Responsibility

- The Act authorizes the Water Authority to acquire water and water rights; acquire, construct, operate and manage works and property, develop, store, and transport water; provide, sell, and deliver water for beneficial uses and purposes; and provide, sell, and deliver water of the authority not needed or required for beneficial purposes by any public agency. The Act also authorizes the Water Authority to acquire, store, treat, reclaim, repurify, reuse, distribute, and sell sewage water, wastewater, and seawater for beneficial purposes. The Water Authority is authorized to utilize any part of its water, and any parts of its works, facilities, improvements, and property used for the development, storage, or transportation of water, to provide, generate, and deliver hydroelectric power; and acquire, construct, operate, and maintain any and all works, facilities, improvements, and property necessary or convenient for that utilization. In addition, the Water Authority has the ability to procure and distribute electric power for its own use and that of its member agencies.

Service Area

- The Water Authority's service area encompasses the western third of San Diego County, an area of approximately 947,000 acres (1,480 square miles). The Water Authority's boundaries extend from the U.S. border with Mexico in the south, to Orange and Riverside Counties in the north, and from the Pacific Ocean to the foothills that terminate the coastal plain in the east.

Member Agencies

- The Water Authority's 24 member agencies purchase water from the Water Authority for retail distribution in their service territories. The member agencies are comprised of six cities, five water districts, eight municipal water districts, three irrigation districts, a public utility district, and a federal military reservation that have diverse water needs.

  In terms of land area, the City of San Diego is the largest member agency with 213,121 acres. The smallest is the City of Del Mar, with 1,442 acres. Some member agencies, such as the cities of National City and Del Mar, use water almost entirely for municipal and industrial purposes. Others, including Valley Center, Rainbow, and Yuima Municipal Water Districts, deliver water that is used mostly for agricultural production.

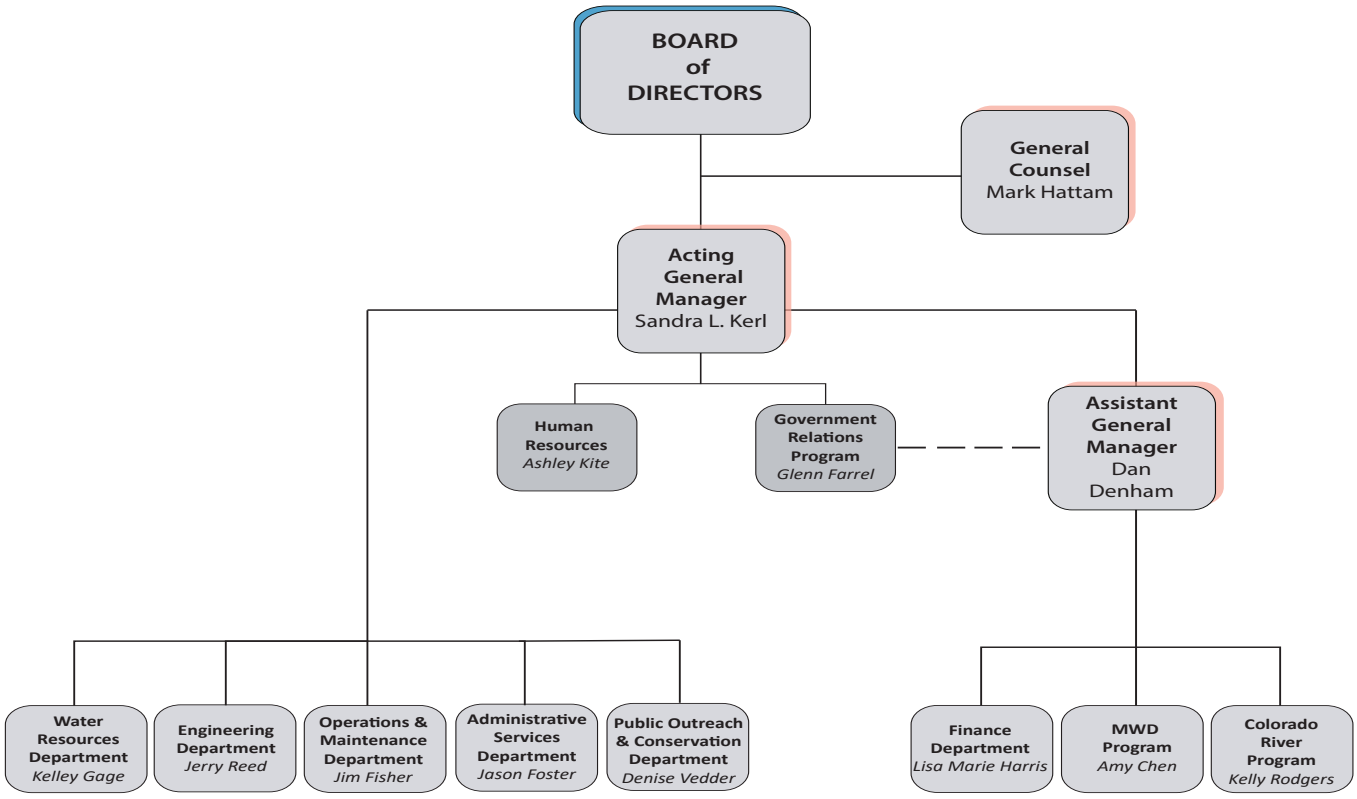
  Member Agency Map, Figure 2, can be found on page 18.

Board of Directors

- The member agencies are represented on a 36-member Board of Directors. All 24 member agencies have at least one representative on the Board. Member agencies may also designate and appoint one additional representative for each full 5 percent of Water Authority assessed value within the member agency service area. In addition, a member of the San Diego County Board of Supervisors serves as a non-voting representative to the Water Authority Board.

ORGANIZATIONAL STRUCTURE

The Board determines the policies for the Water Authority; these policies are carried out by the Water Authority staff. The General Manager and General Counsel report directly to the Board. The General Manager is responsible for the Water Authority's regular operations. The Water Authority has ten separate departments, including the General Manager's Office, General Counsel, the MWD Program, and the Colorado River Program, as depicted in the following organizational chart. The Government Relations Program and Human Resources are part of the General Manager's Office.



BUDGET PROCESS

The Water Authority utilizes a two-year budget with a 24-month appropriation. The budget process usually spans several months, every other calendar year. The process includes consideration and discussion by the Board of Directors, review and proposals by the leadership team, and executive peer review with department directors and the General Manager's Office.

FISCAL YEARS 2020 & 2021 BUDGET CALENDAR

- **October 2018:** Planning for upcoming budget development process was initiated.
- **January 2019:** Board of Directors considered and discussed the anticipated drivers and policy priorities of the upcoming multi-year budget.
- **October 2018 – January 2019:** Leadership team reviewed and evaluated existing services to determine if additional performance improvements could be made since the last budget cycle.
- **February – March 2019:** The Executive Peer Review Team reviewed budget proposals and gave recommendations to the General Manager's Office. The General Manager reviewed the budget and final decisions were made.
- **May 23, 2019:** The General Manager's Recommended Budget Document was presented to the Board.
- **June 11 & 13, 2019:** The Administrative and Finance Committee reviewed the Recommended Budget including Water Rates and Charges, Water Purchases, Debt Service, Capital, and Operating Budgets. The Administrative and Finance Committee made a recommendation to the full Board to adopt the recommended budget.
- **June 27, 2019:** The Board formally adopted the Fiscal Years 2020 & 2021 budget.

BUDGET DOCUMENT

The Adopted Multi-Year Budget for Fiscal Years 2020 and 2021 is organized and presented to satisfy the needs of Water Authority stakeholders, which include member agencies, creditors and investors, citizens, board directors, staff, and public officials. The budget is organized in compliance with the California state statutes and structured to meet external and internal managerial needs. This document serves as a comprehensive financial plan and communication tool for describing the Water Authority's programs, services, and resource requirements.

BUDGET ADJUSTMENTS

The Water Authority Board of Directors adopted a two-year budget which is to be appropriated and expended as identified in Board Resolution No. 2019-13, which can be found in Appendix G of this document. By this resolution, the total appropriations adopted by the Board of Directors established the legal expenditure limit for the Water Authority as well as established budgetary controls. Overall, the adopted budget shall neither be increased nor decreased without prior Board authorization. In summary, the General Manager of the Water Authority may exercise discretion to modify the budget for changed circumstances provided that the modifications are under $150,000. Section 4 of the resolution details the budgetary controls authorized by the Board.

BUDGET VERSUS ACCOUNTING BASIS

The Water Authority's multi-year budget is developed on a cash basis. A cash basis budget recognizes revenues and expenditures when cash is received and cash is disbursed. Conversely, the Water Authority uses the accrual basis of accounting. The accrual basis of accounting records and recognizes both revenues and expenditures, in the period they occur.

Community Profile

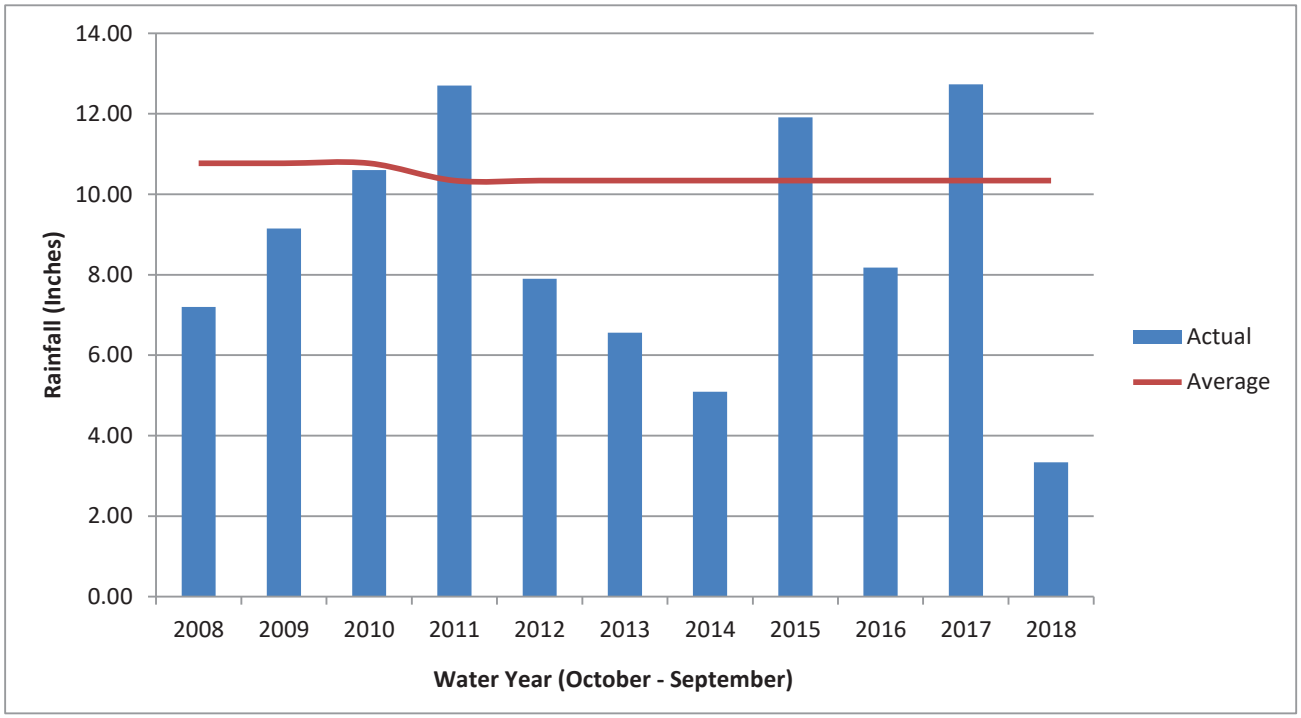
The Water Authority's service area has undergone significant changes over the past several decades. Driven by an average population increase of 50,000 people per year, large swaths of rural land were shifted to urban uses to accommodate the population growth. This shift in land-use resulted in the region's predominantly urban and suburban character.

San Diego County also has a rich history of agriculture, beginning with large cattle ranches in the 18th century and continuing through the diverse range of crops and products grown today. Although the total number of agricultural acres under production has declined, the region maintains a significant number of high-value crops, such as cut-flowers, ornamental trees and shrubs, nursery plants, avocados, and citrus. Based on the 2018 Crop Statistics and Annual Report by the County of San Diego Department of Agriculture, Weights and Measures, the county has over 242,000 acres devoted to commercial agriculture. San Diego County agriculture is an approximately $1.8 billion per year industry, with leading commodities in ornamental nursery plants, avocados, succulents, and lemons.

CLIMATE

Climatic conditions within the county area are characteristically Mediterranean along the coast, with mild temperatures year-round. Inland weather patterns are more extreme, with summer temperatures often exceeding 90 degrees Fahrenheit (°F) and winter temperatures occasionally dipping below freezing. Average annual rainfall is approximately 10 inches per year on the coast and more than 33 inches per year in the inland mountains. More than 80% of the region's rainfall occurs between December and March.

Figure 1: Actual vs. Normal Rainfall - Lindbergh Field



REGIONAL ECONOMY AND DEMOGRAPHICS

Two of the San Diego region's assets are its geography and climate. Its physical beauty, ecological diversity, and favorable weather make it an attractive place to live and conduct business. The quality of life attracts a well-educated talented workforce and retirees contributing to consumer spending in the region. The result is a sustainable and diversified regional economy. The semi-arid climate and low average annual rainfall contribute to the county's high reliance on imported water. For these reasons, the health of the regional economy is inextricably linked to the long-term success of the Water Authority.

The region's economic stability is based on federal spending, innovation and technology, tourism, and real estate. Government operations account for a large portion of the region's gross domestic product. San Diego is the principal home port of the U.S. Pacific Fleet for the U.S. Navy. Tourism, one of the region's three core traded economies, has steadily increased since 2010. The moderate growth in taxable sales and an increase in the real estate market have contributed to the continued economic recovery in the region.

As of 2018, the region has continued to see a decline in unemployment. The 2018 average unemployment rate for San Diego County was 3.1%, lower than the state's 4.1% rate and the national average of 3.9%.[1]

POPULATION

When the Water Authority was formed in 1944, the population within its service area was estimated at roughly 260,000 people. By 2018, Water Authority service area population reached 3.3 million, or an approximate 12-fold increase. The City of San Diego represents the largest population of any member agency, with approximately 1.4 million people.

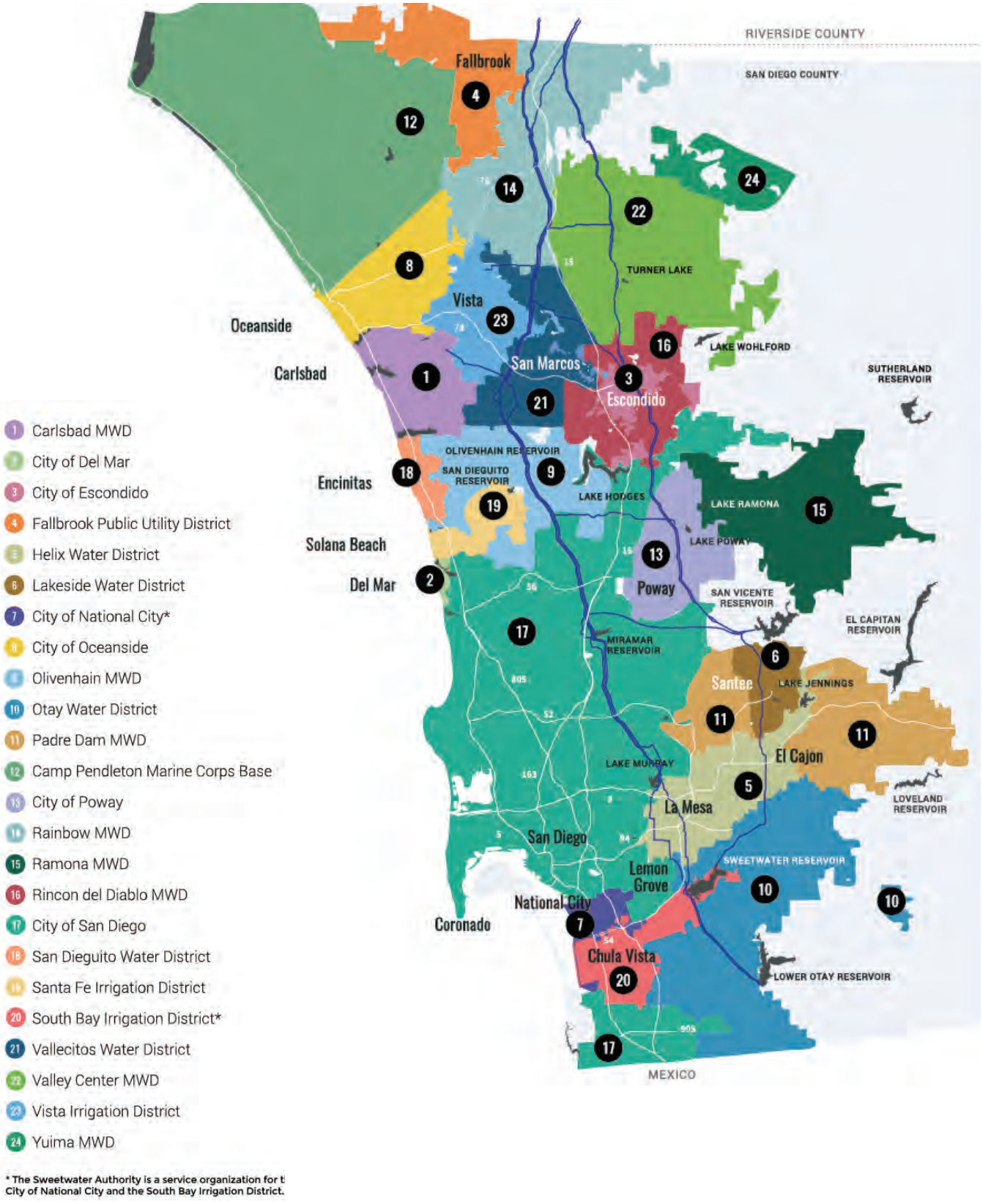
1. Bureau of Labor Statistics, December 2018.

Table 1: Water Source and Use - Fiscal Year Ended June 30, 2018

	Source of Water (Acre-Feet)			Type of Water Authority Supply (Acre-Feet)			
	Local Supply [1]	Water Authority Supply (Imported) [2]	Total	Agricultural Use [3]	M & I Use	Gross Area (Acres)	Estimated Population
Carlsbad Municipal Water District	6,747	13,780	20,526	-	13,780	20,682	88,422
Del Mar, City Of	117	1,078	1,194	-	1,078	1,442	4,297
Escondido, City Of	12,495	9,526	22,021	1,897	7,629	18,500	137,941
Fallbrook Public Utilities District	824	10,007	10,831	2,971	7,035	27,988	35,000
Helix Water District	4,545	25,713	30,257	-	25,713	31,350	274,526
Lakeside Water District	812	2,839	3,651	-	2,839	11,488	35,500
National City, City Of	5,005	246	5,250	-	246	4,812	60,160
Oceanside, City Of	2,460	22,510	24,970	310	22,199	26,983	176,461
Olivenhain Municipal Water District	2,839	19,432	22,271	104	19,328	30,942	86,607
Otay Water District	4,156	29,638	33,794	-	29,638	80,320	225,164
Padre Dam Municipal Water District	732	10,321	11,053	159	10,162	54,402	90,529
Camp Pendleton Marine Corps Base [4]	7,392	188	7,580	-	188	134,625	64,000
Poway, City Of	667	10,231	10,898	47	10,184	25,047	49,972
Rainbow Municipal Water District	-	19,240	19,240	8,807	10,433	47,670	19,944
Ramona Municipal Water District	708	4,872	5,580	1,034	3,838	45,868	40,000
Rincon Del Diablo Municipal Water District	2,745	5,468	8,213	32	5,437	10,596	29,955
San Diego, City Of [5]	29,469	152,193	181,661	152	152,041	213,121	1,406,318
San Dieguito Water District	4,212	2,660	6,871	-	2,660	5,660	37,794
Santa Fe Irrigation District	5,204	5,819	11,022	-	5,819	10,359	19,800
South Bay Irrigation District	10,418	1,709	12,128	-	1,709	13,837	130,520
Vallecitos Water District	3,500	12,634	16,134	901	11,733	28,363	104,356
Valley Center Municipal Water District	379	22,526	22,905	14,607	7,919	64,540	25,717
Vista Irrigation District	13,875	4,156	18,031	28	4,128	21,152	133,286
Yuima Municipal Water District	6,227	6,088	12,315	4,647	1,441	13,460	1,870
TOTALS	**125,525**	**392,871**	**518,397**	**35,696**	**357,175**	**943,207**	**3,278,139**

1. Includes surface, recycled and groundwater supplies; does not reflect conserved water.
2. Water use in a given year may differ from Water Authority water sales due to utilization of storage.
3. Includes only amounts certified through the Special Agricultural Water Rate (SAWR) discounted agricultural water use program.
4. Includes Water Authority deliveries via South Coast Water District system.
5. Excludes City of San Diego local surface water use outside of Water Authority service area.
Totals may not foot due to rounding.

Figure 2: Member Agency Map



Water Authority Policies

Under the Water Authority's Administrative Code Section 2.04.050 the General Manager shall bi-annually prepare and submit to the Board a two-year budget. The Water Authority considers the budget to be balanced when the sources of funds equals the uses of funds.

In addition to the bi-annual budget, the Water Authority prepares a Long-Range Financing Plan (LRFP). As a financial planning document, the LRFP serves as the financial foundation supporting the long-term strategic objectives of the Water Authority. It provides long-term forecasts of revenues and expenditures for both operating and capital investment activities.

The plan ensures:

- Adherence to Board policies on fund balances
- Operating Fund maximum balance
- Rate Stabilization Fund (RSF) target and maximum balances
- Pay-As-You-Go (PAYGO) Funds restricted for capital improvements
- Smooth and predictable rate and charge increases
- Compliance with debt service coverage policies
- Maintenance of credit rating of at least AA or Aa2
- Identifies capital financing strategy to minimize the cost of borrowing
- Tools and strategies are in place to address the impact of unexpected revenue and expense volatility

The LRFP, and the financial policies it is supported by, provides a conservative, flexible financial structure that permits effective management of various risks, including weather variability, economic uncertainty, capital market volatility, and water demand uncertainty.

While the LRFP serves as a planning document, the Debt Management Policy (DMP) sets forth comprehensive guidelines for the issuance and management of Water Authority debt. The policy ensures compliance with bond covenants and legal requirements and effectiveness of debt management. The DMP contains detailed guidelines relating to the following topics:

- Governing legal documents
- Integration of capital planning and debt issuance
- Procurement of debt-related professional services
- Transaction-specific policies
- Communication and continuing disclosure

- Refunding policies and guidelines
- Reinvestment of bond proceeds
- Creation and maintenance of funds
- Post issuance compliance
- Debt service coverage

The Water Authority's Board is focused on long-term policy issues, including how to address revenue volatility, ensure equity among member agencies and balance local supply development with supply reliability provided by the Water Authority. The Fiscal Sustainability Task Force initiative resulted in the creation of a Supply Reliability Charge that ensures equitable portions of the Water Authority's investments in regional supply reliability are paid by all member agencies. It also decreases water sales revenue volatility by reducing the amount of revenue collected on volumetric rates. In addition, the Board approved the consistent allocation of non-commodity revenue to the Treatment Rate category and the extension of the Transitional Special Agricultural Water Rate through Calendar Year 2020.

Significant Financial Policies

Within the LRFP and DMP, there are significant policies that play a role in managing the Water Authority's risks. These are highlighted below.

RESERVES

With adequate reserves, the impact of volatility in net revenues to the Water Authority need not result in a rate shock to member agencies. Given the nature and degree of the financial risk facing the Water Authority, adequate financial reserves are essential to prudent financial management.

Below are the funds that serve as a reserve for specific financial activities. For example, the Operating Fund must maintain a $5 million reserve for emergency purposes and the Rate Stabilization Fund provides reserves to ensure that the debt service coverage requirements are met during periods of financial distress.

Operating Fund

- The Operating Fund holds the Water Authority's working capital and emergency operating reserve. In April 2003 the Water Authority amended its Operating Fund policy from a 60-day minimum balance of average annual operating expenditures to a maximum balance of 45 days of average annual operating expenditures. Common to both policies is a requirement that $5 million of such calculated amount must be designated and held available for emergency repairs to the Water Authority's system due to unforeseen events. The Operating Fund provides working capital to ensure that even with mismatching cash receipts and disbursements, the Water Authority has ample liquidity/working capital.

Rate Stabilization Fund

- In Fiscal Year 1990, the Water Authority established the RSF for the purpose of collecting amounts of water revenues greater than expenditures in years of strong water sales. Funds can then be used to mitigate "rate shock" in years of weak water sales and/or to manage debt service coverage. The current policy governing RSF balances was first

adopted in August 2006 and revised in June 2018. The RSF target balance is equal to the financial impact of 2.5 years of wet weather or mandatory drought regulations and the maximum fund balance is set equal to the financial impact of 3.5 years of wet weather or mandatory drought regulations. The effect of the current policy is to create a target for fund balances that is tied to the real financial impacts/risks that the fund is designed to protect against. The financial impact was revised down from a 25% reduction in water sales to 15% effective Calendar Year 2021. A two-year transition period (Calendar Year 2019 and Calendar Year 2020) assumes a 20% reduction.

As a general rule, the Water Authority may transfer portions of its net water revenues exceeding the Board's 1.5 times debt service coverage policy into the RSF. From time to time, as needed, the Water Authority will transfer amounts from its RSF into water revenues to meet its debt service ratio requirements, or to help provide adequate working capital to the Operating Fund. The funds are invested with maturities of one to five years and include restricted cash and investments.

Stored Water Fund

- In 2006, the Board created the Dam-Fill Fund as a separate fund to support the purchase of water for the initial filling of San Vicente Dam Raise Project water storage capacity. As such, the Dam-Fill Fund was structured as a sinking fund designed only to provide funds for the initial dam-fill water purchases and then be eliminated. In 2010, the Dam-Fill Fund was renamed to the Stored Water Fund.

  In 2016, the Stored Water Fund was made a permanent fund dedicated to maintaining the working capital necessary to utilize the Water Authority's storage facilities. With the completion of the San Vicente Dam Raise Project and the fill complete, it is clear that the water inventory cycle, that is the repeating pattern of purchasing water for storage and then selling the stored water to member agencies, would introduce very large fund balance fluctuations into the Operating Fund. In addition to eliminating the large fluctuations in the Operating Fund, a permanent Stored Water Fund ensures that funds are available to purchase water for storage, and that stored water funds can be easily tracked to ensure that they are used only for stored water purchases.

  The Board Stored Water Fund Policy establishes a target storage level of 70,000 acre feet for the San Vicente Dam. The policy further ensures that funds are available to fill any shortfall below the target level. Therefore, if no water is in storage (i.e., storage level is 0 acre feet) there are funds held in the Stored Water Fund to purchase 70,000 acre feet and if the target level of storage is held (i.e., storage is at 70,000 acre feet) no funds are held in the Stored Water Fund.

Debt Service Reserve Fund

- The Debt Service Reserve Fund was created to hold the required legal reserve for Water Authority debt issues. Such reserves are held for the purpose of making an issue's annual debt service payments in the event that the Water Authority's pledged revenues are insufficient to make such payments. The reserve requirement is held in this fund until it is

expended, generally to fund the last payment of the debt issuance. Interest earned on the Debt Service Reserve Fund is transferred into the Operating Fund and is not restricted. In Fiscal Year 2019, the Debt Service Reserve Fund totaled $22.0 million comprised of reserves for the Series 1998A COP and Series 2019 debt issuances.

Equipment Replacement Fund

- In 2003, the Board separated the Equipment Replacement Fund from the Operating Fund. The Equipment Replacement Fund is funded by annual draws from the Operating Fund. Annual draws are based upon specific organization needs for small capital and operating equipment such as vehicles, computers, the SCADA system, etc. Specific needs are identified in a 6 year forecast, which is monitored and evaluated every 6 months, with annual updates. The Equipment Replacement Fund is used to replace equipment that has reached the end of its effective useful life.

LIMITATIONS ON DEBT ISSUANCE

The Water Authority's short-term debt shall not exceed 25-30% of its total debt. The calculation of short-term debt shall include variable-rate demand obligations, the authorized amount of commercial paper, and any short-term notes. As of June 30, 2019, 18% of the Water Authority's debt obligations consisted of short-term debt.

The Water Authority's long-term debt, for which net revenues are pledged, shall be limited to that amount for which current and projected revenues generate senior lien debt service coverage of at least 120%. The calculation of debt service shall not include general obligation bonds or assessment bonds, to which revenue sources other than pledged revenues, as defined in General Resolution No. 89-21, adopted May 11, 1989, are pledged.

DEBT SERVICE COVERAGE

The Debt Service Coverage Ratio (DSCR) measures the availability of current financial resources to pay for debt service. It is the ratio of annual revenues – net of operating expenses – to total annual debt service. For example, a DSCR of 1.00 means that after paying all operating expenses, an issuer only has exactly enough funds to pay its debt service obligations.

The DSCR is one of the primary metrics used by credit rating agencies and investors to assess the credit worthiness of an issuer. In this way it is similar to the income to loan ratio used in qualifying for home mortgage. All other things being equal, a higher DSCR means less borrowing, better credit ratings, and a lower cost of debt. Conversely, a lower DSCR means more borrowing, lower credit ratings, and more expensive debt.

The Water Authority's General Resolution is the document governing outstanding debt issues. In this document, the Water Authority contractually commits to set rates so as to maintain a minimum DSCR of 1.20 times on senior lien debt. The Water Authority also covenants to maintain net revenues of at least 1.00 times on all outstanding obligations.

ENHANCED DEBT SERVICE COVERAGE RATIO TARGET

Highly-rated issuers generally have DSCRs that exceed the covenanted levels. In August 2006, along with the RSF funding policies, the Board adopted a DSCR policy target of 1.50 times. This DSCR target provided levels more appropriate to preserve the long-term financial integrity of 'AA' rated agency in the midst of a large capital program. In addition to this 1.50 times policy target, the Board also adopted another policy target of 1.00 times on senior lien debt net of capacity charge revenues.

REVENUE COLLECTION POLICY

The Water Authority's revenues consist largely of (a) rates and charges imposed on member agencies for delivery of water, provision of services, and use of facilities; (b) capacity charges levied on new users and collected for the Water Authority by member agencies; and (c) taxes and standby charges imposed on property and collected on the tax rolls.

The revenue collection policy clearly defines the revenue billing and collection cycle, thus ensuring the integrity of the revenue streams, which form the basis of the Water Authority's strong credit.

Except for capacity charges and where otherwise provided by contract, invoices for rates and charges are mailed within 10 business days after the end of a calendar month. Each invoice indicates the date of invoice, amount and basis for billing, total amount due and payable, and the payment due date. Delinquency charges begin to accrue starting after 2:00 pm on the date stated in the invoice. If the delinquency charge is greater than five days, the delinquency charge is two percent of the delinquent payment for each month or portion thereof that the payment remains delinquent. The Board adopted policy does not allow for waivers of delinquency charges. This policy has resulted in the Water Authority's very low delinquency rates.

INVESTMENT POLICY

The investment policy organizes and formalizes Water Authority investment-related activities to ensure the systematic and prudent administration of funds. The Board of Directors and, upon formal delegation, the Treasurer for the San Diego County Water Authority, duly authorized to invest Water Authority monies by California Government Code, are trustees of Water Authority funds and therefore fiduciaries subject to the prudent investor standard.

The investment policy applies to all Water Authority funds and investment activities except for the employee's retirement and deferred compensation funds. Based on the priorities of safety, liquidity, yield and public trust, the policy addresses issues such as delegation of authority, permitted investments, diversification, portfolio limitations, internal controls, safekeeping and custody, reporting, and ethics and conflicts of interest.

This page intentionally left blank

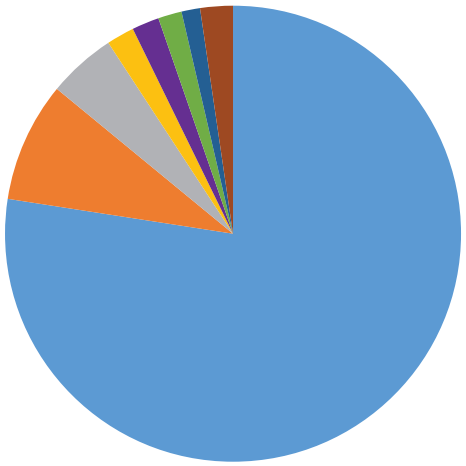
Overview

The Water Authority's Fiscal Years 2020 and 2021 Adopted Budget is $1.7 billion. This Financial Summaries Section contains charts and tables that explain the major components of this budget. The subsequent Sources and Uses Section provides additional detail regarding budgeted revenues and expenditures.

The adopted sources of funds (revenues) for Fiscal Years 2020 and 2021 are shown in Figure 1. Water Sales is the largest source of revenue at $1.3 billion, reflecting 77% of total revenue to the Water Authority.

Figure 1: Sources of Funds ($ Thousands)

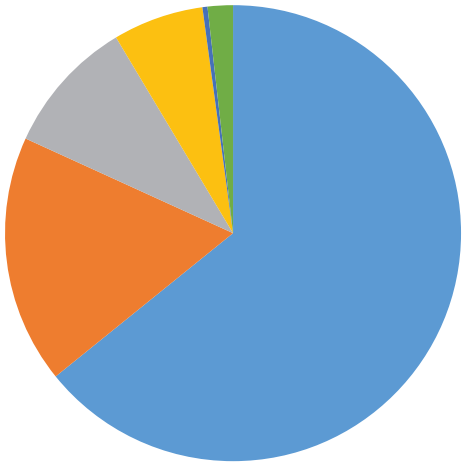
Water Sales	$ 1,306,919	77%
Net Fund Withdraws	143,581	9%
Infrastructure Access Charges	81,656	5%
Capacity Charges	33,220	2%
Build America Bonds & Investment Income	32,605	2%
Property Taxes & In-Lieu Charges	28,304	2%
Water Standby Availability Charges	22,221	1%
All Other Revenue Sources	39,060	2%
	$ 1,687,566	



The adopted uses of funds (expenditures) for Fiscal Years 2020 and 2021 are shown in Figure 2. Three expenditure categories, Water Purchases and Treatment, Debt Service, and the Capital Improvement Program (CIP) combined equate to over 92% of the total budget.

Figure 2: Uses of Funds ($ Thousands)

Water Purchases & Treatment [1]	$ 1,083,174	64%
Debt Service	297,432	18%
CIP Expenditures	162,222	10%
Operating Departments	108,503	6%
Equipment Replacement	6,024	<1%
Other & Grants	30,211	>1%
	$ 1,687,566	



1. In this figure only, Water Purchases and Treatment includes the Quantification Settlement Agreement (QSA) mitigation. These categories are shown separately in tables throughout the rest of the document.

Table 1 provides the breakdown of adopted sources (revenue) and uses (expenditures) of funds for the two-year budget period and previous budget periods, for comparative purposes. The overall Water Authority budget of $1.7 billion has increased by $84.4 million, or 5%, over the prior two-year budget. The biggest drivers of the adopted budget are the increase in the cost to purchase water and the increase to the Capital Improvement Program. Additional details on the individual revenue and expenditure line items are provided in the Sources and Uses Section of this document.

Table 1: Adopted Fiscal Years 2020 and 2021 Budgeted Sources and Uses of Funds ($ Thousands)

	FYs 16&17 Actual	FYs 18&19 Amended	FYs 18&19 Estimate	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Revenues & Other Income								
Water Sales	$1,103,992	$1,302,329	$ 1,192,052	$ 1,306,919	$ 4,590	<1%	$ 114,867	10%
Infrastructure Access Charges	61,579	67,991	67,996	81,656	13,665	20%	13,660	20%
Property Taxes & In-Lieu Charges	24,981	25,361	26,560	28,304	2,944	12%	1,745	7%
Investment Income	8,223	10,422	10,986	11,501	1,079	10%	515	5%
Hydroelectric Revenue	6,368	7,106	7,895	7,350	244	3%	(545)	-7%
Grant Reimbursement	18,508	26,635	15,195	27,327	692	3%	12,132	80%
Build America Bond Subsidy (BABS)	21,071	22,606	21,133	21,104	(1,502)	-7%	(28)	-
Other Income	9,060	985	10,932	2,528	1,543	157%	(8,404)	-77%
Capital Contributions:								
Capacity Charges	36,919	33,424	44,949	33,220	(204)	-1%	(11,917)	-26%
Water Standby Availability Charges	22,180	22,245	22,233	22,221	(24)	-	(12)	-
Contributions in Aid of CIP	1,011	1,683	129	1,855	172	10%	1,726	1335%
Total Revenues & Other Income	**$1,313,891**	**$1,520,786**	**$ 1,420,060**	**$ 1,543,985**	**$ 23,199**	**2%**	**$ 123,925**	**9%**
Net Fund Withdraws	148,325	82,341	63,433	143,581	61,239	74%	80,148	126%
TOTAL SOURCES OF FUNDS	**$1,462,216**	**$1,603,128**	**$ 1,483,493**	**$ 1,687,566**	**$ 84,438**	**5%**	**$ 204,073**	**14%**
Expenditures								
Water Purchases & Treatment	$ 817,684	$1,029,543	$ 915,872	$ 1,078,463	$ 48,920	5%	$ 162,592	18%
Stored Water Purchases	72,083	-	-	-	-	-	-	-
CIP Expenditures	146,661	137,618	137,160	162,222	24,604	18%	25,062	18%
Debt Service [1]	271,561	280,945	290,015	297,432	16,487	6%	7,417	3%
QSA Mitigation [2]	24,011	18,829	18,829	4,711	(14,119)	-75%	(14,119)	-75%
Operating Departments	94,396	103,202	96,650	108,503	5,301	5%	11,853	12%
Equipment Replacement	4,029	4,855	4,442	6,024	1,169	24%	1,582	36%
Grant Expenditures	20,712	27,135	18,004	26,323	(812)	-3%	8,319	46%
Other Expenditures	11,079	1,000	2,520	3,888	2,888	289%	1,368	54%
TOTAL USES OF FUNDS	**$1,462,216**	**$1,603,128**	**$1,483,493**	**$ 1,687,566**	**$ 84,438**	**5%**	**$ 204,073**	**14%**

1. Debt Service for Fiscal Years 2018 and 2019 not inclusive of super-subordinate Series 2012 Desalination Pipeline Bonds.
2. QSA Mitigation includes QSA JPA contributions, environmental mitigation, and payments for Socioeconomic Mitigation Settlement.
Totals may not foot due to rounding.

Tables 2 and 3 communicate the adopted rates and charges for Calendar Year 2020 by category, and compares these to the current and previous years' rates.

Overall, rates and charges are adopted to increase by 4.3% on Municipal and Industrial (M&I) treated water effective January 1, 2020. In addition, for budgetary purposes, the Water Authority develops water sales projections based on estimates for Calendar Year 2019 that incorporates current known factors and is consistent with the 2018 Interim Demand Forecast Reset.

Calendar Year 2016 restated rates are based on revised water sales volumes.

Table 2: Water Authority Water Rate on a Per Acre-Foot Basis

	CY 16 Rates	CY 17 Rates	CY 18 Rates	CY 19 Rates	CY 20 Adopted Rates	Variance $	Variance %
Melded Supply Rate	$ 780	$ 855	$ 894	$ 909	$ 925	$16	1.8%
Melded Treatment Rate	280	290	300	276	280	4	1.4%
Transportation	105	110	115	120	132	12	10.0%
Storage [1]	165	167	162	171	181	10	5.8%
Customer Service [1]	63	61	61	61	64	3	4.9%
Supply Reliability [1]	67	63	71	80	104	24	30.0%
TOTAL COST OF TREATED WATER	**$1,460**	**$1,546**	**$1,603**	**$1,617**	**$1,686**	**$69**	**4.3%**
TOTAL COST OF UNTREATED WATER	**$1,180**	**$1,256**	**$1,303**	**$1,341**	**$1,406**	**$65**	**4.8%**

1. Fixed charges converted to per acre-foot basis

Table 3: Water Authority Adopted Rates and Charges

	CY 16 Rates	CY 17 Rates	CY 18 Rates	CY 19 Rates	CY 20 Adopted Rates
Variable Rates ($/Acre-Foot)					
Melded M&I Supply Rate	$780	$855	$894	$909	$925
Melded M&I Treatment Rate	280	290	300	276	280
Transportation	105	110	115	120	132
Fixed Charges ($ Millions)					
Storage Charge	$63.2	$65.0	$65.0	$65.0	$65.0
Customer Service Charge	26.4	26.4	26.4	25.6	25.6
Supply Reliability Charge	26.0	24.2	28.6	30.2	37.4
Other Rates & Charges					
Untreated Special Agricultural Rate	$594	$666	$695	$731	$755
Treated Special Agricultural Rate	874	956	995	1,007	1,035
Infrastructure Access Charge (IAC) [1]	2.76/ME	2.87/ME	3.01/ME	3.01/ME	3.66/ME
Water Standby Availability Charge [2]	10	10	10	10	10

1. ME means meter equivalent as defined in the resolution establishing the IAC.
2. Fiscal Year charge.

Table 4 depicts the various sources of revenue that generate water sales and the categories of expenses that comprise the cost to purchase or treat water. Water Sales revenues are generated through rates and charges from the Water Authority (both fixed and commodity based), pass-through of Metropolitan Water District's (MWD) rates and charges, and other adjustments.

The Water Authority's rate periods differ from the budget. Rates are set on a calendar year basis; whereas the budget is set on a fiscal year basis, commencing July 1.

Additional detail on the assumptions that developed Water Sales and Purchases and historical information can be found in the Sources and Uses of Funds Section of this document, on pages 40 and 45.

Table 4: Water Sales and Purchases

Water Sales	Volume (AF)			Dollars		
Water Authority	**FY 20**	**FY 21**	**Total**	**FY 20**	**FY 21**	**Total**
Commodity						
Melded Supply	369,662	385,357	755,019	$ 338,899,318	$ 369,687,405	$ 708,586,723
Melded Treatment	157,302	160,415	317,717	43,679,404	45,254,460	88,933,864
Transportation	408,524	423,465	831,988	52,875,767	56,120,122	108,995,889
Transitional Special Agricultural Water Rate (TSAWR)	38,862	38,108	76,969	35,627,048	36,499,778	72,126,825
Subtotal Commodity				**$ 471,081,537**	**$ 507,561,765**	**$ 978,643,301**
Fixed						
Supply Reliability Charge	369,662	385,357	755,019	$33,815,000	$38,415,000	$ 72,230,000
Customer Service Charge	408,524	423,465	831,988	25,600,000	25,600,000	51,200,000
Storage Charge	369,662	385,357	755,019	65,000,000	65,600,000	130,600,000
Subtotal Fixed				**$ 124,415,000**	**$ 129,615,000**	**$ 254,030,000**
Subtotal Water Authority				**$ 595,496,537**	**$ 637,176,765**	**$1,232,673,301**
Pass-Throughs						
MWD						
Readiness-to-Serve (RTS) Charge	-	-	-	$ 13,460,080	$ 13,447,966	$ 26,908,046
Capacity Charge	-	-	-	8,140,735	8,015,841	16,156,576
CWA						
Carlsbad and Vallecitos Water Districts Desalinated Water Purchases	6,000	6,000	12,000	17,997,875	18,428,475	36,426,350
Subtotal Pass-Throughs				**$ 39,598,690**	**$39,892,282**	**$ 79,490,972**
Adjustments						
Reclamation Credits MWD	17,904	18,036	35,940	$ (2,748,408)	$ (2,946,888)	$ (5,695,296)
SDG&E Pumping Costs	-	-	-	225,000	225,000	450,000
Subtotal Adjustments				**$ (2,523,408)**	**$ (2,721,888)**	**$ (5,245,296)**
TOTAL WATER SALES				**$ 632,571,819**	**$ 674,347,159**	**$ 1,306,918,977**

Note: Totals may not foot due to rounding.

Water Purchases and Treatment (cost of sales) includes water purchases from MWD, Imperial Irrigation District, and the Claude "Bud" Lewis Carlsbad Desalination Plant; the cost to treat water, whether through the Water Authority's treatment facilities or one of the member agency's facilities, and other adjustments. There are no planned purchases for dry-year transfers or groundwater storage.

Table 4: Water Sales and Purchases, continued

Water Purchases and Treatment	Volume (AF)			Dollars		
	FY 20	FY 21	Total	FY 20	FY 21	Total
Metropolitan Water District (MWD) Supplies						
Full Service Untreated Water	73,212	66,907	140,119	$ 54,106,572	$ 51,482,211	$ 105,588,783
Untreated TSAWR	38,862	38,108	76,969	28,860,673	29,213,591	58,074,263
RTS				13,460,080	13,447,966	26,908,046
Capacity Charge				8,140,735	8,015,841	16,156,576
Subtotal MWD	**112,074**	**105,015**	**217,088**	**$ 104,568,060**	**$ 102,159,609**	**$ 206,727,668**
Quantification Settlement Agreement (QSA)						
Imperial Irrigation District (IID)	176,250	198,750	375,000	$ 118,570,000	$ 136,585,000	$ 255,155,000
All-American and Coachella Canals	78,200	77,700	155,900	1,133,150	1,282,050	2,415,200
MWD Wheeling Costs for QSA Transfers	254,450	276,450	530,900	119,183,750	135,227,800	254,411,550
Subtotal QSA	**254,450**	**276,450**	**530,900**	**$ 238,886,900**	**$ 273,094,850**	**$ 511,981,750**
Carlsbad Desalination						
Supply Costs	42,000	42,000	84,000	$ 97,933,920	$ 104,279,280	$ 202,213,200
Direct Purchase for Carlsbad and Vallecitos Water Districts	6,000	6,000	12,000	17,997,875	18,428,475	36,426,350
Subtotal Desalination Supply	**48,000**	**48,000**	**96,000**	**$ 115,931,795**	**$ 122,707,755**	**$ 238,639,550**
Treatment						
Metropolitan Water District (MWD)	31,681	31,104	62,785	$ 10,119,883	$ 10,072,822	$ 20,192,705
San Diego County Water Authority (SDCWA)	67,621	71,311	138,932	19,171,185	19,883,634	39,054,819
Helix	16,000	16,000	32,000	2,000,000	2,016,000	4,016,000
Carlsbad Desalination	42,000	42,000	84,000	11,672,640	11,860,800	23,533,440
Subtotal Treatment	**157,302**	**160,415**	**317,717**	**$ 42,963,708**	**$ 43,833,256**	**$ 86,796,964**
Adjustments						
TSAWR Supply Credit	38,862	38,108	76,969	$ 6,766,375	$ 7,286,187	$ 14,052,562
Groundwater Storage Facility Related Supply Costs				505,361	520,522	1,025,883
Reclamation Credits SDCWA	17,208	17,208	34,416	2,976,960	3,418,398	6,395,358
Reclamation Credits MWD	17,904	18,036	35,940	(2,748,408)	(2,946,888)	(5,695,296)
Evaporation & Seepage	9,996	9,996	19,992	7,427,028	7,661,934	15,088,962
SDG&E Pumping Costs				225,000	225,000	450,000
Other				1,000,000	2,000,000	3,000,000
Subtotal Adjustments				**$ 16,152,316**	**$ 18,165,153**	**$ 34,317,469**
TOTAL PURCHASES AND TREATMENT				**$ 518,502,779**	**$ 559,960,623**	**$1,078,463,401**
NET WATER SALES				**$ 114,069,040**	**$ 114,386,536**	**$ 228,455,576**

Note: Totals may not foot due to rounding.

The CIP Budget is viewed both in terms of a lifetime budget and in terms of a two-year appropriation. Table 5 summarizes, by project type, the CIP lifetime budget and the adopted two-year appropriation compared to the previous budget. When a new project is approved by the Board of Directors, it is assigned a lifetime budget. A project's lifetime budget is the estimated cost of the project from design to construction, including post-construction. Due to the length of time a project may be active, the entire lifetime budget is not immediately appropriated to manage cash flow. Funds for CIP expenditures are appropriated for the two-year period through the budget process.

The Amended Lifetime CIP Budget for Fiscal Years 2018 and 2019 was $2.5 billion. The Adopted Lifetime Budget for Fiscal Years 2020 and 2021 is $2.0 billion and reflects a decrease of $0.5 billion, which is associated with the completion of 10 projects. The two-year appropriation of $162.2 million is 18% higher than the prior amended two-year appropriation. The most significant change to the two-year appropriation is the addition of several new projects, scope changes, and an escalation of construction costs. Construction cost estimates for projects in Fiscal Years 2020 and 2021 were updated to incorporate current market conditions.

Table 5: Adopted CIP Budget by Project Type ($ Thousands)

		Two-Year Appropriation	
	Projected Lifetime Budget	FYs 18&19 Amended	FYs 20&21 Adopted
Asset Management	$ 761,939	$ 85,185	$ 66,409
Emergency Storage Program	88,741	23,665	32,144
New Facilities	190,181	17,947	49,693
Other	71,743	3,076	4,032
Master Planning & Studies	27,150	7,745	9,944
Long-Range Forecast Projects	853,871	-	-
CIP BUDGET TOTAL	**$1,993,625**	**$ 137,618**	**$ 162,222**
Completed Projects	*$ 534,974*		

Note: Totals may not foot due to rounding.

As depicted in Figure 3, the Water Authority's CIP expenditures have increased from previous fiscal years.

Figure 3: CIP Budget by Fiscal Year

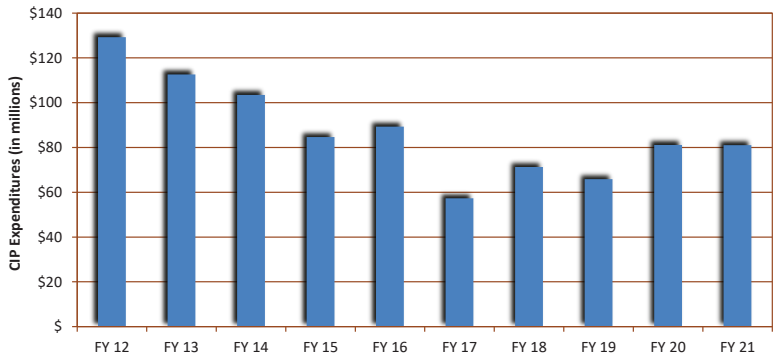


Figure 4 illustrates that 78% of the adopted two-year CIP expenditures will be spent on construction; this is a 5% increase from Fiscal Years 2018 and 2019 primarily due to projects within the Asset Management program entering into construction.

Both the lifetime budget and two-year appropriation are summarized by individual project in the Capital Improvement Program Section of the budget document.

Table 6 identifies the Adopted Fiscal Years 2020 and 2021 Debt Service expense. The table includes the principal and interest payments for short-term and long-term debt. Also included are the fees associated with debt service.

Figure 4: CIP Budget by Project Phase

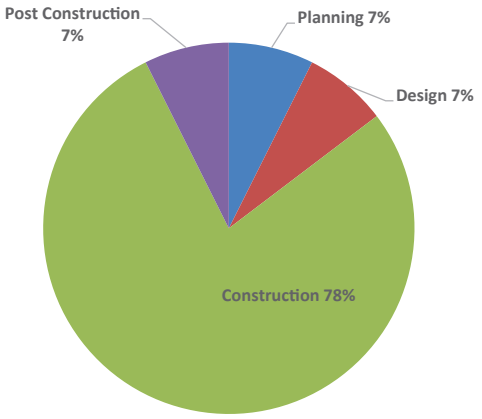


Table 6: Water Authority Debt Service ($ Thousands)

	FYs 18&19 Amended	FYs 20&21 Adopted	Variance Budget to Budget	
Long-term Debt Service				
Water Revenue Certificates of Participation				
Series 1998A	$ 1,110	$ 1,110	$ -	-
Series 2005A	16,910	8,174	(8,736)	-52%
Series 2008A	28,215	9,266	(18,949)	-67%
Water Revenue Bonds				
Series 2010A&B	74,348	69,471	(4,877)	-7%
Series 2011A&B	35,995	53,273	17,278	48%
Series 2013A	41,968	40,709	(1,259)	-3%
Series 2015A	24,770	39,940	15,170	61%
Series 2016A&B	29,634	29,634	-	-
Subtotal	**$ 252,949**	**$ 251,577**	**$ (1,372)**	**-1%**
Water Furnishing Revenue Bonds [1]				
Series 2012	$ 20,322	$ -	$ (20,322)	-
Series 2019	-	17,630	17,630	-
Subtotal	**$ 20,322**	**$ 17,630**	**$ (2,692)**	**-13%**
Short-term Debt Service				
Commercial Paper (Series 8, 9 and ECP Series 1)	$ 17,318	$ 17,465	$ 147	1%
Subordinate Lien Bond, Series 2016S-1	8,169	8,169	-	-
Fees on Debt	2,547	2,591	44	2%
Subtotal	**$ 28,034**	**$ 28,225**	**$ 191**	**1%**
TOTAL DEBT SERVICE	**$ 301,305**	**$ 297,431**	**$ (3,873)**	**-1%**

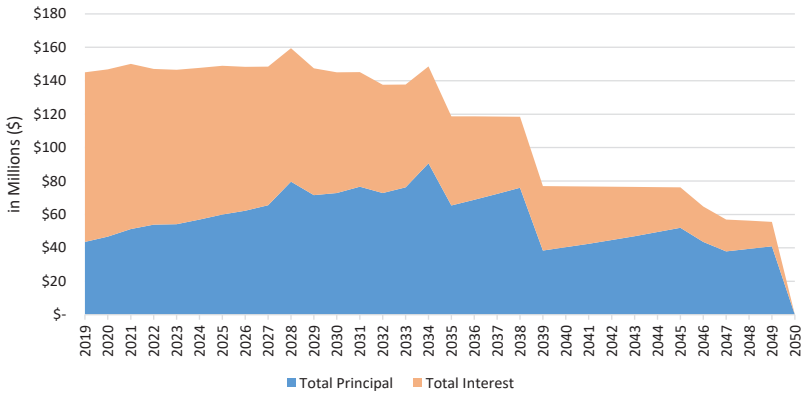
1. The Water Furnishing Revenue Desalination Pipeline Bonds Series 2012 and Series 2019 are subordinate to the pledge of Net Water Revenues for payment of Water Revenue Bonds and Certificates of Participation, Contracts, Reimbursement Obligations and Subordinate Obligations.

The Water Authority's debt service for Fiscal Years 2020 and 2021 is $297.4 million. This budget includes debt service savings from refunding of the Water Furnishing Revenue Desalination Pipeline Bonds Series 2012. The new Water Furnishing Revenue Desalination Pipeline Bonds Series 2019 will save approximately $18.0 million over the life of the bonds.

Current debt service expenditures include outstanding payments on COP issuances, Water Revenue Refunding Bonds issuances, Build America Bonds (BABs) issuance, a non-AMT Tax Exempt issuance, Subordinate Lien Water Revenue Refunding Bonds issuance, and Subordinate Water Furnishing Revenue Desalination Pipeline Bonds. The Water Authority is not planning to issue new monies in Fiscal Years 2020 and 2021.

Figure 5, shown below, depicts all existing short-term and long-term debt payments for the Water Authority.

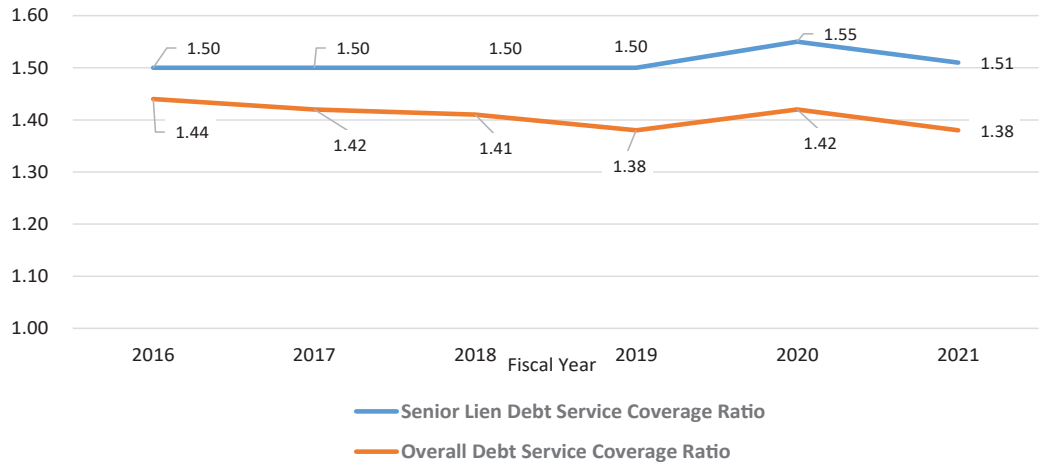
Figure 5: Debt Service Payment Schedule



An important financial performance metric is the debt service coverage ratio (DSCR). Exclusive of the tax revenue and debt service costs associated with voter-approved debt, net water revenues, as defined by the bond covenants, must equal or exceed 1.20 times (x) the annual senior lien debt service payments. The Board target for senior lien debt service coverage is 1.50x.

As shown in Figure 6, the Water Authority projects to achieve the Board target coverage ratio of at least 1.50x in Fiscal Years 2020 and 2021. In addition, the Water Authority will meet an overall debt service coverage ratio of 1.00x as required per bond covenants.

Figure 6: Debt Service Coverage Ratios



Operating Departments Budget

The Operating Departments Budget makes up $108.5 million, or 6%, of the entire Water Authority expenditures budget. Through a series of facilitated executive staff budget development meetings, the Water Authority achieved a budget that addresses the organization's environment and provides funding for key programmatic activities. Table 7 communicates the breakdown of the budget by expenditure type for the adopted budget and compares it to the previous two-year budget period. Figure 7 depicts this information graphically.

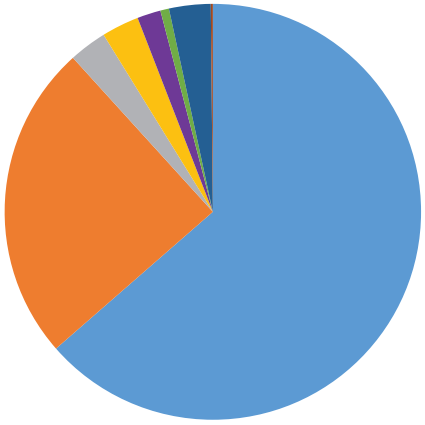
Table 7: Operating Departments Budget by Expenditure Type

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 57,437,591	$ 56,767,643	$ 59,980,218	$ 2,542,627	4%	$ 3,212,575	6%
Benefits	29,334,193	26,520,114	30,317,395	983,202	3%	3,797,281	14%
Labor & Benefits Total	**$ 86,771,784**	**$ 83,287,757**	**$ 90,297,613**	**$ 3,525,829**	**4%**	**$ 7,009,856**	**8%**
Direct Charges to CIP/Grants	(16,220,253)	(15,919,146)	(16,229,595)	(9,342)	-	(310,450)	2%
Operating Labor & Benefits	**$ 70,551,531**	**$ 67,368,611**	**$ 74,068,018**	**$ 3,516,487**	**5%**	**$ 6,699,407**	**10%**
Services	26,317,609	24,404,607	28,771,309	2,453,700	9%	4,366,702	18%
Supplies	3,536,166	3,397,535	3,421,925	(114,241)	-3%	24,391	1%
Utilities	3,322,344	3,047,973	3,387,010	64,666	2%	339,037	11%
Insurance	1,915,423	1,864,957	2,131,181	215,758	11%	266,224	14%
Lease/Rents	803,815	742,905	778,292	(25,522)	-3%	35,388	5%
Other	3,632,609	3,358,918	3,760,996	128,387	4%	402,078	12%
Fixed Assets	260,192	276,128	185,000	(75,192)	-29%	(91,128)	-33%
Non Personnel Total	**$ 39,788,158**	**$ 37,093,022**	**$ 42,435,714**	**$ 2,647,556**	**7%**	**$ 5,342,692**	**14%**
Total	110,339,688	104,461,633	116,503,732	6,164,044	6%	12,042,099	12%
Capitalized Overhead	(7,137,593)	(6,900,383)	(8,000,449)	(862,856)	12%	(1,100,065)	16%
GRAND TOTAL	**$ 103,202,095**	**$ 97,561,250**	**$ 108,503,283**	**$ 5,301,188**	**5%**	**$ 10,942,033**	**11%**

Note: Totals may not foot due to rounding.

Figure 7: Operating Departments Budget by Expenditure Type ($ Thousands) [1]

Operating Labor & Benefits	$ 74,068	64%
Services	28,771	25%
Supplies	3,422	3%
Utilities	3,387	3%
Insurance	2,131	2%
Leases & Rent	778	<1%
Other	3,761	3%
Fixed Asset	185	<1%
	$ 116,504	**100%**



1. Excludes capitalized overhead

SERVICES

Services expenditures include professional, technical, legal, and financial services. The Services line item budget is $28.8 million, or 25%, of the Operating Departments budget excluding capitalized overhead. In total, Services are $2.5 million more than the prior two-year budget period. The primary reason for this increase is the addition of maintenance cost sharing for Lake Hodges and San Vicente Reservoir.

SUPPLIES

Supplies expenditures include necessary supplies and minor equipment for operating and maintaining our facilities. The Supplies category is $3.4 million, or 3%, of the Operating Departments budget excluding capitalized overhead. This slight decrease is due to savings in maintenance materials and electronic supplies in support of operations.

UTILITIES

Utilities expenditures include costs for gas, electricity, water, sewer, and telephone charges. The Utilities category is $3.4 million or 3%, of the Operating Departments budget excluding capitalized overhead. It is anticipated that Utilities will increase slightly by $64,666, or 2%, in the upcoming period.

INSURANCE

Insurance expenditures include premium costs associated with property and workers' compensation insurance, as well as costs incurred for unemployment claims. The Insurance category is $2.1 million, or 2%, of the Operating Departments budget excluding capitalized overhead. In comparison with the previous two-year budget period, Insurance is projecting an increase of $215,758, or 11%. This increase is a result of anticipated increases in liability and workers' compensation insurance premiums.

LEASES AND RENT

Leases and Rent expenditures include office, facility, and equipment rentals. The Leases and Rent category is $778,292, or 1%, of the Operating Departments budget excluding capitalized overhead. Expenditures for Leases and Rent is expected to decrease by $25,522, or 3%, primarily associated with reductions in equipment rentals and copier leases.

OTHER

Other expenditures include costs for travel, training, memberships, sponsorships, permits, and licenses. This expenditure category is $3.8 million, or 3%, of the Operating Departments budget excluding capitalized overhead. Overall, there is $128,387, or 4%, increase from the prior two-year budget which is primarily due to an increase in membership and sponsorship expenses.

FIXED ASSET

Fixed Asset expenditures include the purchase of assets, not associated with the CIP. These expenses are one-time and the Water Authority is projecting a decrease of $75,192, or 29%, compared to the prior two-year period when several one-time purchases for major maintenance equipment were made.

Table 8 lists by department the adopted budget for Fiscal Years 2020 and 2021 and provides a comparison with the previous two-year budget period. Figure 8 graphically depicts that the single largest department in the Water Authority is the Operations and Maintenance Department, which represents one-third of Water Authority Operating Department expenditures.

The details of each department, including a discussion of significant budget changes, are provided in the Operating Departments Section of this document.

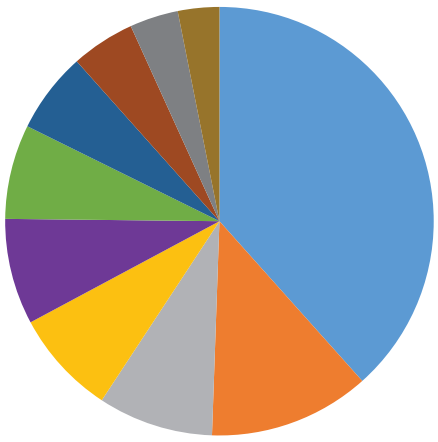
Table 8: Operating Departments Budget by Department

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Administrative Services	$ 11,917,782	$ 11,703,402	$ 13,199,531	$ 1,281,749	11%	$ 1,496,129	13%
Colorado River Program	3,521,606	3,321,275	3,391,846	(129,760)	-4%	70,571	2%
Engineering	7,656,312	7,105,426	7,737,816	81,504	1%	632,393	9%
Finance	4,939,185	4,820,875	5,216,872	277,687	6%	395,998	8%
General Counsel	6,795,957	6,819,853	6,614,636	(181,321)	-3%	(205,216)	-3%
General Manager & Board of Directors	9,252,612	8,507,245	9,439,491	186,879	2%	932,246	11%
MWD Program	4,286,991	4,193,651	3,976,603	(310,388)	-7%	(217,048)	-5%
Operations & Maintenance	38,757,861	36,508,393	41,653,899	2,896,038	7%	5,145,505	14%
Public Outreach & Conservation	7,981,211	7,000,374	8,597,925	616,714	8%	1,597,551	23%
Water Resources	8,092,576	7,580,758	8,674,663	582,087	7%	1,093,905	14%
TOTAL OPERATING DEPARTMENTS	**$ 103,202,095**	**$ 97,561,250**	**$ 108,503,283**	**$ 5,301,188**	**5%**	**$ 10,942,033**	**11%**

Note: Totals may not foot due to rounding.

Figure 8: Operating Budget by Department ($ Thousands)

Operations & Maintenance	$ 41,654	38%
Administrative Services	13,200	12%
General Manager & Board of Directors	9,439	9%
Water Resources	8,675	8%
Public Outreach & Conservation	8,598	8%
Engineering	7,738	7%
General Counsel	6,615	6%
Finance	5,217	5%
MWD Program	3,977	4%
Colorado River Program	3,392	3%
	$ 108,503	**100%**



Water Authority Labor and Benefits

The adopted two-year budget for Labor and Benefits will increase by approximately 4% overall in comparison with the previous budget period. This includes the addition of 1.00 full-time equivalent (FTE) position beginning in Fiscal Year 2020.

In total, Labor and Benefits are projected to be $90.3 million, an increase of $3.5 million in comparison with the prior two-year budget. Labor and Benefits are calculated for the entire Water Authority and then allocated between the Operating Departments and other reimbursable funds, like CIP or grants, as depicted in Table 9. Of the total adopted budget for Labor and Benefits, $74.1 million, or 82%, represents the Operating Department's expense and $16.2 million, or 18%, will be directly charged to CIP or grants.

The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority Budget. Department budgets may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.

Table 9: Distribution of Labor and Benefits by Fund

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Operating	$ 70,551,531	$ 67,368,611	$ 74,068,018	$ 3,516,487	5%	$ 6,699,407	10%
Direct Charges to CIP/Grants	16,220,253	15,919,146	16,229,595	9,342	-	310,450	2%
TOTAL	**$ 86,771,784**	**$ 83,287,757**	**$ 90,297,613**	**$ 3,525,829**	**4%**	**$ 7,009,856**	**8%**

The primary factors influencing the adopted budget for Labor and Benefits are summarized below:

Addition of 1.00 FTE

- Overall, the Water Authority will increase budgeted FTEs by 1.00 from Fiscal Year 2019. This is due to the addition of one position in the Operations and Maintenance Department. This new position replaces a professional services contract for asset management and will primarily be funded through the Capital Improvement Program. This new position nets an overall savings to the Water Authority due to reduced costs. Further details on the FTE addition can be found in the Operating Departments Section of this document.

  This change reflects the continuation of efforts the Water Authority has taken to address the infrastructure management needs for the region. FTEs are based on the percentage of a fiscal year (represented by 2,080 working hours) the position will be funded.

Classification Study

- In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and address the changing needs of the workforce. Changes from the Classification Study are reflected in the Operating Departments adopted budget for Fiscal Years 2020 and 2021 and are shown in each departments' Personnel Requirements table in the Operating Departments Section of this document.

Table 10: Budgeted Full-Time Equivalents

	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Regular Employees	254.50	253.17	252.50	253.65	247.40	247.40	254.50	254.50	255.50	255.50
Limited Duration Employees (LDE)	4.83	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
TOTAL	**259.33**	**254.50**	**253.50**	**254.65**	**248.40**	**248.40**	**255.50**	**255.50**	**256.50**	**256.50**
Difference from Prior Fiscal Year		-4.83	-1.00	1.15	-6.25	0.00	7.10	0.00	1.00	0.00
Cumulative Change from FY 12		-4.83	-5.83	-4.68	-10.93	-10.93	-3.83	-3.83	-2.83	-2.83

INCREASE IN BENEFITS FOR RETIREMENT AND HEALTH CARE COSTS

There are no anticipated increases to health care costs for Fiscal Years 2020 and 2021. As depicted in Table 11, the Employer Contribution rate as set by CalPERS is expected to increase 1.6-2.1% over each of the next two fiscal years. In Fiscal Year 2019 the Water Authority Board of Directors established a pension funding policy framework to achieve a target pension funded ratio range, the number of years to reach the target range, and establish a funding source and funding vehicle to reach the target range. As a result, the Water Authority has budgeted $2.0 million in Fiscal Years 2020 and 2021 consistent with the policy framework.

Table 11: CalPERS Contribution Rates

	FY 17	FY 18	FY 19	FY 20	FY 21 [1]
EMPLOYER RATE	**23.90%**	**25.51%**	**24.09%**	**26.22%**	**27.80%**

1. Estimated

The Water Authority continuously monitors the CalPERS Unfunded Accrued Liability (UAL) and Other Post-Employment Benefits (OPEB) liability. OPEB assets are held in the California Employers' Retiree Benefit Trust (CERBT). The Fiscal Year 2017 CalPERS UAL funded ratio was 71.6%. The Fiscal Year 2018 CalPERS UAL increased to 75.6%. The Fiscal Year 2017 OPEB liability funded ratio was 119.5% and increased to 130.6% in Fiscal Year 2018. More information on the CalPERS UAL and the OPEB liability can be found in the Water Authority's Comprehensive Annual Financial Report.

This page intentionally left blank

Overview

This section provides a detailed description of the Water Authority Sources of Funds, Uses of Funds, Historical and Projected Operating Results, Five-Year Financial Forecast, and Sources and Uses by Fund Type – All Funds. Additional background and descriptions of sources and uses is provided in Appendix C.

Water Authority Sources of Funds

The Water Authority's primary sources of funds, or revenue, include Water Sales and Capital Contributions. In addition, fund balance withdrawals for proceeds from the issuance of short-term and long-term debt may be used.

Table 1 provides a comparison of the adopted two-year budgeted revenue sources to previous budget periods.

Table 1: Sources of Funds ($ Thousands)

	FYs 16&17 Actual	FYs 18&19 Amended	FYs 18&19 Estimate	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Revenues & Other Income								
Water Sales	$ 1,103,992	$ 1,302,329	$ 1,192,052	$ 1,306,919	$ 4,590	<1%	$ 114,867	10%
Infrastructure Access Charges	61,579	67,991	67,996	81,656	13,665	20%	13,660	20%
Property Taxes & In-lieu Charges	24,981	25,361	26,560	28,304	2,944	12%	1,745	7%
Investment Income	8,223	10,422	10,986	11,501	1,079	10%	515	5%
Hydroelectric Revenue	6,368	7,106	7,895	7,350	244	3%	(545)	-7%
Grant Reimbursement	18,508	26,635	15,195	27,327	692	3%	12,132	80%
Build America Bond Subsidy (BABS)	21,071	22,606	21,133	21,104	(1,502)	-7%	(28)	0%
Other Income	9,060	985	10,932	2,528	1,543	156%	(8,404)	-77%
Capital Contributions:								
Capacity Charges	36,919	33,424	44,949	33,220	(204)	<1%	(11,729)	-26%
Water Standby Availability Charges	22,180	22,245	22,233	22,221	(24)	0%	(12)	0%
Contributions in Aid of CIP	1,011	1,683	129	1,855	172	10%	1,726	1335%
Total Revenues & Other Income	**$ 1,313,891**	**$1,520,786**	**$ 1,420,060**	**$ 1,543,985**	**23,199**	**2%**	**$ 123,925**	**9%**
Net Fund Withdraws	148,325	82,341	63,433	143,581	61,239	74%	80,148	126%
TOTAL SOURCES OF FUNDS	**$ 1,462,216**	**$1,603,128**	**$ 1,483,493**	**$ 1,687,566**	**$ 84,438**	**5%**	**$ 204,073**	**14%**

Note: Totals may not foot due to rounding.

Total Revenues and Other Income are $1.5 billion, or slightly higher than the previous amended budget. The Water Authority will be utilizing withdrawals from the Rate Stabilization Fund (RSF) balance to mitigate rate impacts due to increased water supply and water reliability costs. The increase in Net Fund Withdraws is attributed to an increase in Capital Improvement Program (CIP) expenditures and projected withdraws on the Rate Stabilization Fund. As a result of these factors, there is an overall increase of $84.4 million, or 5%, in total sources of funding for the Water Authority.

The following pages provide more detail on each of the revenue categories.

WATER SALES REVENUE

Water Sales revenue is the largest source of revenue for the Water Authority, accounting for 77% of total revenues for the Fiscal Years 2020 and 2021 budget period. Water Sales include: the Customer Service Charge, Storage Charge, Metropolitan Water District (MWD) Readiness-To-Serve Charge, MWD Capacity Charge, the Supply Reliability Charge, and revenues generated by Melded Municipal and Industrial (M&I) Supply, Melded M&I Treatment, Transportation, Transitional Special Agricultural Water Rate (TSAWR), and water delivery rates.

The adopted budget for Water Sales is $1.3 billion, reflecting a $4.6 million, or less than 1%, increase from the prior two-year budget period. This increase is less than the adopted adjustment to rates and charges, and reflects a decreasing sales environment. Water Sales revenue is closely correlated to the costs to purchase and treat water, which is explained in more detail in the Uses of Funds section of this document.

The primary drivers of Water Sales are the volumes of water the Water Authority expects to sell (projected water demands) and the pass-through of MWD's rates and charges. The projected water demands for this multi-year budget period are based upon the recent demand trends, available local supplies, current economic conditions, and planned operational changed-condition events. Figure 1, depicts the significant change in actual and projected volumes the Water Authority has experienced since Fiscal Year 2014.

In Fiscal Year 2019, Water Sales are currently projected to be 10% below the Fiscal Years 2018 and 2019 budget projections as a result of above average rainfall and fewer deliveries. The Fiscal Year 2019 budgeted Water Sales were 440,000 acre-feet, current Fiscal Year 2019 Water Sales projections are 393,000 acre-feet.

Overall, the Water Authority has adopted an increase in rates and charges of 4.3% for treated water and 4.8% for untreated water for Calendar Year 2020 when compared to Calendar Year 2019 "All-In" rate. The "All-In" rate is comprised of the Water Authority's fixed and variable rates and charges. An estimated increase for Calendar Year 2021 of 3% to 5% is anticipated. The Calendar Year 2021 estimate is based on current projected revenue requirements and will need to be approved by the Board before adoption. Tables 2a and 2b provide a historical perspective of the Water Authority's rates and charges. Calendar Year 2019 adopted rates were based on forecasted water sales volumes at the time rates were set.

In addition, Water Sales revenue includes MWD's rate and charge increase of 2.7% (treated), effective January 1, 2020 and increases of 3.3% (treated), 4.4% (untreated), and 6.4% (QSA transportation).

Figure 1: Water Sales Volumes

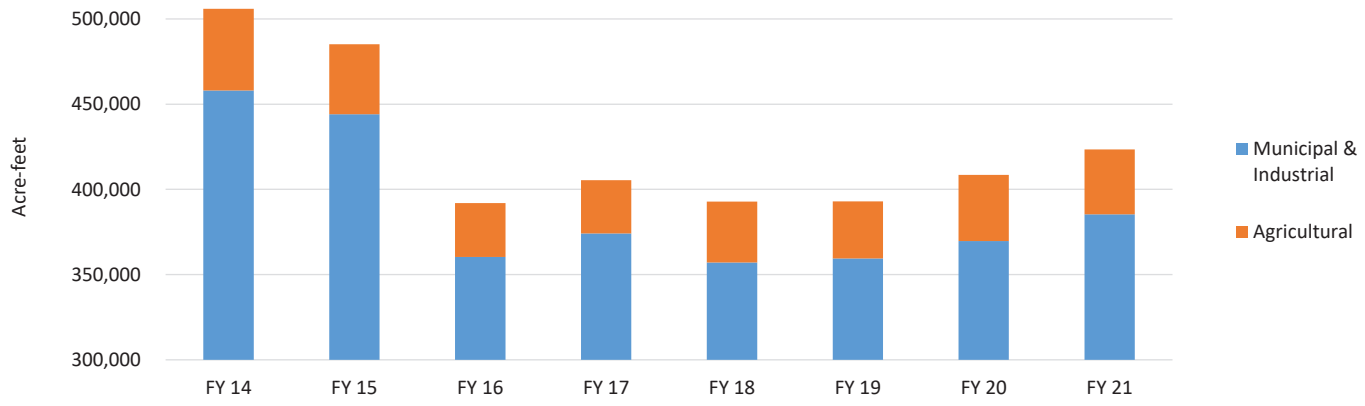


Table 2a,b: Water Authority Rates and Charges on a Per Acre-Foot Basis

(a) Municipal and Industrial (M&I) Rates

	CY 16 Rates	CY 17 Rates	CY 18 Rates	CY 19 Rates	CY 20 Adopted Rates
Untreated Melded M&I Supply Rate	$ 780	$ 855	$ 894	$ 909	$ 925
Melded Treated Rate	280	290	300	276	280
Transportation Rate	105	110	115	120	132
Storage Charge [1]	165	167	162	171	181
Customer Service Charge [1]	63	61	61	61	64
Supply Reliability Charge [1]	67	63	71	80	104
TOTAL	**$1,460**	**$1,546**	**$1,603**	**$1,617**	**$1,686**

(b) Transitional Special Agricultural Water Rate (TSAWR)

	CY 16 Rates	CY 17 Rates	CY 18 Rates	CY 19 Rates	CY 20 Adopted Rates
MWD Supply Rate	$ 594	$ 666	$594	$ 731	$ 755
Melded Treatment Rate	280	290	280	276	280
Transportation Rate	105	110	105	120	132
Customer Service Charge [1]	63	61	63	61	64
TOTAL	**$1,042**	**$1,127**	**$1,042**	**$1,188**	**$ 1,231**

1. Fixed charges converted to acre-foot basis.

INFRASTRUCTURE ACCESS CHARGES (IAC)

The IAC is a fixed charge to help stabilize the Water Authority's fixed revenues by mitigating water sales revenue volatility from sudden changes in water demand/availability and/or economic cycles. The IAC is levied on all retail water meters within the Water Authority's service area. The IAC shall be set at an amount which, when added to the Water Standby Availability, Property Tax and In-Lieu revenues, will provide funding for at least 25% of the Water Authority's estimated fixed annual costs. Fixed costs include, but are not limited to, annual debt service payments, Pay-As-You-GO (PAYGO) capital, and 80% of annual Operations and Maintenance (O&M) expenditures. The IAC's fixed revenues are viewed favorably, as they are not prone to volatility in water sales and provide baseline revenue. The IAC revenues have the added benefit of enabling greater flexibility in using reserves as potential revenue shortfalls are limited.

The adopted IAC revenue budget for Fiscal Years 2020 and 2021 is $81.6 million, an increase of $13.7 million, or 20%. This change in revenue reflects a change in the monthly per meter equivalent (ME) charge from $3.01 for Calendar Year 2019 to $3.66 in Calendar Year 2020, this also includes a slight increase in the total number of MEs to which the charge is applied.

PROPERTY TAXES AND IN-LIEU CHARGES

The Water Authority is authorized under the County Water Authority Act (Act) to levy taxes on all taxable property within its boundaries for the purpose of carrying on its operations and paying its obligations, subject to certain limitations in the Act, the Revenue and Taxation Code, and the California Constitution.

Property Taxes are collected by the County of San Diego and then remitted to the Water Authority throughout the year. The tax rate is based upon the San Diego County Assessor's valuation of taxable property within the Water Authority's service area. In addition, the Water Authority collects an In-Lieu Charge from the City of San Diego.

Revenue from Property Tax and In-Lieu Charges is estimated to be $28.3 million reflecting a 7% growth rate over estimated receipts in Fiscal Years 2018 and 2019.

INVESTMENT INCOME

The Water Authority receives revenue from investing its cash balances. Investment Income received on the cash balances in the Operating Fund, Rate Stabilization Fund, and Debt Service Reserve Fund is available for general Water Authority operating expenditures. Investment Income received in the PAYGO Fund is restricted to pay for capital expenditures or debt service. Similarly, investment income received for the Construction Fund is used for construction expenditures.

The Investment Income is estimated to be $11.5 million, an increase of $1.1 million, or 10%, from the previous two-year budget. Primarily, the increase in investment returns are a result of the implementation of the Water Authority's Investment Strategy. The implemented strategy provided the Water Authority a well-diversified investment approach that emphasized high credit quality, strong management of risk and liquidity, while also enhancing investment returns.

HYDROELECTRIC REVENUE

The Water Authority owns and operates the 4.5 megawatt (MW) Rancho Peñasquitos Hydro-generation and Pressure Control Facility (Rancho Hydro), and the 40 MW Lake Hodges Pumped Storage Facility (Hodges Hydro). The Water Authority has an agreement to operate the Hodges Hydro in coordination with San Diego Gas and Electric (SDG&E) and receives revenue based on facility availability. The Hodges Hydro Agreement expires in 2037.

The Rancho Hydro agreement expired in January 2017, the Water Authority is currently working with SDG&E to secure a new arrangement to use or sell the power. In the interim, power generated from Rancho Hydro will be sold to the California Independent System Operator (CAISO) wholesale energy market. With the expiration of the agreement, an outside scheduling coordinator was contracted to assist in actively managing power sales and renewable energy credits. This approach has resulted in increased revenues and the facility is expected to produce an estimated $1.2 million in revenue during Fiscal Years 2018 and 2019, exceeding projections by over $500,000. The revenue projections for Fiscal Years 2020 and 2021 are expected to be $1.5 million.

The Hodges Hydro facility performed well during Fiscal Years 2018 and 2019 expecting to produce approximately $6.3 million in revenue, exceeding the projections by over $700,000. This is due in part to the Operations and Maintenance Department's first full year of operation which produced a higher level of facility availability than historically when operated by an outside company. The revenue projections for Fiscal Year 2020 and 2021 forecast a similar level of performance as seen during Fiscal Years 2018 and 2019. Table 3, illustrates the net value of this revenue source including the expenses associated with operating these facilities.

Expenses for Rancho Hydro averaged $98,000 per year in Fiscal Years 2018 and 2019, including the interconnection tariff and scheduling coordinator required to export power to the regional electrical

system. In addition to the projected routine maintenance for this facility, two major Capital Improvement Program shutdowns are included in the adopted CIP appropriation for Fiscal Years 2020 and 2021. For the upcoming budget period, the estimated expenses only associated with hydroelectric operations of Hodges Hydro and Rancho Hydro are identified in Table 3. Additional information on the Energy Program can be found in Appendix D.

Table 3: Hydroelectric Revenue and Expense

	FYs 18&19 Amended	FYs 18&19 Estimate	FYs 20&21 Adopted	Variance Budget to Budget	%	Variance Budget to Estimate	%
Revenue							
Olivenhain-Hodges Pumped Storage Facility	$5,600,000	$ 6,356,000	$ 5,600,000	$ -	-	$ (756,000)	-12%
Rancho Peñasquitos Hydroelectric Facility	633,600	1,150,000	1,500,000	(866,400)	137%	350,000	30%
TOTAL REVENUE	**$6,233,600**	**$ 7,506,000**	**$ 7,100,000**	**$ (866,400)**	**14%**	**$ (406,000)**	**-5%**
Expenses							
Olivenhain-Hodges Pumped Storage Facility	$3,282,259	$ 3,414,000	$ 2,292,000	$ (990,259)	-30%	$ (1,122,000)	-33%
Rancho Peñasquitos Hydroelectric Facility	611,518	196,000	206,000	(405,518)	-66%	10,000	5%
TOTAL EXPENSES	**$ 3,893,777**	**$ 3,610,000**	**$ 2,498,000**	**$ (1,395,777)**	**-36%**	**$ (1,112,000)**	**-31%**
Net	**$2,339,823**	**$ 3,896,000**	**$ 4,602,000**	**$ 2,262,177**	**97%**	**$ 706,000**	**18%**

GRANT REIMBURSEMENTS

The Water Authority has actively pursued and been successful at obtaining grant funding to help leverage ratepayer investments in its programs and services. Grant Reimbursements consist of reimbursements from various sources including State grant programs, and may contain pass-through funding for other government agencies and/or non-profit organizations. The Fiscal Years 2020 and 2021 adopted budget is $27.3 million, an increase of $0.7 million, or 3%, from the previous amended budget. Additional information on Grant Expenditures can be found on page 49.

BUILD AMERICA BONDS SUBSIDY

The Build America Bonds Subsidy represents the subsidy from the U.S. Treasury for the Build America Bonds, which is projected to be $21.1 million for the upcoming two-year budget, a decrease of $1.5 million, or 7% reflecting a continued decline due to the elimination of sequestration by the Federal Government.

OTHER INCOME

The Fiscal Years 2020 and 2021 budget is $2.5 million. Other Income includes reimbursements from member agencies for the Water Authority's administration of direct purchases of desalinated water from Poseidon Water. In addition, the Water Authority may receive nominal amounts of revenue received from annexations, easements, gains/losses on the sale of assets, delinquency fees, and plan-check reimbursements. In Fiscal Year 2020 the Water Authority is projecting to receive approximately $2.0 million in sales tax reimbursements from the Claude "Bud" Lewis Carlsbad Desalination Plant construction.

CAPITAL CONTRIBUTIONS

Capital Contributions are independent of water use and intended to fund costs associated with new system capacity/reliability or maintain existing system capacity/reliability. The use of Capital Contributions revenue is restricted to paying for Capital Improvement Program (CIP) projects and is deposited into the PAYGO Fund.

Capital Contributions are made up of Capacity Charges (System and Treatment), Water Standby Availability Charges, and Contributions in Aid of CIP (CIAC).

Capacity Charges

- Capacity Charges include System Capacity Charges and Treatment Capacity Charges. System Capacity Charges recover a proportionate share of the capital costs associated with providing services to new connections in the Water Authority's service area and is applied to all new or larger retail water meters installed, if certain criteria are met. Treatment Capacity Charges recover a portion of the capital costs from future users of the Water Authority's regional water treatment facility. Because meter size dictates the maximum water demand of a new customer, the Capacity Charges are based upon meter size.

  In Fiscal Years 2020 and 2021, the System and Treatment Capacity Charges revenues budget is $33.2 million, which reflects a decrease of less than 1%, over the previous two-year budget due to projected slower growth. The System and Treatment Capacity Charges were evaluated during a Cost of Service Study during Fiscal Year 2019 resulting in a slight increase to the charge to reflect inflation.

Water Standby Availability Charges

- The Water Standby Availability Charge is limited by statute and funds some of the capital costs associated with maintaining the system. This charge is $10 per acre per year, or $10 per year for a parcel less than one acre. The Water Standby Availability Charges revenue budget for Fiscal Years 2020 and 2021 is $22.2 million. This revenue source remains steady due to the nature of the charge.

Contributions in Aid of CIP (CIAC)

- This revenue source consists of grants or contributions from member agencies for capital projects. In some instances, a member agency may reimburse the Water Authority for improvements to their system as part of a Water Authority project. Typically, these revenues are restricted to specific projects/uses and because they are tied to capital projects will fluctuate each year. In Fiscal Years 2020 and 2021, the CIAC revenues budget is $1.9 million reflecting planned reimbursements for miscellaneous projects.

NET FUND WITHDRAWS

Net Fund Withdraws provides another source of funds for the Water Authority. The primary source of fund withdraws is bond proceeds to provide funding for CIP projects, other capital-restricted monies from the PAYGO Fund, and purchases of water to be stored in the San Vicente Reservoir. For Fiscal Years 2020 and 2021, fund withdraws are projected to be $143.6 million, an increase of 74% primarily due to an increase in cash funded CIP projects, requiring withdraws from the PAYGO Fund, and an increase in anticipated withdraws from the RSF. The anticipated withdraws from the RSF during this two-year period are $38.0 million in Fiscal Year 2020 and $33.0 million in Fiscal Year 2021.

Water Authority Uses of Funds

The Water Authority's primary uses of funds include Water Purchases and Treatment, CIP, Debt Service, and the Operating Departments Budget. The Water Authority's historical and budgeted uses of funds are shown below in Table 4. This table compares the uses of funds in this adopted budget with the prior budget period. The most significant expense or use of funds category is Water Purchases and Treatment. The following pages describe these categories and their significant changes.

Table 4: Uses of Funds Fiscal Years 2016-2021 ($ Thousands)

	FYs 16&17 Actual	FYs 18&19 Amended	FYs 18&19 Estimate	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Expenditures								
Water Purchases & Treatment	$ 817,684	$1,029,543	$ 915,872	$ 1,078,463	$ 48,920	5%	$ 162,592	18%
Stored Water Purchases	72,083	-	-	-	-	-	-	-
CIP Expenditures	146,661	137,618	137,160	162,222	24,604	18%	25,062	18%
Debt Service [1]	271,561	280,945	290,015	297,432	16,487	6%	7,417	3%
QSA Mitigation [2]	24,011	18,829	18,829	4,711	(14,119)	-75%	(14,119)	-75%
Operating Departments	94,396	103,202	96,650	108,503	5,301	5%	11,853	12%
Equipment Replacement	4,029	4,855	4,442	6,024	1,169	24%	1,582	36%
Grant Expenditures	20,712	27,135	18,004	26,323	(812)	-3%	8,319	46%
Other Expenditures	11,079	1,000	2,520	3,888	2,888	289%	1,368	54%
TOTAL USES OF FUNDS	**$1,462,216**	**$1,603,128**	**$ 1,483,493**	**$ 1,687,566**	**$ 84,438**	**5%**	**$ 204,073**	**14%**

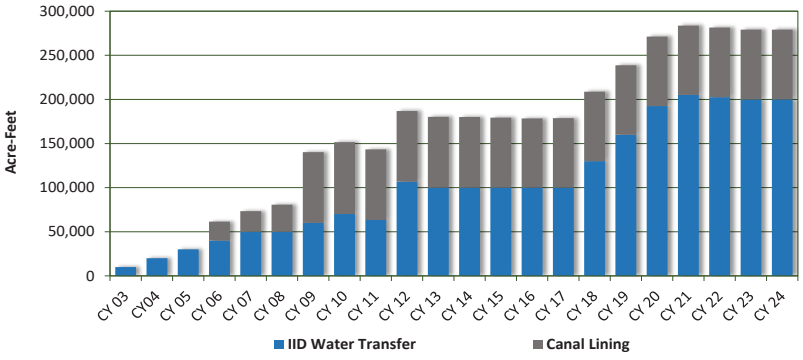
1. Debt Service for Fiscal Years 2018 and 2019 not inclusive of super-subordinate Series 2012 Desalination Pipeline Bonds.
2. Quantification Settlement Agreement (QSA) Mitigation includes QSA Joint Powers Authority (JPA) contributions, environmental mitigation, and payments for Socioeconomic Mitigation Settlement.
Totals may not foot due to rounding.

WATER PURCHASES AND TREATMENT

Water Purchases and Treatment include all expenditures made by the Water Authority for purchasing, transporting, and treating water from various sources. In addition, credits received via MWD's Local Water Supply Development, Local Resources Program, and Groundwater Resources Program are applied against the cost of water purchased. The primary components of the Water Purchases and Treatment budget are broken down as follows: MWD and Quatification Settlement Agreement (QSA) supplies, Carlsbad Desalination, and Treatment. For a detailed breakdown of expenses by category, see page 29.

The Water Authority purchases supplies from MWD and includes the variable costs for full-service untreated water and MWD's fixed costs for Readiness-to-Serve (RTS) and Capacity Charges. The Water Authority is budgeting significantly less for supplies from MWD as a result of water supplies from the Claude "Bud" Lewis Carlsbad Desalination Plant and increased water transfer deliveries from the Imperial Irrigation District (IID).

Figure 2: IID and Canal Lining Deliveries



The 2003 QSA provides for large-scale water transfers between IID and the Water Authority, and enabled the lining of portions of the All-American and Coachella Canals. Based on the terms of the take-or-pay contract, if water is conserved, the Water Authority is required to purchase 192,500 acre-feet (AF) from IID in Calendar Year 2020 and 205,000 AF in Calendar Year 2021. The Water Authority is also entitled to 80,000 AF annually as a result of the canal linings. These volumes are an increase from the previous budget period; volumes will increase until 2021, as depicted in Figure 2.

The Claude "Bud" Lewis Carlsbad Desalination Plant began commercial operations in December 2015. Approved by the Board in November 2012, the Water Purchase Agreement (WPA) sets forth the price of water dependent on how much is purchased annually:

- The first 48,000 AF of water purchased each year will pay the fixed costs of the project and the variable costs of water production.
- The Water Authority has the option to purchase an additional 8,000 AF per year at a lower rate that reflects only the variable costs of incremental water production.

Carlsbad Municipal Water District and Vallecitos Water District have contracted with the Water Authority to purchase 6,000 AF of the Water Authority's minimum annual demand commitment to Poseidon Water of 48,000 AF at full cost recovery to the Water Authority. If the Water Authority purchases the additional 8,000 AF, Carlsbad Municipal Water District and Vallecitos Water District will be eligible to purchase up to 1,000 AF per year between the two agencies at the lower rate reflecting the variable costs of incremental water.

The Water Authority incurs costs to purchase treated water directly from MWD and costs for treating water at Twin Oaks Valley Water Treatment Plant (Water Authority owned facility) or the Levy Plant (Helix Water District owned facility). In addition, as approved by the Board, the incidental treatment benefit is assigned as a treatment cost at the existing Water Authority melded treatment rate. This results from the fact that the desalinated water produced at the Carlsbad Plant meets all state and federal drinking water regulations.

The Water Purchases and Treatment Budget is $1.1 billion representing $206.7 million in supplies from MWD, $511.9 million in QSA costs, $238.6 million for Carlsbad Desalination Plant water, $86.8 million for treatment, and $34.3 million for other adjustments. The increase of $48.9 million, or 5%, primarily reflects the increased cost to purchase MWD water and transport QSA water. Additionally, purchases of desalinated water from Poseidon and increased water transfers from IID contribute to the increase. No new funds are provided for local water supply development in the adopted budget.

STORED WATER PURCHASES

The Water Authority budgets for the purchase of water for storage in inventory. There are no planned stored water purchases for Fiscal Years 2020 and 2021. The Water Authority provides for planned purchases through deposits to the Stored Water Fund.

CAPITAL IMPROVEMENT PROGRAM

The Water Authority initiated its CIP in 1989 as a long-range plan to ensure that the region's water supply would be reliable. In 2004, after careful consideration of water rate impacts, the Board approved the Regional Water Facilities Master Plan, updated in Fiscal Years 2014 and 2015, to implement water supply, transportation, and storage projects over the 30-year forecast horizon to ensure the Water Authority meets the projected needs of the region. CIP projects are designed to enhance, expand, and repair the regional pipeline system, which typically supplies 90% of the region's water. The CIP is funded from cash and short-term and long-term debt proceeds.

The total adopted CIP lifetime budget for active projects is $2.0 billion. The adopted budget for Fiscal Years 2020 and 2021 is $162.2 million, an increase of 18% from the prior two-year budget period. This increase is due to several new projects which have been added to the CIP as well as other projects' budget increases due to scope changes and escalation of construction costs. The CIP is presented in more detail in the Capital Improvement Program Section of this document.

DEBT SERVICE

The Water Authority uses debt to fund improvements to existing facilities and new CIP projects, or to refund previous debt (long-term debt only). The adopted budget for debt service is $297.4 million, an increase of 6%, which incorporates the subordinate lien debt associated with the Carlsbad Desalination Project pipeline, and increased principal payments for the 2011A, 2011B, and 2015A Water Revenue Refunding Bonds. The Water Authority's Fiscal Years 2020 and 2021 obligation for senior lien debt service is $251.6 million. Total debt service is adjusted to include subordinate and super-subordinate obligation payments.

Future Debt

- The Water Authority regularly reviews refunding opportunities that can reduce the cost of debt service. No new debt is currently forecasted for Fiscal Years 2020 and 2021.

Outstanding Debt

- As of May 1, 2019 the Water Authority has $1.5 billion aggregate principal amount of long-term debt outstanding. Budgeted long-term debt service expenditures include outstanding payments on Water Revenue Certificates of Participation (COPs) issuances, Series 1998A and 2008A, Water Revenue Refunding COPs issuance, Series 2005A, Water Revenue Refunding Bonds issuances, Series 2011A, 2011B, 2013A, 2015A, 2016A, and 2016B, a Build America Bonds (BABs) issuance, and a non-AMT Tax Exempt issuance. Table 5, on page 48, provides a breakdown of principal and interest payments on the long-term debt service payments by fiscal year.

- The Water Authority's short-term debt includes one Subordinate Lien Water Revenue Refunding Bonds issuance, Series 2016S-1, three outstanding commercial paper series, Series 8, Series 9, and ECP Series 1, and one super-suboridnate Water Furnishing Revenue Bonds issuance, Series 2019.

Table 5: Debt Service on Existing Long-Term Debt [1]

Fiscal Year	Total Principal	Total Interest	Total Debt Service
2020	$ 44,925,000	$ 83,943,673	$ 128,868,673
2021 [2]	49,040,000	81,836,873	130,876,873
2022	51,410,000	75,373,810	126,783,810
2023	51,290,000	72,885,623	124,175,623
2024	53,700,000	70,471,573	124,171,573
2025	56,325,000	67,846,573	124,171,573
2026	58,210,000	65,010,578	123,220,578
2027	61,005,000	62,090,088	123,095,088
2028	74,705,000	59,049,752	133,754,752
2029	66,105,000	55,267,070	121,372,070
2030	66,815,000	51,882,160	118,697,160
2031	69,950,000	48,458,564	118,408,564
2032	65,525,000	44,874,917	110,399,917
2033	68,305,000	41,864,356	110,169,356
2034	82,020,000	38,655,318	120,675,318
2035	56,070,000	34,314,086	90,384,086
2036	58,650,000	31,260,738	89,910,738
2037	61,360,000	28,068,432	89,428,432
2038	64,175,000	24,730,214	88,905,214
2039	25,670,000	21,240,549	46,910,549
2040	26,695,000	19,664,924	46,359,924
2041	27,765,000	18,026,385	45,791,385
2042	28,870,000	16,322,170	45,192,170
2043	30,020,000	14,550,129	44,570,129
2044	31,220,000	12,707,501	43,927,501
2045	32,465,000	10,791,218	43,256,218
2046	33,760,000	8,798,516	42,558,516
2047	35,110,000	6,726,327	41,836,327
2048	36,510,000	4,571,276	41,081,276
2049	37,965,000	2,330,292	40,295,292
2050	-	-	-
TOTAL	**$ 1,505,635,000**	**$ 1,173,613,684**	**$ 2,679,248,684**

1. Excludes the Series 2019 Desalination Pipeline Bonds.
2. Assumes $87,685,000 in principal related to the Series 2016S-1 in Fiscal Year 2021 will be refunded with short-term debt.

QUANTIFICATION SETTLEMENT AGREEMENT MITIGATION

This category reflects scheduled payments to the QSA Joint Powers Agreement (JPA) for environmental mitigation pursuant to the QSA JPA Creation and Funding Agreement. The adopted budget for Fiscal Years 2020 and 2021 is $4.7 million, which reflects the November 2014 Board authorization to advance $10.0 million over six years beginning in Fiscal Year 2016 to the QSA JPA to meet the cash

flow requirements for environmental mitigation obligations. The adopted budget for Fiscal Years 2020 and 2021 also reflects a 75% decrease from Fiscal Years 2018 and 2019 due to a significant decrease in scheduled payments.

OPERATING DEPARTMENTS BUDGET

The Operating Departments Budget funds the day-to-day operations of the Water Authority and makes up 6% of the Water Authority's total expenditures. The Fiscal Years 2020 and 2021 adopted operating budget of $108.5 million reflects an increase of $5.3 million, or 5%. The adopted budget includes $5.9 million in non-discretionary increases, the largest of which was a $3.2 million increase the Water Authority's cost share of O&M and capital modification costs at shared facilities. Excluding the non-discretionary increases, the Operating Department Budget remained flat. This reflects the continued efforts to improve operational efficiencies while providing the service the Water Authority's stakeholders have come to expect. In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classificiaton requirements and address the changing needs of the workforce. Additional details are provided in the Operating Departments Section of this document.

EQUIPMENT REPLACEMENT

In conjunction with the Water Authority's budget development process, departments evaluate and recommend equipment replacement purchases based on a thorough process in which equipment and vehicles are reviewed to evaluate the necessity to the overall operations; suitability with the function being performed; past repair history; anticipated costs to continue maintaining; and options to cost effectively replace (i.e. lease, rental, and/or used purchases). During Fiscal Year 2019 Water Authority staff performed an Equipment Replacement Fund (ERF) study, created a comprehensive ERF assets list and adopted a new ERF policy. The updated policy focuses on long range planning and will help moderate the fund balance as well as smooth the impact of replacing expensive equipment such as vehicles or software. The Equipment Replacement adopted budget of $6.0 million is a $1.2 million increase over the previous budget period and includes updates to the Supervisory Control and Data Acquisition (SCADA) system, computers and servers, and critical vehicle and equipment replacements.

GRANT EXPENDITURES

The majority of Grant Expenditures represent funds associated with the State of California Integrated Regional Water Management Program (IRWMP). During the upcoming budget period, the Water Authority has or will have approximately 40 different projects supported by funds from Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act (2006); and the Water Quality, Supply, and Infrastructure Improvement Act (2014) under Proposition 1. Some of these projects are directly controlled by the Water Authority, but a vast majority are under the purview of member agencies, local non-profits, and tribes. The adopted budget for Grant Expenditures is $26.3 million. The budgeted figures may be impacted by the schedule of the projects being funded.

OTHER EXPENDITURES

Other Expenditures includes all miscellaneous expenditures that are not reflected in the above expenditure categories. In Fiscal Year 2019 the Water Authority Board of Directors established a pension funding policy framework to achieve a target pension funded ratio range and established a funding source and funding vehicle to reach the target range. As a result, $2.0 million is included in the Other Expenditures consistent with the policy framework. The total adopted budget for Fiscal Years 2020 and 2021 Other Expenditures budget is $3.9 million.

HISTORICAL AND PROJECTED OPERATING RESULTS

Table 6 presents revenues and expenditures pursuant to the Water Authority's Board Resolution 97-52. The table calculates the Water Authority's debt service coverage ratios according to the resolution. Information presented in Table 6 are consistent with results presented during the rate setting process and may differ from budgetary figures due to the treatment of expenses and revenues for rates and budget.

Table 6: Historical and Projected Operating Results ($ Thousands)

	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
OPERATING REVENUE						
Water Sales	$ 524,935	$ 579,057	$ 591,809	$ 611,965	$ 620,220	$ 642,169
Water Standby Availability Charges	11,088	11,091	11,103	11,108	11,109	11,110
Capacity Charges	15,839	21,081	28,154	16,921	16,956	17,267
Infrastructure Access Charges	30,434	31,145	32,482	32,585	36,829	44,827
TOTAL OPERATING REVENUE	**$ 582,296**	**$ 642,374**	**$ 663,548**	**$ 672,579**	**$ 685,114**	**$ 715,373**
Plus Withdrawals from or Minus Deposits to the Rate Stabilization Fund	(10,300)	(8,673)	(18,399)	22,000	38,000	33,000
BABs Interest Rate Subsidy	10,544	10,527	10,546	11,303	10,565	10,539
Non-operating Revenue	6,724	6,013	15,691	9,865	10,549	10,136
TOTAL REVENUE	**$ 589,264**	**$ 650,240**	**$ 671,386**	**$ 715,746**	**$ 744,228**	**$ 769,048**
OPERATING EXPENSES						
MWD Water Purchases	387,123	430,561	442,369	491,898	511,716	537,767
Other Maintenance & Operations Costs	41,123	42,626	50,314	51,719	53,810	54,992
Other Expenses						
TOTAL OPERATING EXPENSES	**$ 428,246**	**$ 473,187**	**$ 492,683**	**$ 543,617**	**$ 565,526**	**$ 592,759**
Application of Net Tax Receipts	12,067	12,913	13,754	13,464	13,733	14,008
NET OPERATING EXPENSES	**$ 416,179**	**$ 460,273**	**$ 478,929**	**$ 530,153**	**$ 551,792**	**$ 578,751**
Net Water Revenue Available for Debt Service	173,085	189,967	192,457	185,594	192,435	190,297
REVENUE SUPPORTED DEBT SERVICE						
1998 Certificates	555	555	555	555	555	555
2005 Certificates	16,771	17,157	16,057	725	725	7,450
2008 Certificates	19,504	16,832	18,899	9,172	9,266	0
2010A&B Bond	38,505	37,145	37,144	37,175	37,177	32,294
2011A Bond	13,230	13,224	13,234	13,292	13,294	13,290
2011B Bond	4,707	4,707	4,707	4,707	4,707	21,982
2013A Bond	13,982	13,982	13,982	27,987	27,986	12,723
2015A Bond	6,905	8,910	8,910	15,860	16,257	23,683
2016A&B Bond	1,054	14,093	14,817	14,817	14,817	14,817
TOTAL SENIOR LIEN DEBT SERVICE	**$ 115,213**	**$ 126,605**	**$ 128,304**	**$ 124,289**	**$ 124,784**	**$ 126,793**
SUBORDINATE OBLIGATION PAYMENTS						
Commercial Paper	543	2,524	3,766	6,125	7,000	7,875
2011S-1 Bond	3,916	-	-	-	-	-
2016S-1 Bond	290	3,885	4,084	4,084	4,084	4,084
TOTAL SUBORDINATE OBLIGATION PAYMENTS	**$ 4,749**	**$ 6,408**	**$ 7,850**	**$ 10,209**	**$ 11,084**	**$ 11,959**
OVERALL DEBT SERVICE	**$ 119,962**	**$ 133,013**	**$ 136,154**	**$ 134,498**	**$ 135,869**	**$ 138,752**
Commercial Paper Management Fees	1,382	1,329	1,178	1,239	1,276	1,315
Super-subordinate Obligation Payments [1]	4,402	6,384	9,422	10,030	10,030	10,030
Senior Lien Debt Service Coverage Ratio	1.50X	1.50X	1.50X	1.50X	1.55X	1.51X
Overall Debt Service Coverage Ratio	1.44X	1.43X	1.41X	1.38X	1.42X	1.38X

1. The 2012 and 2019 Pipeline Bonds are super-subordinate and are not included in the debt service coverage calculation ratio. Investment Income earned on short-term and long-term debt proceeds is excluded.

FIVE-YEAR FINANCIAL FORECAST

The five-year financial forecast, as shown in Table 7, provides the projected sources and uses for Fiscal Year 2022 through Fiscal Year 2026. These projections reflect the expected trends while incorporating the current policies, goals and objectives of the Water Authority. The forecast presented contains the most recent financial modeling data on rates, revenue sources, future capital improvement projects, and debt management.

Table 7: Five-Year Forecast ($ Thousands)

	FY 22	FY 23	FY 24	FY 25	FY 26
Net Water Sales Revenue					
Water Sales	$ 684,688	$ 712,895	$ 722,564	$ 726,770	$ 732,604
Water Purchases & Treatment	566,994	582,677	580,818	582,597	595,819
TOTAL NET WATER SALES REVENUE	**$ 117,694**	**$ 130,218**	**$ 141,745**	**$ 144,173**	**$ 136,785**
Revenues & Other Income					
Infrastructure Access Charges	49,254	49,662	50,334	51,458	52,587
Property Taxes & In-Lieu Charges	14,288	14,574	14,865	15,163	15,466
Investment Income	2,796	2,675	2,743	2,992	3,009
BABs Interest Rate Subsidy	10,565	10,539	10,518	10,497	10,476
Hydroelectric Revenue	4,006	4,006	4,006	4,006	4,006
Grant Revenue	14,500	8,000	8,000	8,000	8,000
Other Income	297	305	315	325	335
Capital Contributions:					
Capacity Charges	8,005	7,998	7,991	7,983	7,976
Water Standby Availability Charges	11,135	11,157	11,180	11,202	11,225
TOTAL REVENUES & OTHER INCOME	**$ 114,846**	**$ 108,916**	**$ 109,952**	**$ 111,626**	**$ 113,080**
Expenditures					
Stored Water Purchases	$ -	$ -	$ -	$ -	$ -
Debt Service	126,784	124,176	124,172	124,172	123,221
QSA Mitigation [1]	3,994	1,892	1,601	1,729	1,206
Operating Departments	55,706	57,377	59,098	60,871	62,698
Equipment Replacement	3,803	2,116	2,579	2,029	2,500
Grant Expenditures	14,500	8,000	8,000	8,000	8,000
Other Expenditures	-	-	-	-	-
TOTAL EXPENDITURES	**$ 204,787**	**$ 193,561**	**$ 195,450**	**$ 196,801**	**$ 197,624**
Net Revenue before Capital Improvement Program (CIP)	*27,753*	*45,573*	*56,247*	*58,998*	*52,241*
CIP Expenditures	*(49,710)*	*(39,263)*	*(42,034)*	*(66,096)*	*(24,534)*
Net Fund Withdraws	*(21,957)*	*6,310*	*14,213*	*(7,098)*	*27,707*

1. QSA Mitigation includes QSA JPA Contributions, environmental mitigation, and payments for Lower CO River Multi Species Conservation Program.

Totals may not foot due to rounding.

Tables 8a and 8b show, by each adopted fiscal year, the Water Authority's sources and uses by fund, the net fund withdraws, net interfund transfers, proceeds from debt issues, and projected year-end fund balances.

Table 8a: Fiscal Year 2020 Budgeted Sources and Uses by Fund Type ($ Thousands)

			RESERVE FUNDS				CAPITAL FUNDS		
	ALL FUNDS	Operating FUND	Debt Service	Equipment Replacement	Rate Stabilization	Stored Water	Construction	PAYGO	Special Use Funds
Beginning Cash Balance (estimated)	*$ 333,882*	*$ 94,913*	*$ 22,930*	*$ 930*	*$ 132,950*	$ -	$ -	*$ 82,159*	$ -
Net Water Sales Revenue									
Water Sales	632,572	632,572	-	-	-	-	-	-	-
Water Purchases & Treatment	518,503	518,503	-	-	-	-	-	-	-
TOTAL NET WATER SALES REVENUE	**$ 114,069**	**$ 114,069**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Revenues and Other Income									
Infrastructure Access Charges	36,829	36,829	-	-	-	-	-	-	-
Property Taxes & In-lieu Charges	14,012	14,012	-	-	-	-	-	-	-
Investment Income	5,967	1,401	794	34	1,614	-	-	2,124	-
Hydroelectric Revenue	3,675	3,675	-	-	-	-	-	-	-
Grant Reimbursements	19,185	-	-	-	-	-	-	-	19,185
Build America Bonds Subsidy	10,565	10,565	-	-	-	-	-	-	-
Other Income	2,264	-	-	-	-	-	-	-	2,264
Capital Contributions:									
Capacity Charges	16,463	-	-	-	-	-	-	16,463	-
Water Standby Availability Charges	11,110	-	-	-	-	-	-	11,110	-
Contributions in Aid of CIP	800	-	-	-	-	-	-	800	-
TOTAL REVENUES AND OTHER INCOME	**$ 120,870**	**$ 66,482**	**$ 794**	**$ 34**	**$ 1,614**	**$ -**	**$ -**	**$ 30,497**	**$ 21,449**
Expenditures									
Stored Water Purchases	-	-	-	-	-	-	-	-	-
Debt Service	147,712	147,712	-	-	-	-	-	-	-
QSA Mitigation [1]	2,810	-	-	-	-	-	-	2,810	-
Operating Departments	55,160	55,160	-	-	-	-	-	-	-
Hodges Pumped Storage	-	-	-	-	-	-	-	-	-
Equipment Replacement	3,174	-	-	3,174	-	-	-	-	-
Grant Expenditures	18,392	125	-	-	-	-	-	-	18,267
Other Expenditures	2,244	1,380	-	-	-	-	-	-	864
TOTAL EXPENDITURES	**$ 229,492**	**$ 204,377**	**$ -**	**$ 3,174**	**$ -**	**$ -**	**$ -**	**$ 2,810**	**$ 19,131**
Net Revenues Before CIP	**$ 5,447**	**$ (23,826)**	**$ 794**	**$ (3,140)**	**$ 1,614**	**$ -**	**$ -**	**$ 27,687**	**$ 2,319**
CIP Expenditures	(81,409)	-	-	-	-	-	-	(81,409)	-
Net Fund Withdraws & Bond Proceeds	(75,962)	(23,826)	794	(3,140)	1,614	-	-	(53,722)	2,319
Net Interfund Transfers	-	32,950	(794)	3,174	(38,000)	-	-	2,671	-
Projected Year-End Balances	**$ 257,920**	**$ 104,036**	**$ 22,930**	**$ 964**	**$ 96,563**	**$ -**	**$ -**	**$ 31,107**	**$ 2,319**

1. QSA Mitigation includes QSA JPA Contributions, environmental mitigation, and payments for Socioeconomic Mitigation Settlement.

Totals may not foot due to rounding.

Table 8b: Fiscal Year 2021 Budgeted Sources and Uses by Fund Type ($ Thousands)

			RESERVE FUNDS				CAPITAL FUNDS		
	ALL FUNDS	Operating FUND	Debt Service	Equipment Replacement	Rate Stabilization	Stored Water	Construction	PAYGO	Special Use Funds
Beginning Cash Balance (estimated)	*$ 257,920*	*$ 104,036*	*$ 22,930*	*$ 964*	*$ 96,563*	*$ -*	*$ -*	*$ 31,107*	*$ 2,319*
Net Water Sales Revenue									
Water Sales	674,347	674,347	-	-	-	-	-	-	-
Water Purchases & Treatment	559,961	559,961	-	-	-	-	-	-	-
TOTAL NET WATER SALES REVENUE	**$ 114,387**	**$ 114,387**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Revenues and Other Income									
Infrastructure Access Charges	44,827	44,827	-	-	-	-	-	-	-
Property Taxes & In-lieu Charges	14,292	14,292	-	-	-	-	-	-	-
Investment Income	5,534	1,449	726	34	1,603	-	-	1,722	-
Hydroelectric Revenue	3,675	3,675	-	-	-	-	-	-	-
Grant Reimbursements	8,142	-	-	-	-	-	-	-	8,142
Build America Bonds Subsidy	10,539	10,539	-	-	-	-	-	-	-
Other Income	264	-	-	-	-	-	-	-	264
Capital Contributions:									
Capacity Charges	16,757	-	-	-	-	-	-	16,757	-
Water Standby Availability Charges	11,111	-	-	-	-	-	-	11,111	-
Contributions in Aid of CIP	1,055	-	-	-	-	-	-	1,055	-
TOTAL REVENUES AND OTHER INCOME	**$ 116,196**	**$74,783**	**$ 726**	**$34**	**$ 1,603**	**$ -**	**$ -**	**$ 30,645**	**$ 8,406**
Expenditures									
Stored Water Purchases	-	-	-	-	-	-	-	-	-
Debt Service	149,720	149,720	-	-	-	-	-	-	-
QSA Mitigation [1]	1,901	-	-	-	-	-	-	1,901	-
Operating Departments	53,343	53,343	-	-	-	-	-	-	-
Hodges Pumped Storage	-	-	-	-	-	-	-	-	-
Equipment Replacement	2,850	-	-	2,850	-	-	-	-	-
Grant Expenditures	7,931	125	-	-	-	-	-	-	7,806
Other Expenditures	1,644	1,380	-	-	-	-	-	-	264
TOTAL EXPENDITURES	**$ 217,388**	**$ 204,568**	**$ -**	**$ 2,850**	**$ -**	**$ -**	**$ -**	**$ 1,901**	**$ 8,070**
Net Revenues Before CIP	**$ 13,194**	**$ (15,399)**	**$ 726**	**$ (2,816)**	**$ 1,603**	**$ -**	**$ -**	**$ 28,744**	**$ 335**
CIP Expenditures	(80,813)	-	-	-	-	-	-	(80,813)	-
Net Fund Withdraws & Bond Proceeds	(67,618)	(15,399)	726	(2,816)	1,603	-	-	(52,069)	335
Net Interfund Transfers	-	2,126	(689)	2,562	(33,000)	-	-	29,000	-
Projected Year-End Balances	**$ 190,301**	**$ 90,764**	**$ 22,968**	**$ 711**	**$ 65,167**	**$ -**	**$ -**	**$ 8,038**	**$ 2,654**

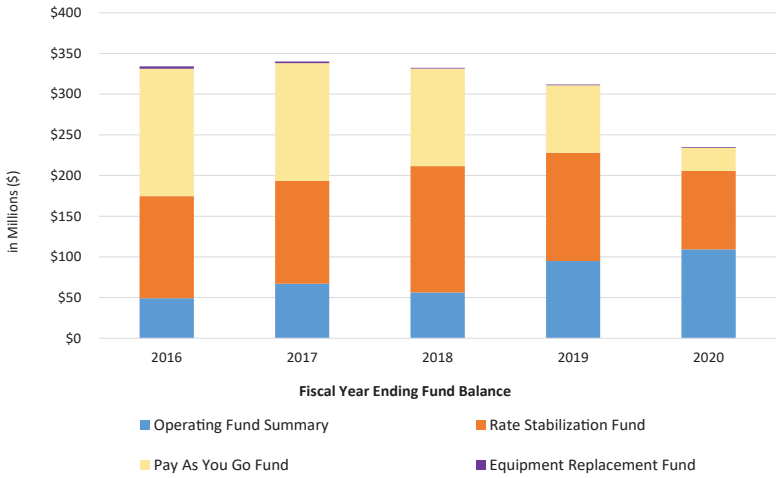
1. QSA Mitigation includes QSA JPA Contributions, environmental mitigation, and payments for Socioeconomic Mitigation Settlement.

Totals may not foot due to rounding.

The management of the Water Authority's funds is an important component of the overall health of the Water Authority's finances. Each of the funds within the Water Authority is designed to serve a specific purpose/function as described in the upcoming pages.

Figure 3 depicts the historical and budgeted, cash and cash equivalents held at fiscal year-end for each fund.

Figure 3: Budgeted Cash Balances by Fund



OPERATING FUND

The Operating Fund contains the Water Authority's working capital and emergency operating reserve. Given the short-term nature of this fund, liquidity of investments is critical and is ensured by investing the Operating Fund on a monthly basis to cover water purchases and on-going cash disbursements.

The Operating Fund, together with Water Sales Revenue and Other Revenue Sources, provide ample liquidity for working capital. The Operating Fund's policy requires a maximum of 45 days of average annual operating expenditure be kept in reserves. In addition, $5.0 million of this amount is designated and held available for emergency repairs to the Water Authority's system due to unforeseen events. The Operating Fund is projected to meet its 45-day reserve goals.

RESERVE FUNDS

The Water Authority has four reserve funds, including Debt Service, Equipment Replacement, Rate Stabilization, and Stored Water.

Debt Service Reserve Fund

- The Debt Service Reserve Fund contains the required legal reserve for Water Authority debt issues. Such reserves are held for the purpose of making an issue's annual debt service payments in the event that the Water Authority should be unable to make such payments. The reserve requirement is held in this fund until it is expended, generally to fund the last payment of the issue. Interest earned on the Debt Service Reserve Fund is transferred into the Operating Fund and is not restricted.

Equipment Replacement Fund

- The Equipment Replacement Fund is funded by transfers from the Operating Fund for capital equipment purchase such as computers, vehicles, and the Supervisory Control and Data Acquisition (SCADA) system, and is used to replace equipment that has reached the end of its effective useful life.

Rate Stabilization Fund

- The Rate Stabilization Fund (RSF) holds the water revenues greater than expenditures in years of strong water sales. Funds can then be used to mitigate "rate shock" in years of weak water sales and/or to manage debt service coverage.

The RSF target balance is equal to the financial impact of 2.5 years of wet weather or mandatory restrictions and the maximum fund balance is equal to the financial impact of 3.5 years of wet weather or mandatory restrictions. Effective January 1, 2019, the financial impact was revised down from a 25% reduction in water sales to 15% effective Calendar Year 2021. A two-year transition period (Calendar Year 2019 and Calendar Year 2020) assumes a 20% reduction.

As a general rule, the Water Authority will transfer portions of its net water revenues exceeding the Board's 1.50x debt service coverage policy into the RSF. From time to time, as needed, the Water Authority will transfer amounts from its RSF into water revenues to meet its debt service ratio requirements, or to help provide adequate working capital to the Operating Fund.

The Water Authority expects to withdraw $38.0 million in Fiscal Year 2020 and $33.0 million in Fiscal Year 2021 from the RSF to mitigate rate impacts due to increased water supply costs.

Stored Water Fund

- The Stored Water Fund (previously the Dam-Fill Fund) provides the working capital necessary to purchase water inventory necessary to utilize the Water Authority's storage facilities. In Fiscal Year 2016, the Water Authority completed the fill of the San Vicente Dam and updated the policy guidelines for the Stored Water Fund. The new guidelines established a target 70,000 acre-feet for Carryover Storage inventory. The Stored Water Fund will maintain the funds necessary to maintain the Carryover Storage levels at 70,000 acre-feet. A maximum for the Carryover Storage level was also set at 100,000 acre-feet, which is the storage capacity.

CAPITAL FUNDS

The Water Authority has two types of Capital Funds, including the Construction and PAYGO Funds.

Construction Fund

- The Construction Fund contains the proceeds from short-term and long-term debt. Investment earnings from the fund remain in the fund and may only be used for construction expenditures.

  The Construction Fund balance fluctuates with CIP spending and debt issuances. Because there are no planned debt issuances for this budget period, no funds are expected to be held in this fund.

Pay-As-You-Go-Fund

- The PAYGO Fund collects Capacity Charges and Water Standby Availability Charges to be used to pay for the cash portion of the CIP. The funds are dedicated for construction outlays, as well as debt service. The fund also holds the CIAC from the Water Authority's member agencies in cases where the Water Authority constructs a project on the behalf of the member agency. In Fiscal Years 2020 and 2021 a significant amount of the CIP will be funded through the PAYGO fund.

This page intentionally left blank

Introduction

The Operating Departments preserve the Water Authority's legacy on water issues statewide, uphold the public trust as a partner with its member agencies and community stakeholders, and maintain operational excellence of the region's large-scale water infrastructure.

The 2019-2023 Business Plan (Plan) serves as the overarching planning document for the Water Authority in accomplishing its mission and vision. The Plan is organized into three key focus areas:

Water Supply | **Water Facilities** | **Business Services**

Similarly, the Operating Departments Section of this budget document is organized, alphabetically, under each key focus area.

The Water Supply Focus Area addresses the long-term viability, sustainability, and diversification of the Water Authority's water supplies. Programs and departments that support this focus area are:

- Colorado River Program
- MWD Program
- Water Resources

The Water Facilities Focus Area addresses facility growth, operations, maintenance, and security in a cost-effective manner to meet water demands in the San Diego region. Departments that support this focus area are:

- Engineering
- Operations and Maintenance

The Business Services Focus Area provides fundamental operational support for the Water Authority to accomplish its mission of providing a safe and reliable water supply. Departments that support this focus area are:

- Administrative Services
- Finance
- General Counsel
- General Manager and Board of Directors
- Public Outreach and Conservation

Mission, Vision, Values

Our Mission

To provide a safe and reliable supply of water to its member agencies serving the San Diego region.

Our Vision

Over our history, and in partnership with our member agencies, we have had to overcome many obstacles to provide a reliable water supply to a thriving, semi-arid San Diego region.

We've secured new supply sources to power our economy and quality of life, and forged a reputation for bold thinking and big initiatives.

To sustain this success, secure our water future and triumph over tomorrow's challenges, we must be:

Pioneering.
Visionary.
Agile.
Driven.

That's who we are.
That's what we do.

San Diego County Water Authority

Our Values

We will consider our partner agencies' and stakeholders' interests in our decisions.

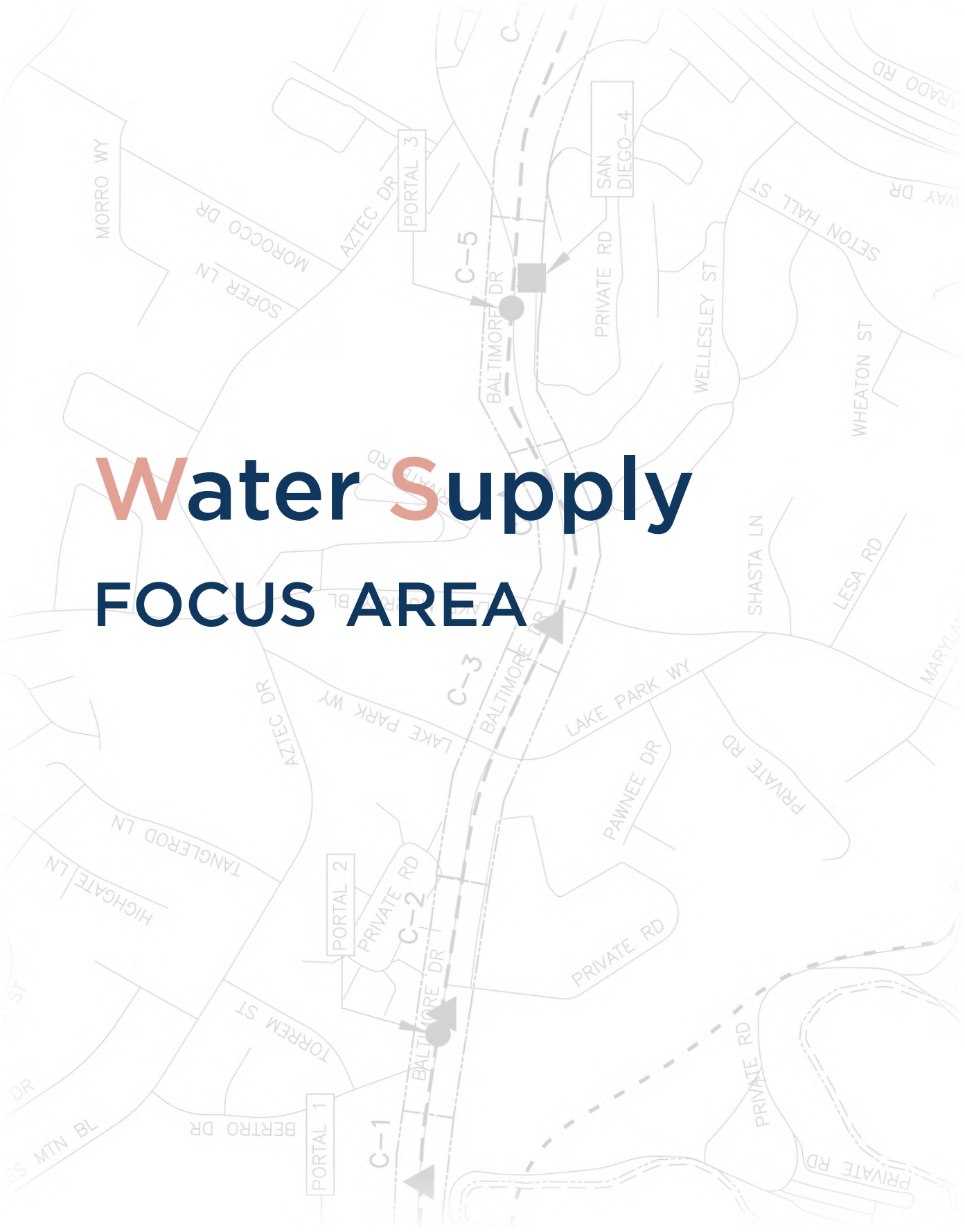
We will do our work in the most cost effective-ways.

We will have open communications with our partner agencies and the public.

We will have an open and inclusive policy development process.

We value diversity in the water supply.

We value long-range planning.



Water Supply

FOCUS AREA

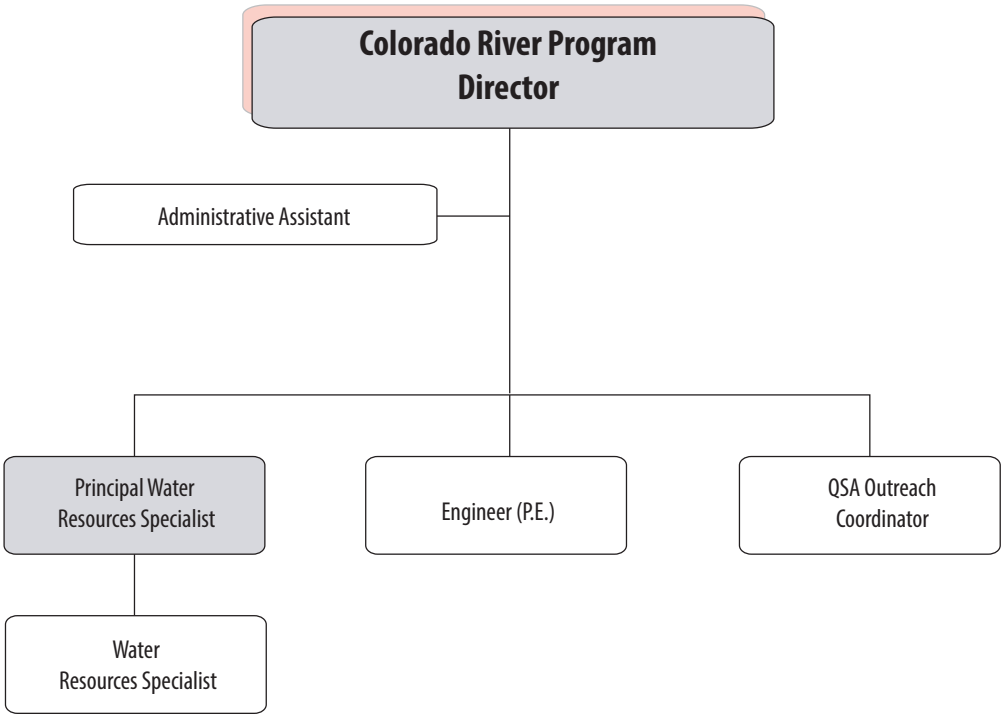
This page intentionally left blank

Colorado River Program

OVERVIEW

Colorado River Program advocates the Water Authority's position on developing state and federal issues associated with the Quantification Settlement Agreement (QSA) and Seven Basin States agreements, including environmental issues at the Salton Sea. Following a decade of litigation challenging the legality of the QSA contracts, the Water Authority successfully defended the QSA agreements, and all remaining appeals were dismissed in May 2015. Going forward, a vital component is the completion of upcoming QSA milestones to ensure timely creation and delivery of the scheduled volumes of Imperial Irrigation District (IID) conserved water transfer and canal lining supplies. The satellite office in the Imperial Valley drives the Water Authority's advocacy efforts on QSA and Salton Sea issues and maintains a local presence to engage with stakeholders.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Managed the continued implementation of the IID water transfer and canal lining projects requirements which resulted in 420,000 acre-feet of water supply to the region.
- Experienced consecutive favorable IID transfer supply rate increases of less than 2% per year.
- Extended the exchange agreement for the conveyance of conserved Colorado River water with the Metropolitan Water District of Southern California from 35 years to 45 years, aligning that agreement with the Water Authority's transfer agreement with IID.
- Continued to provide support for QSA Joint Powers Authority (JPA) administration activities and matters related to Salton Sea environmental activities:
  - Administered activities of the QSA JPA, including adoption of an annual budget to ensure appropriate funding for environmental mitigation requirements.
  - Met QSA environmental mitigation responsibilities and milestones, shifting focus from providing mitigation flows to the Salton Sea to more permanent and robust on-the-ground air quality projects.
  - Assisted authoring the Revised Water Order (Stipulated Order), approved by the State Water Resources Control Board in November 2017, to strengthen the state's restoration responsibilities through its Salton Sea Management Program by establishing annual milestones the state must achieve in addressing exposed playa at the sea.
  - Participated in various Salton Sea stakeholder work groups.
  - Met with state and federal elected officials to recount the benefits of the QSA to California, the status of successful mitigation efforts and explain the need for collaboration amongst state and federal parties on matters such as the Colorado River Drought Contingency Plan.
- Continued implementation of environmental mitigation projects on time and on budget for All-American and Coachella Canal Lining Projects.
- Administered Water Authority's portion of operations, maintenance, and repair costs for both canal lining projects which has resulted in cost increases at a rate less than general inflation.

- Continued efforts to build community and regional support in the Imperial and Coachella Valleys:
  - Attended local meetings of the IID, Imperial County, farm groups, chambers and Coachella Valley Water District (CVWD) meetings, ensuring the Water Authority's stance on critical issues was understood and latest information on the QSA status was understood.
  - Held one-on-one meetings with local government and community leaders, farmers and business representatives to discuss critical water issues.
  - Sponsored community events that provided opportunities to share the Water Authority's mission with the community.
  - Hosted Water Authority facilities and water supply diversification tour for Imperial Valley elected officials and community leaders.
  - Held board-to-board meetings with IID, Imperial County Board of Supervisors, CVWD, and local farming groups.
  - Presented to the Imperial Valley community on Water Authority diversification efforts.
  - Maintained a website and blog (ivsandiegocurrents.org) to build awareness on water issues, respond to questions, and enhance relationships in the Imperial Valley.
- Participated and supported Water Authority's representative on the Colorado River Board of California (CRB), including attending monthly board meetings and participating in CRB sponsored events.
- Provided updates to the Water Authority Board on key issues related to:
  - Water Authority QSA supplies, Colorado River hydrology and operations, and Seven Basin States activities related to drought contingency planning.
  - QSA JPA mitigation and state restoration efforts at the Salton Sea.
  - Canal lining project mitigation, operations, and maintenance activities.
  - Imperial Valley outreach activities.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Colorado River Program's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $3.4 million, a $129,760, or a 4% decrease compared to the previous two-year budget. The net change is primarily a result of an increase in personnel-related expenses and a decrease in the Water Authority's 10% share of the CRB's annual budget, or $151,250, over the next two fiscal years.

Initiatives

The Colorado River Program is part of the Imported Water program of the Business Plan. The program's management strategies and focus objectives this multi-year budget include:

- Develop flexibility in Quantification Settlement Agreement implementation. (Business Objective Nos. 2, 3, 6, and 7 under Water Supply: Imported Water).
- Safeguard Water Authority investments from outside influences. (Business Objective Nos. 2, 3, 6, 8, and 9 under Water Supply: Imported Water).
- Ensure completion of Quantification Settlement Agreement environmental mitigation milestones and Salton Sea activities. (Business Objective Nos. 7, 8, and 9 under Water Supply: Imported Water).
- Leverage opportunities to increase involvement in Colorado River Basin-wide programs, including storage opportunities in Lake Mead. (Business Objective Nos. 2, 3, 6, and 9 under Water Supply: Imported Water).
- Advance Water Authority Quantification Settlement Agreement policy through continuing dialogue with governing bodies, elected officials, and the public. (Business Objective Nos. 2, 3, 7, 8, and 9 under Water Supply: Imported Water).
- Continue to explore the viability of alternative conveyance of the QSA Supplies (Business Objective No. 6 under Water Supply: Imported Water). This is included as the Regional Conveyance System Study in the adopted Capital Improvement Program budget.

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.
- The Colorado River Program labor costs have remained relatively flat due to turnover and reclassification of employees.
- The Other category reduced by a net amount of $145,260, which is mainly due to a projected decrease in the CRB's budget over the next two fiscal years.

COLORADO RIVER PROGRAM BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 1,530,444	$ 1,440,639	$ 1,536,810	$ 6,365	-	$ 96,170	7%
Benefits	741,621	687,426	759,152	17,532	2%	71,727	10%
Labor & Benefits Total	**$ 2,272,065**	**$ 2,128,065**	**$ 2,295,962**	**$ 23,897**	**1%**	**$ 167,897**	**8%**
Direct Charges to CIP/Grants	(443,979)	(303,600)	(449,376)	(5,397)	-	(145,775)	-7%
Operating Labor & Benefits	**$ 1,828,086**	**$ 1,824,465**	**$ 1,846,586**	**$ 18,500**	**1%**	**$ 22,122**	**1%**
Services	937,050	935,224	939,250	2,200	-	4,026	-
Supplies	15,750	13,418	11,550	(4,200)	-27%	(1,868)	-14%
Utilities	2,700	1,691	1,700	(1,000)	-37%	9	1%
Insurance	-	-	-	-	-	-	-
Lease/Rents	42,000	36,367	42,000	-	-	5,633	15%
Other	696,020	510,111	550,760	(145,260)	-21%	40,649	8%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 1,693,520**	**$ 1,496,811**	**$ 1,545,260**	**$ (148,260)**	**-9%**	**$ 48,449**	**3%**
Total	**$ 3,521,606**	**$ 3,321,275**	**$ 3,391,846**	**$ (129,760)**	**-4%**	**$ 70,571**	**2%**
Capitalized Overhead	-	-	-	-	-	-	-
GRAND TOTAL	**$ 3,521,606**	**$ 3,321,275**	**$ 3,391,846**	**$ (129,760)**	**-4%**	**$ 70,571**	**2%**

COLORADO RIVER PROGRAM BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Colorado River Program	$ 2,974,696	$ 2,801,242	$ 2,845,445	$ (129,251)	-4%	$ 44,203	2%
Imperial Valley Outreach Program	546,910	520,034	546,402	(509)	-	26,368	5%
TOTAL COLORADO RIVER PROGRAM	**$ 3,521,606**	**$ 3,321,275**	**$ 3,391,846**	**$ (129,760)**	**-4%**	**$ 70,571**	**2%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	0.75	0.75	0.75	0.75	0.75	0.75
Assistant Water Resources Specialist [1]	0.00	0.00	1.00	1.00	0.00	0.00
Director of the Colorado River Program	1.00	1.00	1.00	1.00	1.00	1.00
Engineer (P.E.)	1.00	1.00	1.00	1.00	1.00	1.00
Principal Water Resources Specialist [2]	0.00	0.00	0.00	0.00	1.00	1.00
QSA Outreach Coordinator	1.00	1.00	1.00	1.00	1.00	1.00
Senior Water Resources Specialist [2]	1.00	1.00	1.00	1.00	0.00	0.00
Water Resources Specialist [1]	1.00	1.00	0.00	0.00	1.00	1.00
TOTAL	**5.75**	**5.75**	**5.75**	**5.75**	**5.75**	**5.75**

1. Assistant Water Resources Specialist reclassified to Water Resources Specialist through the Flexible Staffing Program in Fiscal Year 2019.
2. Senior Water Resources Specialist reclassified to Principal Water Resources Specialist in Fiscal Year 2019.

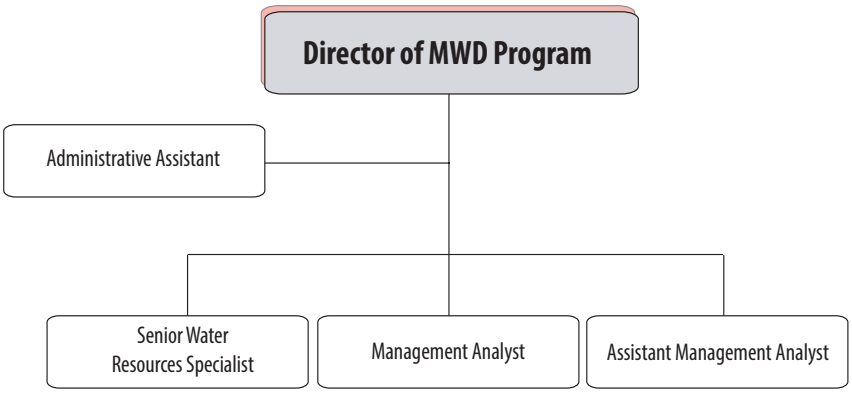
This page intentionally left blank

MWD Program

OVERVIEW

The Water Authority's Metropolitan Water District Program (MWD Program) is responsible for developing and implementing strategies to achieve the Water Authority's long-term supply reliability goal from Metropolitan Water District, including ensuring its financial sustainability. The MWD Program also serves as a liaison with water agencies throughout the MWD service area, state and federal officials, non-governmental organizations, and other stakeholders to promote and advance the Water Authority's positions on issues impacting MWD supply reliability, water quality, and costs. The MWD Program supports the Water Authority's Delegates to MWD, and coordinates and integrates internal departments' MWD-related activities to ensure alignment with the Water Authority's MWD-focused objectives.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Supported the Water Authority Board leadership's efforts to achieve a negotiated settlement over MWD's rate litigation.
- Provided reports to the Board of Directors on key MWD programs and policies related to water supply reliability, water quality, and MWD's long-term fiscal sustainability, including:
  - Long-term resources planning (such as Evaluation of Regional Storage Portfolio).
  - California WaterFix or other Bay-Delta fix alternatives and how MWD allocates project costs to its rates and charges may impact the Water Authority's ratepayers.
  - Conservation and subsidy programs (such as its Local Resources Program).
  - Budget, rates and charges.
- Executed and supported MWD Delegates on 11 MWD-sponsored, Water Authority-hosted inspection trips, providing business and community leaders with knowledge of imported water operations and supplies.
- Supported the Water Authority Delegates at MWD including in their roles as Board Vice Chair and Chairs of the Engineering and Operations Committee and Real Property and Asset Management Committee.
- Engaged in outreach efforts to educate stakeholders on Water Authority positions.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The MWD Program's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $4.0 million, a $310,388, or 7% decrease compared to the previous two-year budget. The primary drivers of this change are service-related expenses.

Initiatives

- Support the Water Authority's continued effort to reach a negotiated settlement with MWD (Business Plan Objective No. 1 under Water Supply: Imported Water).
- Support the Water Authority's MWD Delegates engagement in the review of MWD's Ethics Office and other key policies and programs to promote transparency and equity at MWD (Business Plan Objective Nos. 4 and 10 under Water Supply: Imported Water).
- Review and provide guidance on strategies to address Bay-Delta and State Water Project activities impacting supply reliability, water quality, and cost to San Diego water ratepayers (Business Plan Objective Nos. 5 and 10 under Water Supply: Imported Water).
- Develop advocacy positions and engage in efforts to ensure MWD's long-term reliability and financial sustainability as an imported water supplier while safeguarding the San Diego region's equitable share of MWD supplies and program funding (Business Plan Objective Nos. 10 and 11 under Water Supply: Imported Water).

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits. The department's overall benefits decreased due to staffing changes and benefits elections within the department.
- Overall, the Services category decreased by $364,066 due to re-prioritizing and cost containment efforts.
- The leases and rents category increased by $22,025. In Fiscal Year 2019, the MWD Program's Los Angeles team moved into a new office, the rent for which will be recurring in the next two-year budget. There is a corresponding slight increase in the Utilities category to cover costs related to the Los Angeles Office network connection.
- There is an increase in other planned expenditures of $52,970, including new staff opportunities for outreach and advocacy.

MWD PROGRAM BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 1,293,531	$ 1,234,098	$ 1,300,153	$ 6,621	1%	$ 66,054	5%
Benefits	654,609	560,690	620,070	(34,539)	-5%	59,380	11%
Labor & Benefits Total	**$ 1,948,140**	**$ 1,794,788**	**$ 1,920,223**	**$ (27,917)**	**-1%**	**$ 125,434**	**7%**
Direct Charges to CIP/Grants	-	-	-	-	-	-	-
Operating Labor & Benefits	**$ 1,948,140**	**$ 1,794,788**	**$ 1,920,223**	**$ (27,917)**	**-1%**	**$ 125,434**	**7%**
Services	2,021,545	2,085,926	1,657,479	(364,066)	-18%	(428,447)	-21%
Supplies	8,400	13,495	9,600	1,200	14%	(3,895)	-29%
Utilities	17,200	17,200	22,600	5,400	31%	5,400	31%
Insurance	-	-	-	-	-	-	-
Lease/Rents	31,991	30,968	54,016	22,025	69%	23,048	74%
Other	259,715	251,274	312,685	52,970	20%	61,411	24%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 2,338,851**	**$ 2,398,863**	**$ 2,056,380**	**$ (282,471)**	**-12%**	**$ (342,483)**	**-14%**
Total	**$ 4,286,991**	**$ 4,193,651**	**$ 3,976,603**	**$ (310,388)**	**-7%**	**$ (217,048)**	**-5%**
Capitalized Overhead	-	-	-	-	-	-	-
GRAND TOTAL	**$ 4,286,991**	**$ 4,193,651**	**$ 3,976,603**	**$ (310,388)**	**-7%**	**$ (217,048)**	**-5%**

Personnel Requirements

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	0.25	0.25	0.25	0.25	0.25	0.25
Assistant General Manager	0.50	0.50	0.50	0.50	0.50	0.50
Assistant Management Analyst	0.00	0.00	1.00	1.00	1.00	1.00
Assistant Water Resources Specialist	1.00	1.00	0.00	0.00	0.00	0.00
Director of MWD Program	1.00	1.00	1.00	1.00	1.00	1.00
Management Analyst [1]	0.00	0.00	0.00	0.00	1.00	1.00
Public Affairs Manager [2]	0.20	0.20	0.20	0.20	0.00	0.00
Senior Water Resources Specialist	1.00	1.00	1.00	1.00	1.00	1.00
Water Resources Specialist [1]	1.00	1.00	1.00	1.00	0.00	0.00
Total	**4.95**	**4.95**	**4.95**	**4.95**	**4.75**	**4.75**

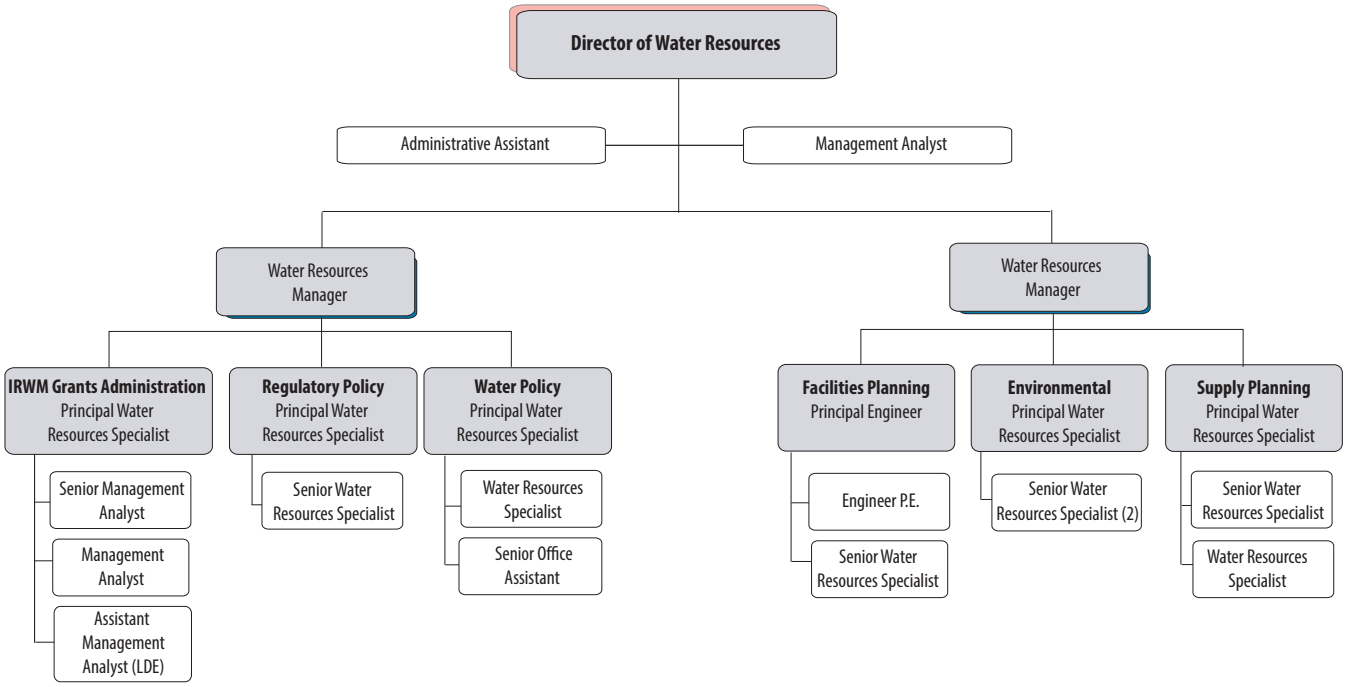
1. Water Resources Specialist reclassified to Management Analyst in Fiscal Year 2019.
2. Public Affairs Manager 0.20 FTE transferred to Public Outreach and Communication in Fiscal Year 2019.

Water Resources Department

OVERVIEW

The Water Resources Department is responsible for long-range water resources and facilities planning. The department prepares the Water Authority's Urban Water Management Plan, Regional Water Facilities Optimization and Master Plan, and Water Shortage Contingency Plan; administers the Claude "Bud" Lewis Carlsbad Desalination Plant Water Purchase Agreement; provides assistance to member agencies in local supply development; manages the Integrated Regional Water Management (IRWM) Program, including grants administration and IRWM Plan preparation; administers the Sub-regional Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP); and ensures environmental and regulatory compliance for Water Authority programs and projects. In addition, the department develops, reviews, and advocates for policies, regulations, and legislation related to water supply, water quality, recycled water and potable reuse, integrated planning, greenhouse gas emissions, and shortage contingency planning to ensure that they are fair and equitable to the Water Authority and its member agencies.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Initiated development of a new water billing system and water resources database to enhance functionality and ensure software compatibility.
- Updated the Water Shortage Contingency Plan to reflect lessons learned from previous shortage periods.
- Initiated region's Long-Term Water Demand Forecast for the 2020 Urban Water Management Plan.
- Secured the second of the San Diego IRWM Program's anticipated four grants from the California Department of Water Resources (DWR) Proposition 1 IRWM grant program, a $5.5 million grant to support the involvement of disadvantaged communities in IRWM.
- Successfully advocated for policies and legislation favorable to the Water Authority, including policies related to the State's implementation of the long-term water conservation framework.
- Completed Water Purchase Agreement supplement for the Carlsbad Desalination Intake Modifications Project, utilizing a phased implementation approach.
- Obtained new National Pollutant Discharge Elimination System permit from the San Diego Water Quality Control Board supporting a phased implementation of new intake and discharge facilities for the Lewis Carlsbad Desalination Plant to achieve stand-alone operations.
- Developed a white paper on permitting treatment plant residual discharges.
- Successfully administered the Local Water Supply Development Program and facilitated submittal of member agency applications to MWD's Local Resources Program.
- Finalized Mitigated Negative Declaration for the Second Aqueduct Moosa Canyon Crossing Erosion Control Project and San Luis Rey Habitat Management Area Restoration Project.
- Successfully satisfied Emergency Storage Project's wetlands permit obligations for permits issued by the U.S. Army Corps of Engineers and California Department of Fish and Wildlife.
- Successfully satisfied Carryover Storage and San Vicente Dam Raise Project's wetland permit obligations for permits issued by U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board, and California Department of Fish and Wildlife.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Water Resources Department's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $8.7 million, a $582,087, or 7% increase compared to the previous two-year budget. The primary drivers of this increase are personnel-related expenses and professional services to support the below initiatives, including some that are state-mandated.

Initiatives

- Update Water Conservation Tracking Tool to assist with preparation of the 2020 Urban Water Management Plan (Business Objective No. 8 under Water Supply – Resource Planning).
- Prepare 2020 Urban Water Management Plan (Business Objective No. 8 under Water Supply – Resource Planning).
- Prepare updated Water Shortage Contingency Plan (Business Objective No. 6 under Water Supply – Resource Planning).
- Complete the San Diego IRWM Plan Update (Business Objective No. 3 under Water Supply – Resource Planning).
- Apply for Proposition 1 implementation grant to support development of projects that will help realize the goals established in the San Diego IRWM Plan and the Water Authority's Urban Water Management Plan (Business Objective No. 5 under Water Supply – Resource Planning).
- Update Water Authority's Climate Action Plan (Business Objective Nos. 1 and 3 under Water Facilities – Sustainability).
- Complete the new water billing and water resources database project (Business Objective No. 6 under Business Services - Financial Management).
- Complete Water Purchase Agreement Contract Administration Memoranda and facility improvements, in collaboration with Poseidon Water, to support interim and permanent operations and achieve stand-alone operations for the Lewis Carlsbad Desalination Plant.
- Coordinate with member agencies and the Water Research Foundation to evaluate the benefits of the Carlsbad Desalination Plant supply and new local supplies (Business Objective No. 7 under Water Supply – Local Water).
- Complete an environmental awareness training video on the California Environmental Quality Act and current environmental permitting requirements for to be used for new hires and a refresher for existing staff (Business Objective No. 2 under Water Facilities – Sustainability).

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.

- The Services category budget increased by $228,781, or 17%, from the previous two-year budget. This increase is mainly due to professional services support needed for initiatives mentioned above. Some of the initiatives include preparation of state-mandated planning documents, such as the 2020 Urban Water Management Plan and the Climate Action Plan.
- There is a slight decrease in the Supplies category by approximately $3,000, or 15%. In Fiscal Years 2018 and 2019, the department had one-time expenses that will not be recurring in the next two-year budget.
- The Other category is up by $31,811, or 15%, due to increase in one existing membership (Water Utility Climate Alliance (WUCA)) dues and an addition of one new membership (Climate Registry).

WATER RESOURCES BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 5,687,588	$ 5,592,515	$ 5,911,891	$ 224,303	4%	$ 319,376	6%
Benefits	2,872,401	2,522,177	2,939,068	66,667	2%	416,892	17%
Labor & Benefits Total	**$ 8,559,988**	**$ 8,114,692**	**$ 8,850,959**	**$ 290,971**	**3%**	**$ 736,267**	**9%**
Direct Charges to CIP/Grants	(2,036,666)	(1,849,311)	(2,004,008)	32,658	-2%	(154,697)	8%-
Operating Labor & Benefits	**$ 6,523,321**	**$ 6,265,381**	**$ 6,846,951**	**$ 323,630**	**5%**	**$ 581,570**	**9%**
Services	1,340,772	1,102,658	1,569,553	228,781	17%	466,895	42%
Supplies	17,985	16,687	15,200	(2,785)	-15%	(1,487)	-9%
Utilities	750	706	1,400	650	87%	694	98%
Insurance	-	-	-	-	-	-	-
Lease/Rents	-	-	-	-	-	-	-
Other	209,748	195,326	241,559	31,811	15%	46,233	24%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 1,569,255**	**$ 1,315,377**	**$ 1,827,712**	**$ 258,457**	**16%**	**$ 512,335**	**39%**
Total	**$ 8,092,576**	**$ 7,580,758**	**$ 8,674,663**	**$ 582,087**	**7%**	**$ 1,093,905**	**14%**
Capitalized Overhead	-	-	-	-	-	-	-
GRAND TOTAL	**$ 8,092,576**	**$ 7,580,758**	**$ 8,674,663**	**$ 582,087**	**7%**	**$ 1,093,905**	**14%**

WATER RESOURCES BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
IRWM Grants Administration	$ 845,640	$ 794,963	$ 697,311	$ (148,330)	-18%	$ (97,652)	-12%
Environmental and Facilities Planning	1,489,144	1,272,960	1,676,434	187,290	13%	403,474	32%
Supply Planning	3,964,910	3,881,741	4,470,477	505,567	134%	588,736	15%
Regulatory Policy & Planning	1,792,882	1,631,094	1,830,441	37,559	2%	199,347	12%
TOTAL WATER RESOURCES	**$ 8,092,576**	**$ 7,580,758**	**$ 8,674,663**	**$ 582,087**	**7%**	**$ 1,093,905**	**14%**

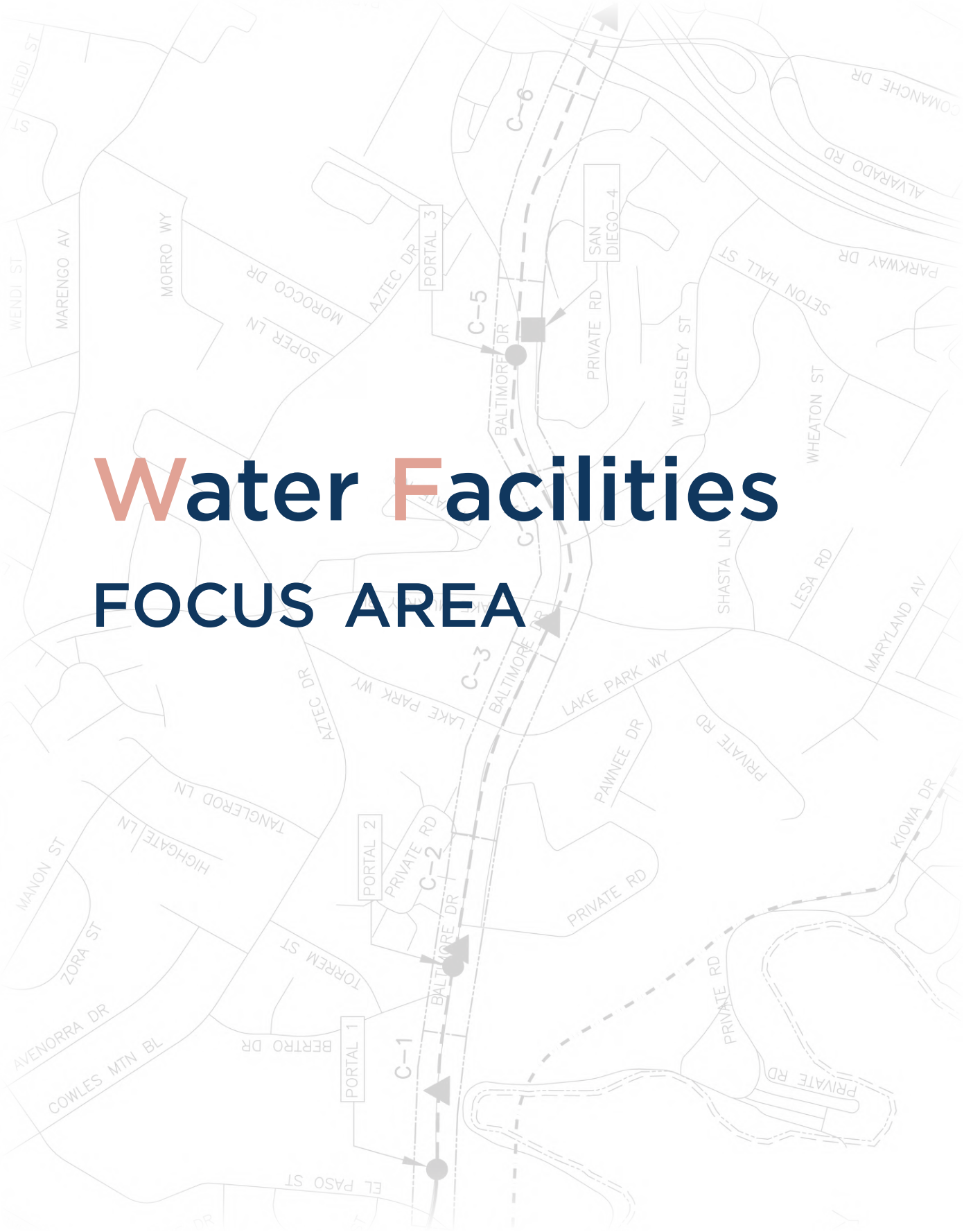
PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Director of Water Resources	1.00	1.00	1.00	1.00	1.00	1.00
Engineer II [1]	0.00	0.00	1.00	1.00	0.00	0.00
Engineer (P.E.) [1]	1.00	1.00	0.00	0.00	1.00	1.00
Management Analyst	1.00	1.00	2.00	2.00	2.00	2.00
Principal Engineer	0.00	0.00	1.00	1.00	1.00	1.00
Principal Water Resources Specialist	4.00	4.00	5.00	5.00	5.00	5.00
Senior Engineer	1.00	1.00	0.00	0.00	0.00	0.00
Senior Management Analyst (Grants)	1.00	1.00	1.00	1.00	1.00	1.00
Senior Office Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Senior Water Resources Specialist	5.00	5.00	5.00	5.00	5.00	5.00
Water Resources Manager	3.00	3.00	2.00	2.00	2.00	2.00
Water Resources Specialist	2.00	2.00	2.00	2.00	2.00	2.00
TOTAL	**21.00**	**21.00**	**22.00**	**22.00**	**22.00**	**22.00**

Limited Duration Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Assistant Management Analyst (Grants)	0.00	0.00	0.00	0.00	1.00	1.00
Management Analyst (Grants)	1.00	1.00	1.00	1.00	0.00	0.00
TOTAL	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

1. Engineer II reclassified via the Flexible Staffing Program to Engineer (P.E.) in Fiscal Year 2019.

This page intentionally left blank



Water Facilities

FOCUS AREA

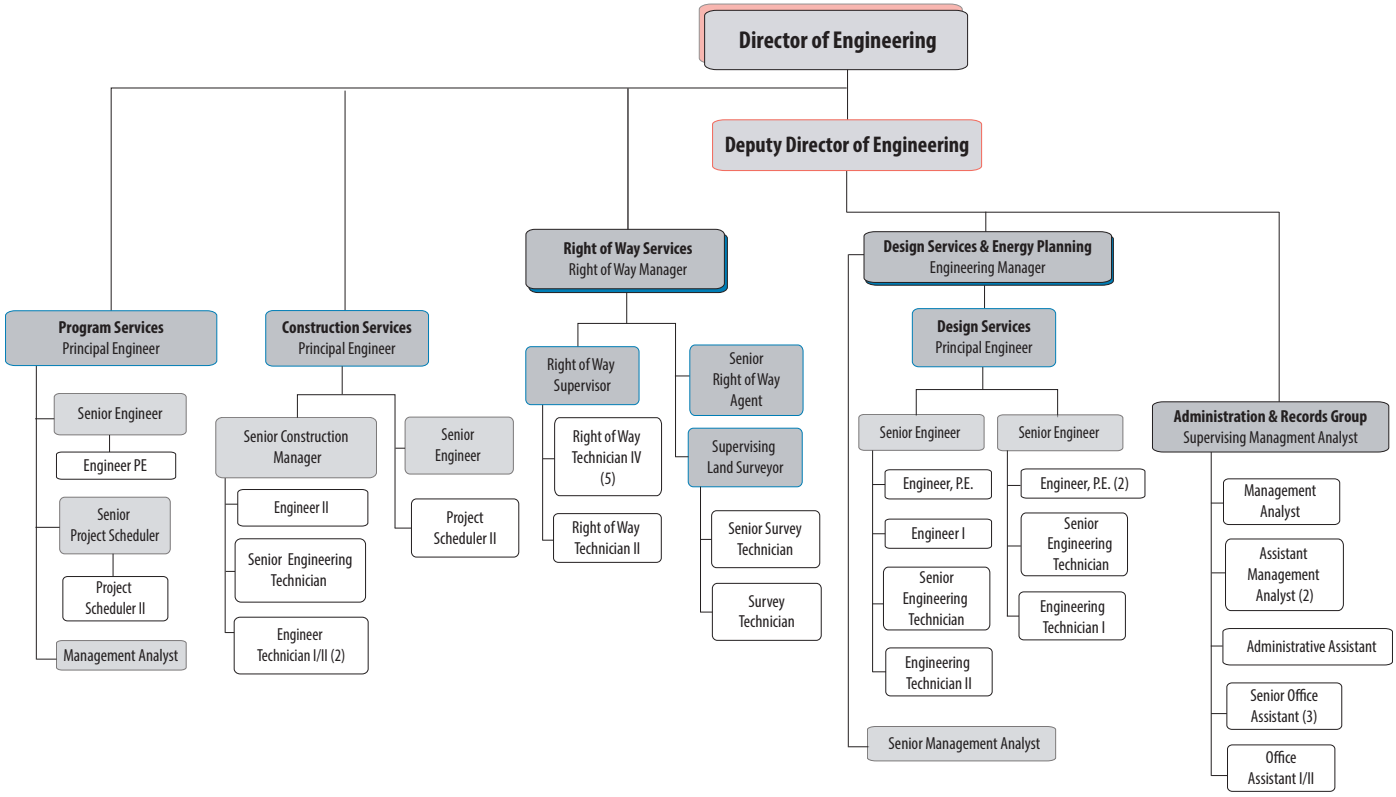
This page intentionally left blank

Engineering Department

OVERVIEW

The Engineering Department's primary focus areas include: managing and executing a cost effective and efficient Capital Improvement Program (CIP) which consists of projects identified and prioritized through the Water Authority's Master Planning Process and Asset Management Program; providing as-needed technical support to other departments; managing the Water Authority's Right of Way inclusive of survey, acquisition, disposal, and lease of real property, patrol and management of 168 miles of right of way; and overseeing agency-wide Energy Planning efforts inclusive of reviewing supply, transmission, regulatory, and operational energy-related issues with the goal to reduce costs of energy while meeting the agency's climate action plan objectives.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Selected for the 2018 "Outstanding Award" by the American Public Works Association – San Diego & Imperial Counties Chapter for the Miramar Pump Station Rehabilitation and Nob Hill Improvements projects.
- Awarded 2019 "Project Achievement Award" from the Construction Management Association of America and selected for the 2019 "Honor Award" by the American Public Works Association – San Diego & Imperial Counties Chapter for the Pipeline 3 Relining - Lake Murray to Sweetwater Reservoir project.
- Awarded the "Outstanding Project of the Year" in the Parks and Recreation category from the American Society of Civil Engineers for the San Vicente Marina Facilities project.
- Completed construction on the following projects:
  - Carlsbad 6 Flow Control Facility
  - Pipeline 3 Relining - Lake Murray to Sweetwater Reservoir
  - Moosa Canyon Erosion Control
  - Second Aqueduct Structures Coatings Rehabilitation
- Resolved five of the long-term encroachment cases, 51 new encroachments, and responded to an average of 275 Dig Alerts per month.
- Completed 100 right of way permits and agreements and performed technical reviews for both public agency and private development projects crossing our right of way.
- Removed 115 trees from pipeline right of ways.
- Leased new office space for the Metropolitan Water District Program in Los Angeles.
- Initiated Phase II of the drone pilot study by utilizing drones to monitor inaccessible areas of the aqueduct right of way and in support of CIP projects.
- Successfully negotiated a term sheet with a private developer for the San Vicente Energy Storage Facility Study.
- Secured a new four-year preliminary permit for the San Vicente Energy Storage Facility Study from the Federal Energy Regulatory Commission.
- Secured a business arrangement to generate $300,000 in annual revenue from the sale of Renewable Energy Credits from the Rancho Peñasquitos Inline Hydroelectric Facility.
- Completed the design of the proposed 1.4 Megawatt Alvarado Inline Hydroelectric Facility, which will generate clean energy.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Engineering Department's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $7.7 million, a $81,504, or a 1% increase compared to the previous two-year budget. The increase is primarily due to additional professional and legal services required to support Energy Planning section initiatives.

Initiatives

Utilize industry Best Management Practices such as use of innovative program management tools to efficiently and effectively manage and execute CIP projects in various stages of planning, design, and construction, some of which are listed below:

- Coordinate with member agencies to begin construction of the ESP-North County Pump Station project (Business Plan Objective No. 14 under Water Facilities: Infrastructure/CIP).
- Begin construction of the Mission Trails Flow Regulatory Structure (FRSII) project (Business Plan Objective No. 12 under Water Facilities: Infrastructure/CIP).
- Complete construction of the following projects:
  - Pipeline 5 Relining - Point of Delivery to Sage Road (Business Plan Objective No. 17 under Water Facilities: Infrastructure/CIP)
  - Vallecitos 11/Vista Irrigation District 12 Flow Control Facility (Business Plan Objective No. 3 under Water Facilities: Infrastructure/CIP)
  - San Diego 28 Flow Control Facility project (Business Plan Objective No. 5 under Water Facilities: Infrastructure/CIP)
  - First Aqueduct Structures & Lining Rehabilitation – Hubbard Hill North (Business Plan Objective No. 10 under Water Facilities: Infrastructure/CIP)
- Complete design and begin construction of the following projects:
  - Hauck Mesa Storage Reservoir (Business Plan Objective No. 9 under Water Facilities: Infrastructure/CIP)
  - Alvarado Hydroelectric Facility Rehabilitation
- Begin the Pipeline Seismic System Vulnerability Assessment and Repair Time Estimates project (Business Plan Objective No.13 under Water Facilities: Infrastructure/CIP).
- Resolve six of the existing long-term major encroachment cases and resolve any new encroachments.
- Meet State of California, statutory legal requirements for agencies to respond to area wide construction Dig Alerts.
- Work with private and public entities to protect our easement rights as development occurs and as properties are sold to new owners.

- Complete Phase II of the drone pilot study to explore long term use of drones on Capital Improvement Program projects and monitoring inaccessible portions of the aqueduct right of way (Business Plan Objective No.4 under Water Facilities: Infrastructure/CIP).
- Focus on San Vicente Energy Storage Facility Study strategic legislative and regulatory planning and preparation of the project development agreement (Business Plan Objective No.4 under Water Facilities: Water System Management).
- Engage in State and Federal energy regulatory proceedings to move bulk storage forward in California (Business Plan Objective No. 12 under Water Facilities: Water System Management).
- Reduce energy costs at the Claude "Bud" Lewis Carlsbad Desalination Plant (Business Plan Objective No. 1 under Water Facilities: Water System Management).
- Obtain Board approval of updates to the 2013 Energy Management Policy (Business Plan Objective No. 2 under Water Facilities: Water System Management).
- Evaluate alternatives for tracking agency-wide energy costs (Business Plan Objective No. 10 under Water Facilities: Water System Management).

Budget Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.
- The department's overall benefits decreased due to staffing changes and benefits elections within the department.
- In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and address the changing needs of the workforce. Changes from the Classification Study are reflected in the department's adopted budget for Fiscal Years 2020 and 2021 and are shown in the Personnel Requirements table.
- In Fiscal Year 2018, Energy Planning was transferred from the General Manager and Board of Directors, along with an Energy Manager and Senior Management Analyst to align with organizational goals and priorities.
- With the addition of Energy Planning, the Engineering Department reorganized to increase the number of divisions from three to four and redeployed resources to better meet the needs of the organization.
- Energy Planning division resources will be shared between Energy Planning and Design Services.

- The Services budget is 22%, or $229,146, more than the previous two-year budget due to an increase in professional services for analysis of energy rates under the new laws, electrical system reliability risks, and a feasibility study for alternative power delivery infrastructure and legal services to support SDG&E coordination, Direct Access program, and legislative support.
- The Supplies budget is 21%, or $10,226, less than the previous two-year budget due to the purchase of the drones and maintenance contracts being replaced by warranties for the new survey equipment.
- The Insurance budget is 103%, or $4,474, higher than the previous two-year budget due to warranties for the new survey equipment.
- The Leases and Rents budget is 13%, or $2,532, less than the previous two-year budget due to meter charges for the plotter being less than anticipated.
- The Other budget is 19%, or $26,604, less than the previous two-year budget due to a reduction in the conference, travel, and training budgets.

ENGINEERING BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 11,232,389	$ 10,625,438	$ 11,421,094	$ 188,705	2%	$ 795,656	7%
Benefits	5,956,412	5,021,747	5,750,990	(205,422)	-3%	729,243	15%
Labor & Benefits Total	**$ 17,188,801**	**$ 15,647,185**	**$ 17,172,084**	**$ (16,717)**	**-**	**$ 1,524,899**	**10%**
Direct Charges to CIP/Grants	(10,782,484)	(9,739,300)	(10,877,561)	(95,077)	-2%	(1,138,260)	-3%
Operating Labor & Benefits	**$ 6,406,317**	**$ 5,907,885**	**$ 6,294,523**	**$ (111,794)**	**-2%**	**$ 386,639**	**7%**
Services	1,025,999	1,003,093	1,255,145	229,146	22%	252,052	25%
Supplies	48,326	43,951	38,100	(10,226)	-21%	(5,851)	-13%
Utilities	8,640	8,024	7,680	(960)	-11%	(344)	-4%
Insurance	4,350	3,019	8,824	4,474	103%	5,806	192%
Lease/Rents	18,996	15,364	16,464	(2,532)	-13%	1,100	7%
Other	143,684	124,088	117,080	(26,604)	-19%	(7,008)	-6%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 1,249,995**	**$ 1,197,538**	**$ 1,443,293**	**$ 193,298**	**15%**	**$ 245,755**	**21%**
Total	**$ 7,656,312**	**$ 7,105,423**	**$ 7,737,816**	**$ 81,504**	**1%**	**$ 632,393**	**9%**
Capitalized Overhead	-	-	-	-	-	-	-
GRAND TOTAL	**$ 7,656,312**	**$ 7,105,423**	**$ 7,737,816**	**$ 81,504**	**1%**	**$ 632,393**	**9%**

ENGINEERING BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Admin & Records Group	$ 1,429,342	$ 1,366,475	$ 1,061,708	$ (367,634)	-26%	$ (304,766)	-22%
Engineering Services	1,399,843	1,300,316	1,120,515	(279,328)	-20%	(179,800)	-14%
Energy Planning	554,458	363,687	1,119,077	564,618	102%	755,390	208%
Right of Way Services	4,272,669	4,074,946	4,436,516	163,848	4%	361,570	9%
TOTAL ENGINEERING	**$ 7,656,312**	**$ 7,105,423**	**$ 7,737,816**	**$ 81,504**	**1%**	**$ 632,393**	**9%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Assistant Management Analyst	1.00	1.00	2.00	2.00	2.00	2.00
Construction Manager	1.00	1.00	1.00	1.00	0.00	0.00
Deputy Director of Engineering [3]	0.00	0.00	0.00	0.00	1.00	1.00
Director of Engineering	1.00	1.00	1.00	1.00	1.00	1.00
Engineer I	0.00	0.00	1.00	1.00	1.00	1.00
Engineer II [2]	0.00	0.00	2.00	2.00	1.00	1.00
Engineer (P.E.)	6.00	6.00	4.00	4.00	4.00	4.00
Engineering Manager [1]	2.00	2.00	0.00	0.00	1.00	1.00
Engineering Technician I	0.00	0.00	1.00	1.00	1.00	1.00
Engineering Technician II	1.00	1.00	1.00	1.00	3.00	3.00
Management Analyst	2.00	2.00	2.00	2.00	2.00	2.00
Office Assistant I	1.00	1.00	1.00	1.00	1.00	1.00
Principal Engineer	2.00	2.00	3.00	3.00	3.00	3.00
Project Scheduler II	2.00	2.00	2.00	2.00	2.00	2.00
Right of Way Manager	1.00	1.00	1.00	1.00	1.00	1.00
Right of Way Supervisor	1.00	1.00	1.00	1.00	1.00	1.00
Right of Way Tech Level I, II, III, IV	6.00	6.00	6.00	6.00	6.00	6.00
Senior Construction Manager	1.00	1.00	0.00	0.00	1.00	1.00
Senior Engineer	4.00	4.00	4.00	4.00	4.00	4.00
Seniro Engineering Manager[3]	0.00	0.00	1.00	1.00	0.00	0.00
Senior Engineering Technician	4.00	4.00	5.00	5.00	3.00	3.00
Senior Management Analyst [1]	1.00	1.00	0.00	0.00	1.00	1.00
Senior Office Assistant	3.00	3.00	3.00	3.00	3.00	3.00
Senior Project Scheduler	1.00	1.00	1.00	1.00	1.00	1.00
Senior Right of Way Agent	2.00	2.00	1.00	1.00	1.00	1.00
Senior Survey Technician	1.00	1.00	1.00	1.00	1.00	1.00
Supervising Engineering Technician	1.00	1.00	0.00	0.00	0.00	0.00
Supervising Land Surveyor	1.00	1.00	1.00	1.00	1.00	1.00
Supervising Management Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Survey Technician	1.00	1.00	1.00	1.00	1.00	1.00
TOTAL	**49.00**	**49.00**	**49.00**	**49.00**	**50.00**	**50.00**

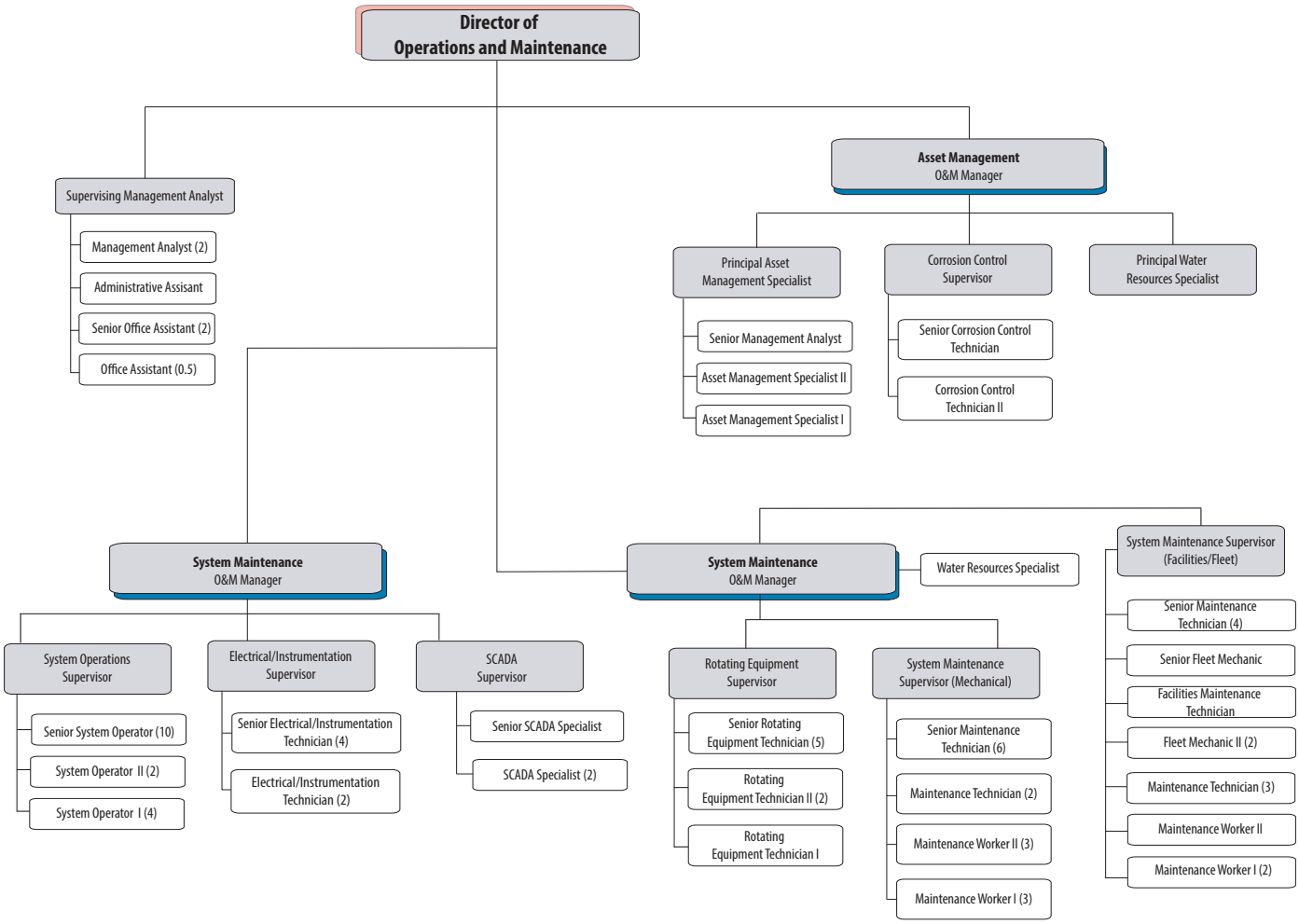
1. One Engineering Manager (formerly Energy Manager) and one Senior Management Analyst were transferred to Engineering from General Manager and Board of Directors in Fiscal Year 2018.
2. One Engineer II position was transferred to Operations & Maintenance in Fiscal Year 2019.
3. Senior Engineering Manager reclassified to Deputy Director of Engineering as part of the Fiscal Year 2019 Classification Study.

Operations and Maintenance Department

OVERVIEW

The Operations and Maintenance Department is responsible for the Water Authority's Operations and Maintenance, Asset Management, and Facilities Security and Emergency Preparedness Programs. This includes: controlling water deliveries to meet member agency demands; managing dam and reservoir operations; performing pump station and power generation operations and maintenance; overseeing water treatment plant operations; ensuring water quality and complying with all applicable environmental regulations; performing preventative and corrective maintenance on the Water Authority's aqueduct system, fleet, facilities, and right of way; managing computerized controls equipment; monitoring and maintaining infrastructure assets through the Asset Management Program; and supporting enhanced emergency preparedness and cybersecurity through local, state and federal projects and partnerships.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Maintained 100% uptime for the Aqueduct Delivery System, with no unplanned shutdowns or outages.
- Managed Supervisory Control and Data Acquisition (SCADA) communication system performance to realize a two-year average uptime exceeding 99.5%.
- Successfully transitioned from contractor to internal staff operations and maintenance of the Hodges Pumped Storage Facility.
- Enhanced operational reliability and system security by increasing control room staffing to two operators per shift.
- Exceeded 97% average availability for power generation at the Hodges Pumped Storage Facility and exceeded hydro-power revenue goals.
- Completed several physical security assessments and improvements in our aqueduct system and facilities.
- Replaced 100 actuators to improve operational reliability.
- Completed 20 Capital Improvement Program (CIP) shutdowns and four operating shutdowns to integrate new system components and perform programmed maintenance and inspections.
- Safely and efficiently completed planned and corrective maintenance on aqueduct delivery systems and facilities, properties/rights-of-way, and fleet.
- Developed in-house tools and equipment to perform maintenance and conduct safer and more efficient condition assessments, such as underwater inspection camera tools, a laser pipe diameter measuring device, and pipe inspection vehicles.
- Relined seven miles of pipe, completed five rehabilitation projects and five miles of condition assessments.
- Developed streamlined emergency management tools including presentations, training materials, and information sharing platforms for staff and member agency partners.
- Completed the Escondido Facility Space Needs Assessment Study to identify the O&M Department's current and future space needs.
- Completed a cybersecurity evaluation, identifying recommended organizational changes to enhance and focus the necessary resources for the management and cybersecurity of the SCADA system.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Operations and Maintenance Department's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $41.7 million. This is a $2.9 million, or 7%, increase over the previous two-year budget. This increase is attributed primarily to the addition of maintenance cost sharing for Lake Hodges and San Vicente Reservoir.

Initiatives

- Develop a major maintenance and replacement plan for the Hodges Pumped Storage Facility (Business Plan Objective No. 3 under Water Facilities: Water System Management).

- Complete installation and commissioning of the chlorine boosting facility at Mission Trails Flow Regulatory Structure to allow for enhanced water quality monitoring and conditioning. (Business Plan Objective No. 6 under Water Facilities Water System Management).
- Complete an Escondido Facilities master plan, using the results of the Escondido Facility Space Needs Assessment Study completed in Fiscal Year 2019, for an efficient and secure operating facility. (Business Plan Objective No. 5 under Water Facilities: Water System Management).
- Implement physical security assessment recommendations for critical facilities. (Business Plan Objective No. 7 under Water Facilities: Water System Management).
- Develop a communication system master plan for the Water Authority's Aqueduct Control System. (Business Plan Objective No. 9 under Water Facilities: Water System Management).
- Complete evaluation of innovative tools and technology for robotic pipeline inspections, which reduce water discharge, labor costs, and risk of pipeline failures. (Business Plan Objective No. 2 under Water Facilities: Infrastructure/CIP).
- Determine the number of Member Agencies interested in a Member Agency Asset Management Support Network. Draft a plan to develop the network and formalize the procedures, if interest is sufficient. (Business Plan Objective No. 7 under Water Facilities: Infrastructure/CIP).

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.
- In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and address the changing needs of the workforce. Changes from the Classification Study are reflected in the department's adopted budget for Fiscal Years 2020 and 2021 and are shown in the Personnel Requirements table.
- In Fiscal Year 2019 a vacant Operations and Maintenance Manager position was transferred to the Administrative Services Department and one Engineering Technician II was transferred from the Engineering Department.
- An Operations Technology division has been created, carving out the SCADA management function from the Technical Services division. This highlights the specialized skill required to manage complex data and communication systems that control the flow of water and puts a focus on cyber-security.

- The Asset Management division will be reorganized into two functional groups, Asset Management and Corrosion Control, with supervisors who report to the O&M Manager (see organization chart). The department proposes to create a position for an Asset Management Specialist and discontinue consultant services related to this work. The adjustment would save money and better meet the upcoming needs of the program.
- Budget proposed for the Water Authority's estimated cost share of O&M and capital modification costs at shared facilities has increased by $3.2 million ($1.7 million at San Vicente Reservoir, $1.0 million at Lake Hodges, and $0.5 million at Levy Water Treatment Plant).

OPERATIONS AND MAINTENANCE BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 17,587,974	$ 18,412,215	$ 18,308,398	$ 720,424	4%	$ (103,816)	-1%
Benefits	8,970,102	8,330,445	9,247,084	276,982	3%	916,639	11%
Labor & Benefits Total	**$ 26,558,076**	**$ 26,742,659**	**$ 27,555,482**	**$ 997,406**	**4%**	**$ 812,823**	**3%**
Direct Charges to CIP/Grants	(2,650,934)	(3,799,216)	(2,655,782)	(4,848)	-	1,143,434	6%
Operating Labor & Benefits	**$ 23,907,142**	**$ 22,943,443**	**$ 24,899,700**	**$ 992,558**	**4%**	**$ 1,956,257**	**9%**
Services	7,702,250	6,912,181	9,821,465	2,119,216	28%	2,909,284	42%
Supplies	2,992,453	2,873,710	2,818,426	(174,027)	-6%	(55,284)	-2%
Utilities	2,999,851	2,726,459	2,988,276	(11,575)	-	261,817	10%
Insurance	15,000	16,780	20,000	5,000	33%	3,220	19%
Lease/Rents	213,299	190,389	211,994	(1,305)	-1%	21,606	11%
Other	667,674	569,304	709,037	41,363	6%	139,733	25%
Fixed Assets	260,192	276,128	185,000	(75,192)	-29%	(91,128)	-33%
Non Personnel Total	**$ 14,850,719**	**$ 13,564,950**	**$ 16,754,199**	**$ 1,903,479**	**13%**	**$ 3,189,248**	**24%**
Total	38,757,861	36,508,393	41,653,899	2,896,038	7%	5,145,505	14%
Capitalized Overhead	-	-	-	-	-	-	-
GRAND TOTAL	**$ 38,757,861**	**$ 36,508,393**	**$ 41,653,899**	**$ 2,896,038**	**7%**	**$ 5,145,505**	**14%**

OPERATIONS AND MAINTENANCE BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
O&M Administration	$ 2,973,881	$ 2,807,993	$ 3,055,117	$ 81,236	3%	$ 247,125	9%
Energy Services	6,777,666	6,546,438	5,747,709	(1,029,957)	-15%	(798,729)	-12%
System Operations	6,033,583	6,205,913	6,683,679	650,096	11%	477,765	8%
Operations Technology	-	-	1,668,034	1,668,034	-	1,668,034	-
Technical Services	4,290,106	3,963,307	2,773,151	(1,516,955)	-35%	(1,190,156)	-30%
Mechanical Maintenance	4,746,591	4,501,147	4,583,650	(162,941)	-3%	82,503	2%
Facilities Maintenance	3,506,072	3,377,024	3,657,013	150,941	4%	279,989	8%
Rotating Equipment Maintenance	3,577,588	3,386,031	3,532,100	(45,487)	-1%	146,070	4%
Fleet Services	2,199,702	1,935,620	2,011,571	(188,130)	-9%	75,951	4%
Asset Management	4,652,672	3,784,920	7,941,874	3,289,202	71%	4,156,954	110%
TOTAL OPERATIONS & MAINTENANCE	**$ 38,757,861**	**$ 36,508,393**	**$ 41,653,899**	**$ 2,896,038**	**7%**	**$ 5,145,505**	**14%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Asset Management Specialist I	0.00	0.00	0.00	0.00	1.00	1.00
Asset Management Specialist II	0.00	0.00	0.00	0.00	1.00	1.00
Assistant Management Analyst	1.00	0.00	0.00	0.00	0.00	0.00
Corrosion Control Supervisor [4]	0.00	0.00	0.00	0.00	1.00	1.00
Corrosion Control Technician II [1]	0.00	0.00	0.00	0.00	1.00	1.00
Director of Operations & Maintenance	1.00	1.00	1.00	1.00	1.00	1.00
Electrical/Electronics Supervisor [2,3]	2.00	2.00	2.00	2.00	0.00	0.00
Electrical/Electronics Tech I [5]	2.00	2.00	2.00	2.00	0.00	0.00
Electrical/Electronics Tech II [5]	1.00	1.00	3.00	3.00	0.00	0.00
Electrical/Instrumentation Supervisor [2]	0.00	0.00	0.00	0.00	1.00	1.00
Electrical/Instrumentation Technician I [5]	0.00	0.00	0.00	0.00	2.00	2.00
Engineering Technician II [1]	1.00	1.00	1.00	1.00	0.00	0.00
Facilities Services Technician	0.00	1.00	1.00	1.00	1.00	1.00
Fleet Mechanic II	2.00	2.00	2.00	2.00	2.00	2.00
Maintenance Technician	9.00	9.00	4.00	4.00	5.00	5.00
Maintenance Worker I	1.00	1.00	7.00	7.00	4.00	4.00
Maintenance Worker II	6.00	6.00	5.00	5.00	5.00	5.00
Management Analyst	1.00	2.00	2.00	2.00	2.00	2.00
Network Administrator	0.00	0.00	1.00	1.00	0.00	0.00
Office Assistant I	0.50	0.50	0.50	0.50	0.50	0.50
Operations & Maintenance Manager	4.00	4.00	4.00	4.00	3.00	3.00
Principal Asset Management Specialist [6]	0.00	0.00	0.00	0.00	1.00	1.00
Principal Water Resources Specialist	1.00	1.00	1.00	1.00	1.00	1.00
Rotating Equipment Supervisor [3]	0.00	0.00	0.00	0.00	1.00	1.00
Rotating Equipment Technician I [5]	0.00	0.00	0.00	0.00	1.00	1.00
Rotating Equipment Technician II [5]	0.00	0.00	0.00	0.00	2.00	2.00
SCADA Specialist	0.00	0.00	0.00	0.00	2.00	2.00
SCADA Supervisor	0.00	0.00	0.00	0.00	1.00	1.00
Senior Corrosion Control Technician [4]	0.00	0.00	0.00	0.00	1.00	1.00
Senior Electrical/Electronics Technician [5]	9.00	9.00	8.00	8.00	0.00	0.00
Senior Electrical/Instrumentation Technician [5]	0.00	0.00	0.00	0.00	4.00	4.00
Senior Engineering Technician [4]	2.00	2.00	2.00	2.00	0.00	0.00
Senior Fleet Mechanic	0.00	0.00	0.00	0.00	1.00	1.00
Senior Maintenance Technician [5]	11.00	11.00	12.00	12.00	10.00	10.00
Senior Management Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Senior Office Assistant	2.00	2.00	2.00	2.00	2.00	2.00
Senior Rotating Equipment Technician [5]	0.00	0.00	0.00	0.00	5.00	5.00
Senior SCADA Specialist	0.00	0.00	0.00	0.00	1.00	1.00
Senior System Operator	9.00	9.00	8.00	8.00	10.00	10.00
Senior Water Resources Specialist [6]	1.00	1.00	1.00	1.00	0.00	0.00

Regular Status Employees cont.	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Supervising Management Analyst	1.00	1.00	1.00	1.00	1.00	1.00
System Maintenance Supervisor	2.00	2.00	2.00	2.00	2.00	2.00
System Operator I	1.00	1.00	4.00	4.00	4.00	4.00
System Operator II	3.00	3.00	4.00	4.00	2.00	2.00
Systems Operations Supervisor	1.00	1.00	1.00	1.00	1.00	1.00
Water Resources Specialist	2.00	2.00	2.00	2.00	1.00	1.00
TOTAL	**78.50**	**79.50**	**85.50**	**85.50**	**86.50**	**86.50**

1. Engineering Technician II reclassified to Corrosion Control Technician II as part of the Fiscal Year 2019 Classification Study..
2. One Electrical/Electronics Supervisor retitled to Electrical/Instrumentation Supervisor as part of the Fiscal Year 2019 Classification Study.
3. One Electrical/Electronics Supervisor reclassified to Rotating Equipment Supervisor as part of the Fiscal Year 2019 Classification Study.
4. Two Senior Engineering Technicians reclassified to one Senior Corrosion Control Technician and one Corrosion Control Supervisor as part of the Fiscal Year 2019 Classification Study.
5. Two Electrical/Electronics Technician I's, three Electrical/Electronics Technician II's, eight Senior Electrical/Electronics Technicians and one Senior Maintenance Technician reclassified to two Electrical/Instrumentation Technician I's, four Senior Electrical/Instrumentation Technicians, one Rotating Equipment Technician I, two Rotating Equipment Technician II's, and five Sr. Rotating Equipment Technicians as part of the Fiscal Year 2019 Classification Study.
6. Senior Water Resources Specialist reclassified to Principal Asset Management Specialist.

Business Services

FOCUS AREA

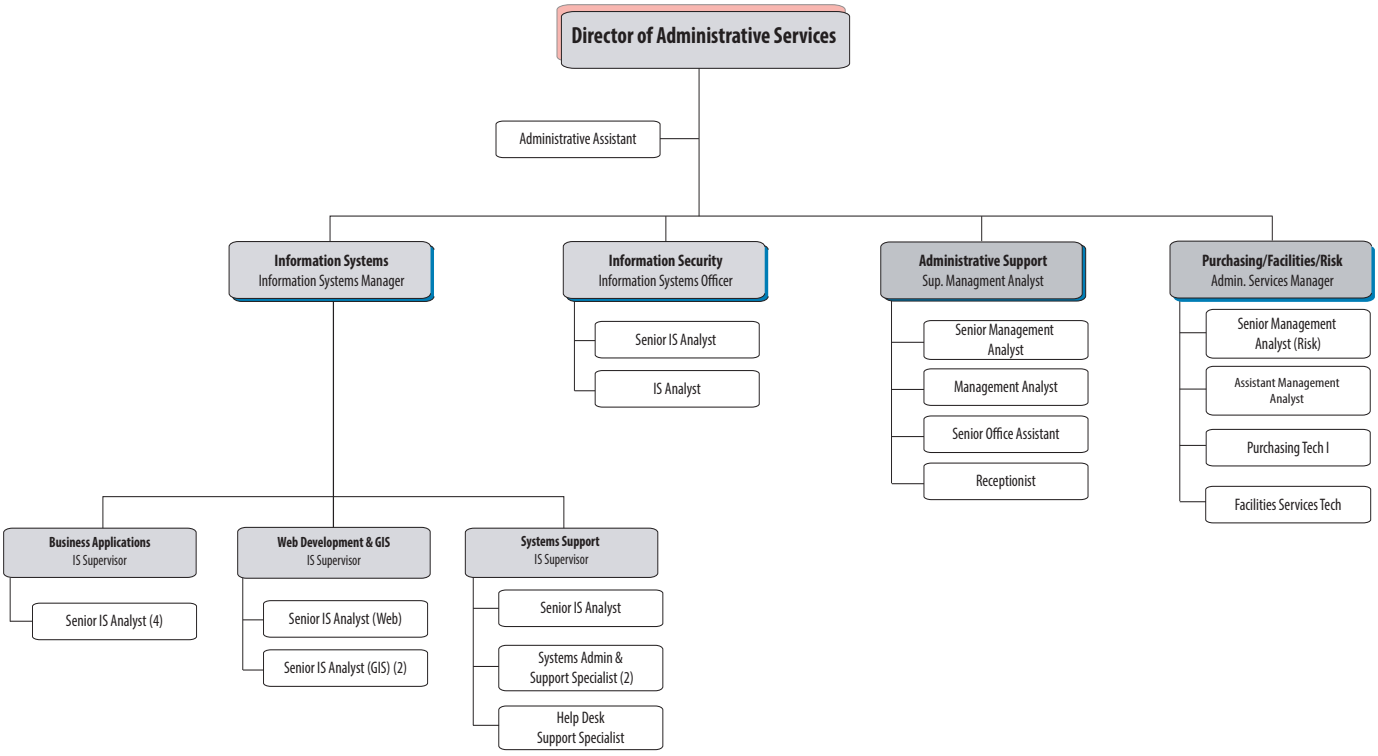
This page intentionally left blank

Administrative Services Department

OVERVIEW

The Administrative Services Department provides services that support the efficient operations of the Water Authority. It consists of four divisions: Administrative Support and Records, Information Systems, Kearny Mesa Facilities, and Purchasing and Risk. Responsibilities include administration of the records management program, management of the front desk reception, maintenance of critical computer software applications, maintenance and development of websites and online dashboards, acquisition and maintenance of computer hardware and cloud services, maintenance and development of Geographic Information Systems (GIS) datasets, audio and visual support for conference rooms and Board room, cybersecurity for the business network, facility management for the Kearny Mesa building and grounds, development of policies and procedures related to purchasing and regulatory compliance, procurement support for solicitation and contracts, and risk management, procurement, and administration of the Water Authority's business insurance (including claims management).

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

The Administrative Services Department continued to provide vital services to customer departments and achieve important milestones to improve business operations. Highlights include the installation of five state-of-the-art electric vehicle charging stations at the Kearny Mesa headquarters at no cost to the Water Authority (through a partnership with SDG&E) and completing a major headquarters roof rehabilitation project that will extend the roof's service life while reducing the energy needed to heat or cool the building. The department also carried out an information technology/cybersecurity resource deployment plan that allows staff to better coordinate and carry out measures to protect the Water Authority's business networks and data, while sustaining excellence in regular operations and maintenance of these systems. At the same time, the department also continued to optimize day-to-day operations through innovative technologies and methods to maintain the agility and adaptability of the agency. In addition, the Administrative Services Department:

- Implemented several key cybersecurity enhancements related to hardware, software, procedures, and training, including: the installation of new email and web security services; organization-wide roll-out of multi-factor authentication for Office 365; and procuring a managed security provider to enhance detection and response to security incidents on a 24/7 basis.
- Completed several projects to improve the sustainability of the headquarters building and grounds, including enhancements to the sustainable landscape demonstration garden, installation of energy-saving interior and exterior LED lighting, and application of energy-saving tinted window film.
- Updated the records retention schedule to ensure consistency with latest regulations and best practices.
- Implemented electronic signatures for several types of documents to help streamline workflows, reduce paper consumption and speed up processing.
- Completed the deployment of a Microsoft SharePoint content management system to enhance information sharing across the organization.
- Upgraded phone and voicemail system hardware and software.
- Completed the development of a web-based integrated reporting and analysis tool for the Capital Improvement Program.
- Upgraded building management software that operates heating and cooling systems.
- Negotiated a buyout of Phase I of the Water Authority's Owner Controlled Insurance Program for the Capital Improvement Program, transferring all remaining risk to the insurance carrier.
- Continued to maintain cost-effective business insurance coverage.
- Ensured compliance on all Water Authority procurements and contracts (while earning an Achievement of Excellence in Procurement Award from the National Procurement Institute).

- Provided progressive technical Information Technology (IT) training.
- Completed the acquisition of digital aerial imagery in coordination with public agencies in the region to support ongoing projects and operations.
- Implemented several measures to enhance the physical security of the Kearny Mesa building and grounds, including additional surveillance cameras and new camera hardware and software, additional access card readers, shatterproof tinted window film, and roll-out of a new ID/access card policy.
- Completed multiple business application upgrades in-house at significant savings, including upgrades for Human Resources, Finance, Purchasing, Asset Management, Engineering, budget planning and water standby charge applications and Oracle databases.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Administrative Services Department's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $13.2 million, an 11% increase over the previous two-year budget. The increase principally stems from several factors, including: Higher labor costs from forecasted increases in retirement contribution rates set by CalPERS and the transfer of a senior manager position (re-classified as the Information Security Officer) into the department during the current budget cycle; increases in expected insurance premiums over the next two years; full implementation of the Water Authority's cybersecurity programs; warranty costs for business network hardware; and necessary upgrades to agency-wide critical business software and Internet capabilities.

Initiatives

- Implement and maintain high-priority information security measures based on Center for Internet Security's CIS-20 security framework (Business Plan Objective No. 7 under Business Services: Business Support).
- Continue pilot of enhanced records management application to test auto-classification of new records and other functions (Business Plan Objective No. 1 under Business Services: Business Support).
- Complete development of mobile Maximo maintenance management system for Operations and Maintenance staff use in the field (Business Plan Objective No. 2 under Business Services: Business Support).
- Complete the implementation of physical and policy improvements to enhance the physical security of the Kearny Mesa headquarters that were identified in the 2018 security review (Business Plan Objective No. 3 under Business Services: Business Support).
- Assist in developing and deploying a new billing application and water resources data management system that is fully compatible with existing hardware, software, and operating systems.
- Identify and implement cost-effective measures that help achieve Kearny Mesa energy reduction goals (Business Plan Objective No. 6 under Business Services: Business Support).

- Complete projects that help maintain Kearny Mesa buildings and grounds assets and promote a productive working environment, including parking lot resurfacing, lunchroom ventilation, and vital HVAC maintenance.
- Migrate key shared drives to cloud-based platforms to maximize resilience against loss of service (Business Plan Objective No. 4 under Business Services: Business Support).
- Build canal-lining maintenance tracking database to help Colorado River Program manage asset management obligations under long-term water transfer agreements.
- Secure and install new data backup storage appliances that provide greater protection from cyber threats and other forms of data loss.
- Migrate information technology network services and data backup process to the cloud to gain operational efficiencies and enhance business continuity.
- Expand use of electronic signatures for additional types of key documents to achieve greater workflow efficiency.
- Provide and adapt business insurance policies to cost-effectively meet the needs of the Water Authority (Business Plan Objective No. 8 under Business Services: Business Support).
- Ensure compliance on all Water Authority procurements and contracts.
- Provide progressive technical IT training.

Budget Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.
- In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and address the changing needs of the workforce. Changes from the Classification Study are reflected in the department's adopted budget for Fiscal Years 2020 and 2021 and are shown in the Personnel Requirements table.
- In addition, the Administrative Services Department's labor budget is increasing as one position, a vacant Operations and Maintenance Manager, was transferred into Administrative Services and re-classified as the Information Security Officer in Fiscal Year 2019. This re-allocation of staff resources was planned for as part of the agency's Information Technology and Cybersecurity Resource Deployment Plan staff presented to the Board in July 2018. The plan was implemented to help the agency better coordinate and carry out measures to protect the Water Authority's business and operational networks and data, while sustaining excellence in regular operations and maintenance of these systems.

- The Services budget shows an increase of approximately $202,000, or 8%. This is the result of several factors, including implementation of new cybersecurity efforts (such as remote 24/7 monitoring and mobile device security) over a full budget cycle, an increase in the number of critical information systems hardware devices (computers, servers, switches, etc.) reaching the point of needing warranty coverage, and increases in the cost of Office 365 and related Microsoft software and services.
- The Supplies budget increased by approximately $20,000, or 7%, to expand the use of software that improves business efficiency, such as electronic document signatures and secure record classification.
- The Utilities budget increased by $71,000, or 27%, largely due to the need to provide faster and more resilient Internet capabilities to support cloud-based business applications.
- The Insurance budget shows an increase of $206,000, or 11%. The premiums for the Water Authority's package of property, liability, and workers' compensation coverage are expected to increase over the next two years. Insurance premium costs are based on market rates. Workers' compensation premiums are based on an experience modifier that includes past employee injuries and lost days of work. This budget also reflects a full two-year cost for a new requirement, pollution liability insurance.
- Leases and Rents increased by approximately $4,000, or 2%, which reflects incremental increases in renting equipment needed to conduct building maintenance.
- Other costs decrease by approximately $5,000, or 4%. This reflects switching to a less-expensive IT training services provider.

ADMINISTRATIVE SERVICES BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 6,465,880	$ 6,458,153	$ 7,169,452	$ 703,572	11%	$ 711,299	11%
Benefits	3,260,999	3,027,285	3,567,905	306,906	9%	540,620	18%
Labor & Benefits Total	**$ 9,726,879**	**$ 9,485,438**	**$ 10,737,357**	**$ 1,010,478**	**10%**	**$ 1,251,919**	**13%**
Direct Charges to CIP/Grants	-	-	-	-	-	-	-
Operating Labor & Benefits	**$ 9,726,879**	**$ 9,485,438**	**$ 10,737,357**	**$ 1,010,478**	**10%**	**$ 1,251,919**	**13%**
Services	2,398,112	2,399,184	2,600,305	202,193	8%	201,121	8%
Supplies	268,363	271,438	287,908	19,545	7%	16,469	6%
Utilities	263,278	266,515	334,704	71,426	27%	68,189	26%
Insurance	1,848,893	1,825,746	2,055,177	206,284	11%	229,431	13%
Lease/Rents	234,980	225,699	239,073	4,093	2%	13,374	6%
Other	104,403	104,571	99,836	(4,567)	-4%	(4,735)	-5%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 5,118,029**	**$ 5,093,154**	**$ 5,617,002**	**$ 498,973**	**10%**	**$ 523,848**	**10%**
Total	**$ 14,844,908**	**$ 14,578,592**	**$ 16,354,359**	**$ 1,509,451**	**10%**	**$ 1,775,767**	**12%**
Capitalized Overhead	(2,927,126)	(2,875,190)	(3,154,828)	(227,702)	8%	(279,638)	10%
GRAND TOTAL	**$ 11,917,782**	**$ 11,703,402**	**$ 13,199,531**	**$ 1,281,749**	**11%**	**$ 1,496,129**	**13%**

ADMINISTRATIVE SERVICES BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Admin Svcs & Board Support	$ 2,472,748	$ 2,377,129	$ 3,044,285	$ 571,537	23%	$ 667,156	28%
Purchasing & Risk	2,445,669	2,402,530	2,716,297	270,628	11%	313,766	13%
Information Technology	6,145,650	6,079,578	6,681,137	535,487	9%	601,559	10%
Facilities Services	853,715	844,165	757,813	(95,902)	-11%	(86,352)	-10%
TOTAL ADMINISTRATIVE SERVICES	**$ 11,917,782**	**$ 11,703,402**	**$ 13,199,531**	**$ 1,281,749**	**11%**	**$ 1,496,129**	**13%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Administrative Services Manager	1.00	1.00	1.00	1.00	1.00	1.00
Assistant Management Analyst [2]	0.00	0.00	0.00	0.00	1.00	1.00
Director of Administrative Services	1.00	1.00	1.00	1.00	1.00	1.00
Facilities Services Technician	1.00	1.00	1.00	1.00	1.00	1.00
Help Desk Support Specialist	1.00	1.00	1.00	1.00	1.00	1.00
Information Security Officer [1]	0.00	0.00	0.00	0.00	1.00	1.00
Information Systems Analyst [3]	2.00	2.00	2.00	2.00	1.00	1.00
Information Systems Manager	1.00	1.00	1.00	1.00	1.00	1.00
Information Systems Supervisor	3.00	3.00	3.00	3.00	3.00	3.00
Management Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Network Administrator [4]	2.00	2.00	2.00	2.00	0.00	0.00
Purchasing Technician I	1.00	1.00	1.00	1.00	1.00	1.00
Purchasing Technician II [2]	1.00	1.00	1.00	1.00	0.00	0.00
Receptionist	1.00	1.00	1.00	1.00	1.00	1.00
Senior Information Systems Analyst [3,4]	6.00	6.00	6.00	6.00	9.00	9.00
Senior Management Analyst	2.00	2.00	2.00	2.00	2.00	2.00
Senior Office Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Supervising Management Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Systems Administration & Support Specialist	2.00	2.00	2.00	2.00	2.00	2.00
Warehouse Supervisor	1.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**30.00**	**29.00**	**29.00**	**29.00**	**30.00**	**30.00**

1. Information Security Officer is a new Classification. Operations and Maintenance Manager FTE was transferred from Operations & Maintenance in Fiscal Year 2019.
2. Purchasing Technician II reclassified to Assistant Management Analyst as part of the Fiscal Year 2019 Classification Study.
3. One Information Systems Analyst reclassified to Senior Information Systems Analyst as part of the Fiscal Year 2019 Classification Study.
4. Two Network Administrators reclassified to Senior Information Systems Analysts as part of the Fiscal Year 2019 Classification Study.

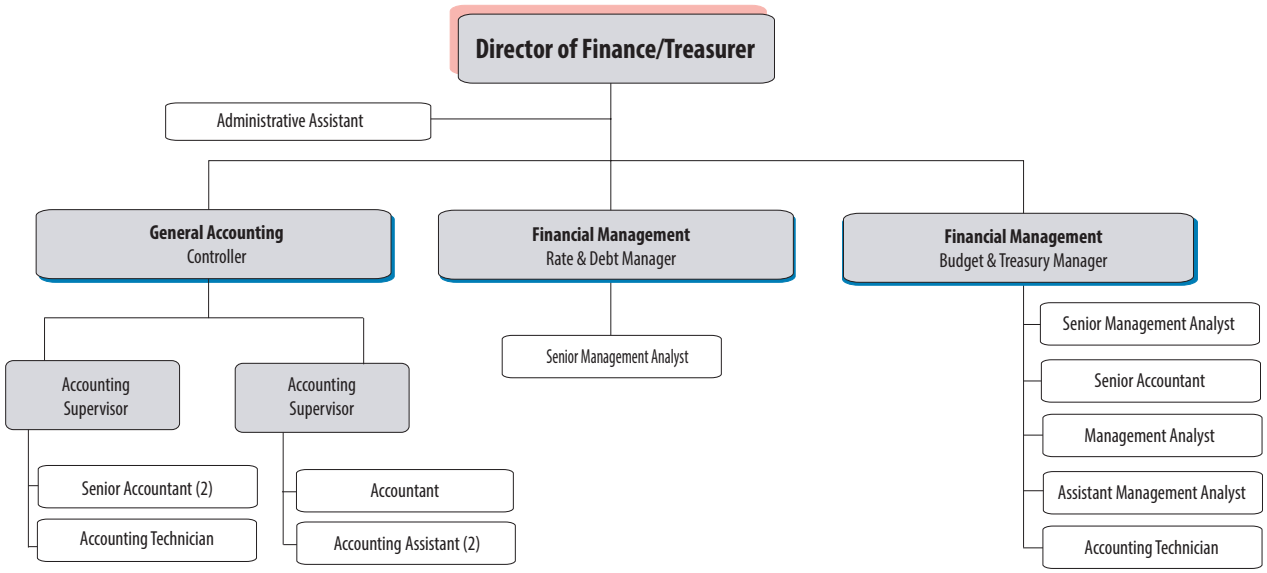
Finance Department

OVERVIEW

The Finance Department is responsible for supporting the mission of the Water Authority, the Board of Directors, management, employees, and other stakeholders by providing innovative, proactive, and strategic financial management. Central to achieving this mission is ensuring there are adequate internal financial controls in place and that financial reports are accurate, timely, and in accordance with accounting standards.

The General Accounting division is responsible for the functional management of the PeopleSoft financial system, accounts payable/receivable, capital project accounting, internal controls, monthly financials, the Board of Directors' Audit Committee, grant accounting and reporting, and the Comprehensive Annual Financial Report (CAFR). The Financial Management division is responsible for the Water Authority's multi-year budget, payroll, long-range financial planning, debt management, credit rating and investor relations, rates and charges, and the investment of funds. The department also provides support for specific programs, including Seawater Desalination, Metropolitan Water District (MWD), and Colorado River Program, as well as Water Authority executive management.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Secured nearly $18.0 million in savings on future debt payments for the region's water ratepayers by refinancing the Claude "Bud" Lewis Carlsbad Desalination Pipeline bonds.
- Extended the Bank of America liquidity facility supporting the Water Authority's Commercial Paper (CP) Series 9, and selected Bank of the West as a new liquidity facility provider for CP series 10 generating a total annual savings of $190,000.
- Implemented and updated the Water Authority's Investment strategy following industry best practices that included a bifurcation of the investment portfolio to include liquid and core investments, outsourcing of the portfolio to an external manager with dedicated investment expertise and resources, and updated the investment policy taking full advantage of the investment types permitted by California Government Code. The implemented strategy provides the Water Authority a well-diversified investment approach that emphasizes high credit quality, strong management of risk and liquidity while also enhancing returns in excess of $1.1 million from the previous two-year budget.
- Performed extensive Cost of Service review with Member Agency General Managers and Finance Officers. Engaged in over 12 workshops to review annual rate setting process and cost allocations. Following input from Member Agencies, the existing Financial Rate Modeling Program was completely overhauled and streamlined to ensure a continued transparent rate-setting process.
- Updated Statement of Debt Management and Disclosure Policy.
- Implemented a Policy Framework and Funding Strategy for Water Authority Pension.
- Implemented Governmental Accounting Standards Board (GASB) Statements Nos. 88 and 89.
- Conducted comprehensive review of existing allocation of indirect overhead to Capital Improvement Program projects (Overhead Allocation Practices Study).
- Performed Equipment Replacement Fund (ERF) policy study, created comprehensive ERF assets list, and adopted a new Equipment Replacement Policy.
- Director of Finance/Treasurer was honored as one of the 2018 Bond Buyer's Trailblazing Women in Public Finance.
- Awarded the Certification of Achievement for Distinguished Budget Presentation for the Multi-Year Budget for the 23rd consecutive year from the Governmental Finance Officers Association (GFOA).
- Awarded the Operating Budget Excellence Award from the California Society of Municipal Finance Officers for the Fiscal Years 2018 and 2019 Budget, an award received consistently since 2000.
- Awarded the Certificate of Excellence in Financial Reporting for the Comprehensive Annual Financial Report for the 18th consecutive year from the GFOA.

- Representation and participation on committees of the California Society of Municipal Finance Officers (CSMFO), Women in Public Finance, Government Finance Officers Association (GFOA), and the California Municipal Treasurers Association (CMTA).
- Managed the desalination pipeline funds and payments.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Finance Department's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $5.2 million, a $277,687, or 6%, increase over the previous two-year budget. This change is primarily a result of increases in labor and benefit costs.

Initiatives

- Complete a cost of service study for Calendar Years 2021 and 2022.
- Work collaboratively with the Board and Member Agency General Managers to prepare the 2020 Long - Range Financing Plan, and Calendar Years 2021 and 2022 rates and charges.
- Complete California Pollution Control Financing Authority project debt financing for the Water Furnishing Revenue Bonds, Series 2019 in support of the construction of the sea water intake and discharge facilities at the Carlsbad Desalination Plant.
- Participate in implementation of the Water Billing and Information Management System (WBIS) project (subsequently renamed the Data Archival and Invoicing System – DAIS) to replace the existing PRIMA and WBIS system (Business Objective No.6 under Business Services: Financial Management).
- Complete review and update of budgeting processes to ensure efficiency and continued best practices (Business Objective No.7 under Business Services: Financial Management).
- Develop Other Post-Employment Benefits funding policy covering the Water Authority's retiree medical benefit offered to employees and an annual review of recently adopted Pension Plan funding strategy to ensure compliance with adopted framework.

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.
- In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and address the changing needs of the workforce. Changes from the

Classification Study are reflected in the department's adopted budget for Fiscal Years 2020 and 2021 and are shown in the Personnel Requirements table.

- The Labor budget for Fiscal Years 2020 and 2021 is about $177,000, or 4%, more than the previous budget. Finance downgraded two positions beginning Fiscal Year 2020. One Management Analyst was downgraded to an Assistant Management Analyst and the Investment Analyst was downgraded to a Senior Accountant. One position was upgraded from a Management Analyst to a Senior Management Analyst during Fiscal Year 2019.
- Non-personnel expenses for Fiscal Years 2020 and 2021 have decreased 6% from the previous two-year budget. This decrease is primarily due to a reduction in Leases.
- The Finance Department is budgeted to spend the same number of hours on the CIP in Fiscal Year 2020 and 2021. As a result, the Finance Department will stay relatively flat on Overhead Transferred to the CIP.

FINANCE BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 3,997,744	$ 3,830,453	$ 4,174,500	$ 176,756	4%	$ 344,048	9%
Benefits	2,010,774	1,820,428	2,180,258	169,484	8%	359,830	20%
Labor & Benefits Total	**$ 6,008,518**	**$ 5,650,881**	**$ 6,354,758**	**$ 346,240**	**6%**	**$ 703,878**	**12%**
Direct Charges to CIP/Grants	-	-	-	-	-	-	-
Operating Labor & Benefits	**$ 6,008,518**	**$ 5,650,881**	**$ 6,354,758**	**$ 346,240**	**6%**	**$ 703,878**	**12%**
Services	930,108	1,069,955	923,948	(6,160)	-1%	(146,007)	-14%
Supplies	20,420	18,644	22,675	2,255	11%	4,031	22%
Utilities	225	115	200	(25)	-11%	85	74%
Insurance	-	-	-	-	-	-	-
Lease/Rents	68,092	66,720	-	(68,092)	-100%	(66,720)	-100%
Other	61,604	52,795	64,340	2,736	4%	11,545	22%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 1,080,449**	**$ 1,208,228**	**$ 1,011,163**	**$ (69,286)**	**-6%**	**$ (197,065)**	-16%
Total	**$ 7,088,967**	**$ 6,859,109**	**$ 7,365,921**	**$ 276,954**	**4%**	**$ 506,812**	**7%**
Capitalized Overhead	(2,149,782)	(2,038,235)	(2,149,049)	733	-	(110,814)	5%
GRAND TOTAL	**$ 4,939,185**	**$ 4,820,875**	**$ 5,216,872**	**$ 277,687**	**6%**	**$ 395,998**	**8%**

FINANCE BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
General Accounting	$ 2,261,725	$ 2,254,868	$ 2,350,101	$ 88,376	4%	$ 95,234	4%
Financial Management	2,677,460	2,566,007	2,866,771	189,311	7%	300,764	12%
TOTAL FINANCE	**$ 4,939,185**	**$ 4,820,875**	**$ 5,216,872**	**$ 277,687**	**6%**	**$ 395,998**	**8%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Accountant	1.00	1.00	1.00	1.00	1.00	1.00
Accounting Assistant I	1.00	1.00	0.00	0.00	0.00	0.00
Accounting Assistant II	1.00	1.00	2.00	2.00	2.00	2.00
Accounting Supervisor	2.00	2.00	2.00	2.00	2.00	2.00
Accounting Technician	2.00	2.00	2.00	2.00	2.00	2.00
Administrative Assistant	0.90	0.90	1.00	1.00	1.00	1.00
Assistant Management Analyst [1]	0.00	0.00	0.00	0.00	1.00	1.00
Budget & Analysis Manager [3]	0.00	0.00	1.00	1.00	0.00	0.00
Budget & Treasury Manager [3]	0.00	0.00	0.00	0.00	1.00	1.00
Controller	1.00	1.00	1.00	1.00	1.00	1.00
Director of Finance/Treasurer	1.00	1.00	1.00	1.00	1.00	1.00
Financial Analyst	1.00	1.00	0.00	0.00	0.00	0.00
Financial Planning Manager [4]	1.00	1.00	1.00	1.00	0.00	0.00
Financial Resources Analyst	1.00	1.00	0.00	0.00	0.00	0.00
Financial Resources Manager	1.00	1.00	0.00	0.00	0.00	0.00
Investment Analyst [2]	1.00	1.00	1.00	1.00	0.00	0.00
Management Analyst [1,5]	1.00	1.00	3.00	3.00	1.00	1.00
Rate & Debt Manager [4]	0.00	0.00	0.00	0.00	1.00	1.00
Senior Accountant [2]	2.00	2.00	2.00	2.00	3.00	3.00
Senior Management Analyst [5]	1.00	1.00	1.00	1.00	2.00	2.00
TOTAL	**18.90**	**18.90**	**19.00**	**19.00**	**19.00**	**19.00**

1. One Management Analyst downgraded to an Assistant Management Analyst in Fiscal Year 2020.
2. Investment Analyst downgraded to Senior Accountant in Fiscal Year 2020.
3. Budget & Analysis Manager reclassified to Budget & Treasury Manager as part of the Fiscal Year 2019 Classification Study.
4. Financial Planning Manager reclassified to Rate & Debt Manager in Fiscal Year 2018.
5. One Management Analyst reclassified to Senior Management Analyst in Fiscal Year 2018.

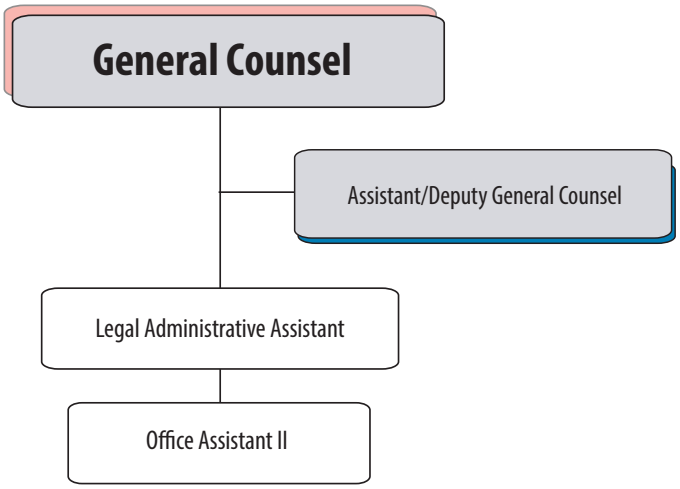
This page intentionally left blank

General Counsel

OVERVIEW

The General Counsel is the chief legal officer of the Water Authority. In accordance with Chapter 2.08 of the Administrative Code, the General Counsel manages the legal affairs of the Water Authority, supervises special counsel, and provides a full range of legal services to the Board and Water Authority staff in the performance of official duties. The General Counsel's office ensures that Water Authority business is conducted according to all applicable state, federal, and local laws; provides legal support to assist the accomplishment of the Water Authority's policy goals and objectives; and may represent the Water Authority, its officers and employees in litigation and administrative proceedings.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Achieved dismissal of Kimball lawsuit.
- Successful dismissal of Prop. 26 claim in Food & Water Watch lawsuit.
- Settled Sprouts eminent domain litigation.
- Successful contractual arrangements with retiring General Manager.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

Initiatives

- Support the Water Authority's negotiated settlement efforts with the Metropolitan Water District over its improperly allocated rates in accordance with Board direction.
- Efficiently and effectively manage litigation serviced by outside counsel.
- Expeditiously process claims filed against the Water Authority.
- Provide in-house counsel services to the Board and Water Authority departments in accordance with chapter 2.08 of the Administrative Code.
- Successful hire of new Assistant General Counsel upon retirement of existing Assistant.

Modifications

The General Counsel's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $6.6 million, a 3% decrease compared to the previous two-year budget. A summary of changes is provided below:

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.
- The Services budget decreased by $267,830, a 5% savings, due to numerous small changes in many categories. It should be noted that the MWD rate case budget (the majority of the Services category) for outside litigation counsel is very close to what was actually used in the past budget period. However, should the cases be more active in this budget cycle, which absent settlement may be the case, then this portion of the budget would likely need to increase.

GENERAL COUNSEL BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 1,129,817	$ 1,131,877	$ 1,218,273	$ 88,455	8%	$ 86,396	8%
Benefits	551,584	547,303	617,045	65,460	12%	69,742	13%
Labor & Benefits Total	**$ 1,681,402**	**$ 1,679,180**	**$ 1,835,317**	**$ 153,915**	**9%**	**$ 156,137**	**9%**
Direct Charges to CIP/Grants	-	-	-	-	-	-	-
Operating Labor & Benefits	**$ 1,681,402**	**$ 1,679,180**	**$ 1,835,317**	**$ 153,915**	**9%**	**$ 156,137**	**9%**
Services	5,789,070	5,787,021	5,521,240	(267,830)	-5%	(265,781)	-5%
Supplies	39,280	35,168	39,380	100	-	4,212	12%
Utilities	700	346	700	-	-	354	102%
Insurance	380	145	380	-	-	235	162%
Lease/Rents	-	-	-	-	-	-	-
Other	40,500	27,573	37,585	(2,915)	-7%	10,012	36%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 5,869,930**	**$ 5,850,254**	**$ 5,599,285**	**$ (270,645)**	**-5%**	**$ (250,969)**	**-4%**
Total	**$ 7,551,332**	**$ 7,529,434**	**$ 7,434,602**	**$ (116,730)**	**-2%**	**$ (94,831)**	**-1%**
Capitalized Overhead	(755,375)	(709,581)	(819,966)	(64,591)	9%	(110,385)	16%
GRAND TOTAL	**$ 6,795,957**	**$ 6,819,853**	**$ 6,614,636**	**$ (181,321)**	**-3%**	**$ (205,216)**	**-3%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Assistant/Deputy General Counsel	1.00	1.00	1.00	1.00	1.00	1.00
General Counsel	1.00	1.00	1.00	1.00	1.00	1.00
Legal Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Office Assistant II	1.00	1.00	1.00	1.00	1.00	1.00
TOTAL	**4.00**	**4.00**	**4.00**	**4.00**	**4.00**	**4.00**

This page intentionally left blank

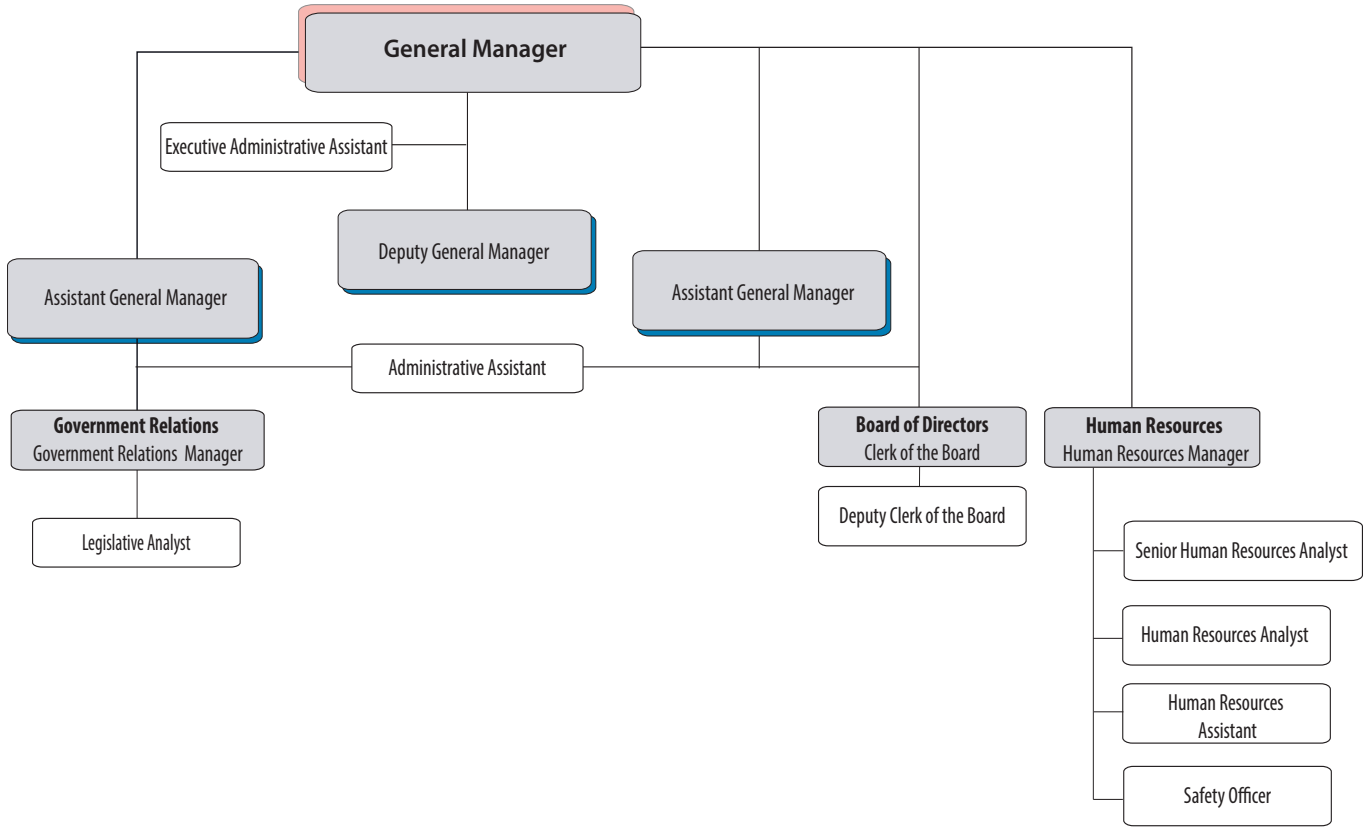
General Manager and Board of Directors

OVERVIEW

The General Manager's Office manages and directs the activities of the Water Authority. Specifically, the General Manager's Office: implements the Board's Strategic Plan and policies through the programs of the Business Plan; provides oversight of the Water Authority's extensive infrastructure system; communicates and advocates adopted policy positions and programs of the Water Authority to local, state, and federal officials and agencies; and provides staff assistance to the Board of Directors.

This department also contains the direct expenses of the Board of Directors and several other individual divisions including the Clerk of the Board, Government Relations, and Human Resources. The Clerk of the Board maintains the legislative history of the Board of Directors' action, preserves the permanent records, and facilitates the publishing and posting of agenda in accordance with the California Government Code "Brown Act." Government Relations implements Board policy direction within the state and federal legislative environments to secure favorable legislation, funding, or other outcomes that will help ensure continued safe and reliable water supplies for the region, and manages the Water Authority's Bay-Delta program and involvement. Human Resources provides diverse support in the areas of training and development, recruitment and selection, employee and labor relations, and compensation and benefits.

ORGANIZATIONAL CHART



FISCAL YEARS 2018 AND 2019 ACCOMPLISHMENTS

- Maintained an employee turnover rate of 6% or less annually (factoring out retirements) each fiscal year.
- Reduced the number of days lost due to workplace injury to 10% below industry standards.
- Human Resources facilitated the filling of 47 full-time new hires and onboarding process and facilitated 39 internal promotions.
- Updated Innovation Program Manual to reflect accomplishments and early program revisions.
- Conducted three new technology pilot tests per fiscal year and provided recommendations for potential implementation.
- The Water Authority advocated successfully for passage and enactment of AB 2371 (Carrillo), a measure co-sponsored with the Natural Resources Defense Council, which statutorily advanced several components from a comprehensive report to improve landscape water use efficiency, including provisions relating to home inspections, trade examinations for landscape professions, improving consumer access to water use information associated with purchase of landscape plants, and improving accessibility and clarity of a standard reference guide that provides information relating to the water needs of landscape plants in California.
- The Water Authority co-sponsored legislation with the Otay Water District to ensure that military veterans receive appropriate crediting and equivalency standards for experience and education gained during military service that could translate toward certification eligibility for civilian water and wastewater treatment plant operator occupations.
- Governor's Executive Order/ Portfolio Strategy for State.
  - The Water Authority has long advocated for a portfolio approach to addressing water supply issues in California, emphasizing the development of local and regional drought-resilient water supplies that help to reduce reliance on the Bay-Delta for future water supplies.
  - The Governor's issuance of Executive Order N-10-19 outlines a water supply development and management approach for California that closely resembles the model of local and regional water supply development that has long been advanced and implemented by the Water Authority and its member agencies within the San Diego region.
- The Water Authority led a concerted engagement effort to address the desal intake permit revisions. Working with Poseidon, elected officials, Department of Natural Resources, and the State Water Resources Control Board Chair, the permit revisions approved at the Regional Water Quality Control Board addressed the concerns of the Water Authority and the region — an accomplishment that was viewed as unattainable only a few weeks prior.

- Made significant progress in Energy Storage projects, including installation of battery storage system at the Twin Oaks Valley Water Treatment Plant, which is projected to save approximately $100,000 per year in energy costs; issuance of a new 4-year preliminary permit for the potential San Vicente Energy Storage Facility project by the Federal Energy Regulatory Commission; and the negotiation and execution by the San Vicente Energy Storage Facility team of a term sheet with a private developer, which will be used as the basis for a future Project Development Agreement.
- Continued active engagement with member agencies to facilitate their priorities in the region and with the Water Authority.
- Reached agreement with the Teamsters Local 911 Unit represented the three bargaining units (Managerial/Supervisory, Professional/Administrative, and Technical/Support Groups) in the Water Authority for a two year successor Memorandum of Understanding.
- The Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and addressed the changing needs of the workforce. The Study involved job analysis questionnaires for every position at the Water Authority, interviews with employees and supervisors, and meeting and conferring with the Union over any impacts.
- Framework for addressing state's desire to fund failing water system through means other than water tax.
  - The Water Authority Board of Directors is advocating for a comprehensive approach to addressing the long-standing safe drinking water concerns of communities throughout California.
  - Previous approaches to improving drinking water conditions have focused on the imposition of a tax on drinking water accounts or service connections as a means of generating sustainable revenue to fund a statewide program.
  - The Water Authority Board has advanced an approach that draws on credible funding sources that do not involve the imposition of a water tax, development of a meaningful structure for administering a program within the appropriate state regulatory agency, and advancement of structural and service-delivery reforms within affected communities as a comprehensive package solution to addressing safe drinking water issues on a long-term basis.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The General Manager and Board of Director's Adopted Operating Budget for Fiscal Years 2020 and 2021 is $ 9.4 million, a $186,879, or 2%, increase over the prior two-year budget. This change is primarily as result of a decrease in the direct charges to the CIP, overhead transferred to CIP and increases in other expenses. The Energy Program was transferred from the General Manager's Office to the Engineering Department during Fiscal Year 2018.

Initiatives

- Develop and produce job preview videos, showcasing our industry and what a hard-to-recruit-for job looks like.
- Implement new employee onboarding program to ensure managers and new hires are provided with available resources in a modern, streamlined, trackable manner.
- Research board agenda management for process and efficiency improvement.
- The Water Authority is continuing to pursue opportunities to advance the San Diego region's interests in providing a statutory path forward for the development of large-scale energy storage to improve electric grid reliability and integrate renewable sources of power into the state's energy system to help achieve renewable standards portfolio and zero-carbon emission objectives.
- The Water Authority will conduct a Compensation Survey in Fiscal Year 2021 to ensure we manage job classifications and pay employees in a manner that is fair, strategic, and competitive within a given market.
- Continue engagement with Governor Newsom and the Administration to fulfill Executive Order /Portfolio approach to Water Management.
  - In the coming months, the Water Authority will be actively pursuing opportunities to engage with the Governor and his designated cabinet secretaries regarding the Water Authority's interest and willingness to be a partner with the Administration in the development of a long-term water resiliency plan for California that includes a portfolio approach to water supply development and management.
  - The Water Authority will be advancing a series of concepts, proposals, and initiatives within the context of the Governor's water resiliency planning effort that will involve water, conveyance, storage, treatment, and energy opportunities with strategic partners in Imperial Valley, Mexico, and across the Southwest, with the objective of improving California's water conditions for the benefit of multiple urban, suburban, and agricultural communities and regions.
- Facilitate active staff engagement by executive and senior management in the community to promote an understanding of the Water Authority and water issues in region and State.
- Continue efforts to obtain a storage account in Lake Mead, which would provide additional drought-resilience for the San Diego region and benefit the entire Colorado River Basin by increasing the elevation of Lake Mead.
- Working with staff, the Board of Directors will engage in a collaborative process to develop long range goals regarding water supply reliability beyond 2035.

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.

- In Fiscal Year 2019 the Water Authority completed a Classification Study that updated all classification specifications to ensure they properly represent the necessary classification requirements and addressed the changing needs of the workforce. Changes from the Classification Study are reflected in the department's adopted budget for Fiscal Years 2020 and 2021 and are shown in the Personnel Requirements table.

- In Fiscal Year 2018 Energy, including the Energy Manager and Senior Management Analyst positions, was transferred to the Engineering Department to align with organizational goals and priorities.

- As a result of personnel changes in the General Manager's Office there are no direct charges to CIP. The Labor and Benefits budget increased by 9%, which is offset by an increase in Overhead Transferred to CIP.

- The Services budget shows a 2% decrease as a result of savings in professional and legal services.

- The Supplies budget increased 58% from the previous two-year budget, primarily due to necessary Safety Materials and Supplies.

- The Other category increased by a net amount of $127,662. This is mainly due to increased needs for travel, training and memberships expenses.

GENERAL MANAGER AND BOARD OF DIRECTORS BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 4,561,535	$ 4,492,184	$ 4,869,695	$ 308,160	7%	$ 377,511	8%
Benefits	2,303,154	2,266,087	2,523,751	220,597	10%	257,664	11%
Labor & Benefits Total	**$ 6,864,689**	**$ 6,758,271**	**$ 7,393,446**	**$ 528,757**	**8%**	**$ 635,175**	**9%**
Direct Charges to CIP/Grants	(100,119)	(116,677)	-	100,119	-100%	116,677	-100%
Operating Labor & Benefits	**$ 6,764,570**	**$ 6,641,594**	**$ 7,393,446**	**$ 628,877**	**9%**	**$ 751,852**	**11%**
Services	2,491,935	1,859,149	2,446,282	(45,653)	-2%	587,133	32%
Supplies	67,789	57,871	106,787	38,998	58%	48,916	85%
Utilities	21,500	20,454	22,500	1,000	5%	2,046	10%
Insurance	46,800	19,267	46,800	-	-	27,533	143%
Lease/Rents	154,557	138,265	161,845	7,288	5%	23,580	17%
Other	774,271	807,554	901,933	127,662	16%	94,379	12%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 3,556,852**	**$ 2,902,560**	**$ 3,686,147**	**$ 129,295**	**4%**	**$ 783,587**	**27%**
Total	**$ 10,321,422**	**$ 9,544,154**	**$ 11,079,593**	**$ 758,171**	**7%**	**$ 1,535,439**	**16%**
Capitalized Overhead	(1,068,809)	(1,036,909)	(1,640,102)	(571,293)	53%	(603,193)	58%
Grand Total	**$ 9,252,612**	**$ 8,507,245**	**$ 9,439,491**	**$ 186,879**	**2%**	**$ 932,246**	**11%**

GENERAL MANAGER AND BOARD OF DIRECTORS BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
GM Administration	$ 2,931,097	$ 2,350,969	$ 2,994,000	$ 62,903	2%	$ 643,031	27%
Board of Directors	1,405,384	1,414,395	1,513,005	107,621	8%	98,610	7%
Governmental Relations	2,181,939	2,150,671	2,357,821	175,882	8%	207,150	10%
Energy	83,091	83,091	-	(83,091)	-100%	(83,091)	-100%
Human Resources	2,651,101	2,508,120	2,574,666	(76,436)	-3%	66,546	3%
Total General Manager & BOD	**$ 9,252,612**	**$ 8,507,245**	**$ 9,439,491**	**$ 186,879**	**2%**	**$ 932,246**	**11%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Assistant General Manager	0.50	0.50	1.50	1.50	1.50	1.50
Clerk of the Board	1.00	1.00	1.00	1.00	1.00	1.00
Deputy Clerk of the Board	1.00	1.00	1.00	1.00	1.00	1.00
Deputy General Manager	2.00	2.00	1.00	1.00	1.00	1.00
Engineering Manager	1.00	1.00	0.00	0.00	0.00	0.00
Energy Manager [1]	0.00	0.00	1.00	1.00	0.00	0.00
Executive Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
General Manager	1.00	1.00	1.00	1.00	1.00	1.00
Government Relations Manager	1.00	1.00	1.00	1.00	1.00	1.00
Human Resources Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Human Resources Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Human Resources Manager	1.00	1.00	1.00	1.00	1.00	1.00
Legislative Analyst [2]	1.00	1.00	1.00	1.00	1.00	1.00
Safety Officer	1.00	1.00	1.00	1.00	1.00	1.00
Senior Human Resources Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Senior Management Analyst [1]	1.00	1.00	1.00	1.00	0.00	0.00
Total	**16.50**	**16.50**	**16.50**	**16.50**	**14.50**	**14.50**

1. Energy Manager and Senior Management Analyst FTEs were transferred to Engineering Department in Fiscal Year 2018.
2. Assistant Management Analyst reclassified to Legislative Analyst as part of the Fiscal Year 2019 Classification Study.

This page intentionally left blank

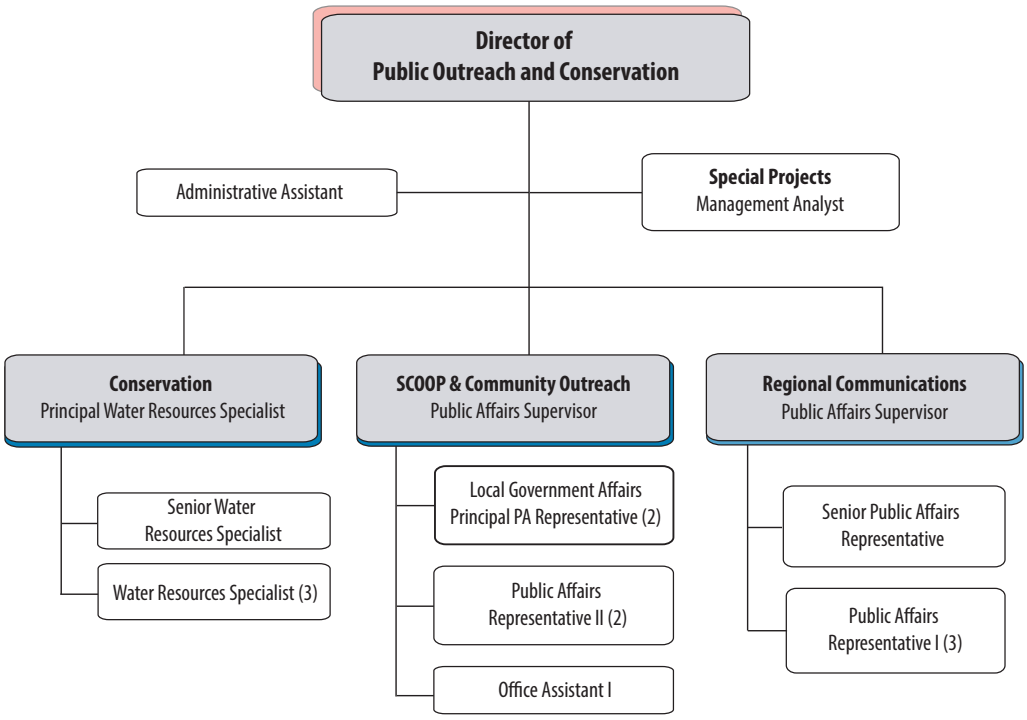
Public Outreach and Conservation Department

OVERVIEW

The Public Outreach and Conservation Department oversees an array of strategies and programs related to increasing public awareness of the Water Authority's efforts and investments to provide the region with a safe, reliable water supply, and for motivating water users to improve or maintain long-term water-use efficiency. During drought conditions, the department also pursues strategies and tactics designed to help the region immediately increase water conservation to stay within appropriate water-use targets.

The department engages key audiences including news media, business organizations, civic leaders, teachers, school-age children, and members of the public to assist in understanding and appreciating the Water Authority's strategies, projects, and programs. The department also supports member agency efforts through grant and operations-funded programs and initiatives focused on facilitating long-term behavioral change and market transformation. The department also runs programs to encourage and train more small businesses to bid on Water Authority contracts; and it helps to lessen the impact of Water Authority construction projects on affected neighborhoods and audiences through staff and consultant outreach efforts.

ORGANIZATIONAL CHART



FISCAL YEAR 2018 AND 2019 ACCOMPLISHMENTS

The Public Outreach and Conservation Department (POC) supported a wide range of initiatives and programs to increase knowledge and understanding of the region's complex water issues, invite engagement, and support programs that help specific audiences use water more efficiently. The POC department also supported the Water Authority's innovation and energy programs with communication and outreach; led small business participation efforts; and initiated community outreach in support of Water Authority initiatives and capital projects. Specific highlights include:

- Strategic development and implementation of the San Diego regional communications program, which involved development of two major initiatives:
  - Value of Water Communications: In February 2018, the Board approved the Brought to You by Water program. This outreach program showcases the value of investments made by the Water Authority and its member agencies in support of the region's $231 billion economy and quality of life for its 3.3 million residents by highlighting iconic regional industries using video, social media, advertising and earned media to communicate their connection to safe and reliable water supplies.
  - In May 2018, the Water Authority rolled out the Water News Network (WNN), a website to enhance communication of Water Authority, member agency and water-related news. Adapting to the changing media landscape, the agency created the WNN website as a core element of the Brought to You by Water outreach program for communicating complex issues to civic leaders, elected officials, the business stakeholders and ratepayers. Each week, Water Authority and member agency staff generate several original stories, photos and videos for the site and share them on social media. In addition, the Water Authority curates water-related stories by local, state and national news media and trade media outlets every business day. Staff also distributes daily email summaries of top stories to stakeholders across the region to promote understanding of water issues.
- The POC department supported an active civic engagement program that resulted in strong and productive stakeholder advocacy on several issues, including helping to defer a proposed water tax by the state legislature. A major milestone was achieved with the graduation of 650 civic and community leaders from the Citizens Water Academy. The POC department also supported ongoing needs, such as small-business participation in agency procurements, long-term transformation toward more efficient outdoor water use, and community outreach to support capital projects.
- The department's conservation team continued to implement tools and programs that help the region advance long-term water efficiency, including the Qualified Water Efficient Landscaper professional training program and the WaterSmart Landscape Makeover Program's Design for Homeowners workshops and Videos on Demand. In addition, after a successful court ruling, the Water Authority received access to $2.1 million to develop local conservation programming. These funds were used to offset operational funds when possible, which resulted in $85,000 in savings, which is consistent with Business Plan objectives to reduce operational funding levels where feasible to take advantage of available grant funding (Business Plan Objectives Nos. 4 and 6 under Water

Supply: Resource Planning, and Business Plan Objective No. 4 under Business Services: Communication and Messaging).

- To maximize rebate amounts and streamline staff efforts, the Water Authority-run Sustainable Landscape Program (SLP) was closed to new applications on July 1, 2018 after MWD announced the launch of a similar program. About $400,000 in Prop 84 funding was diverted from SLP to support an enhanced rebate amount for MWD program participants in the San Diego region.

FISCAL YEARS 2020 AND 2021 INITIATIVES AND BUDGET MODIFICATIONS

The Public Outreach and Conservation Department's Operating Budget for Fiscal Years 2020 and 2021 is approximately $8.6 million, an $616,714, or 8% increase from the previous two-year budget. The budget increase is primarily the result of the board-approved continuation of the Brought to You by Water program in January 2019. The funds were originally approved for this program in February 2018 as part of a board initiative to enhance regional communications.

Initiatives

Support core regional communications and outreach services and sustain a board-approved enhanced effort to build wider levels of community awareness and appreciation for the Water Authority's and member agencies' efforts to provide safe, reliable water supplies for the region. (Business Plan Objectives No. 1, 3, 4, 5, 6, and 13 under Business Services: Communication and Messaging). These initiatives include:

- Support board-approved, enhanced outreach efforts, including Brought to You by Water.
- Host three classes of the Citizens Water Academy and supplemental alumni activities annually.
- Support expanded efforts to increase the Water Authority's profile to key audiences, including the local legislative arena.
- Continue to provide high-quality outreach to support the timely implementation of key CIP projects, asset management projects and ongoing operations (Business Plan Objectives No. 1, 3, 6 and 13 under Business Services: Communication and Messaging).
- Achieve Board-set small business participation targets with effective Small Contractor Outreach and Opportunity Program training and other activities.
- Continue implementation of core programs including WaterSmart Field Services (residential and commercial water-use audits and surveys), K-12 education programs (school assemblies and Splash Lab visits) and how-to resources such as WaterSmart Landscape Makeover Program (classes, workshops and tools for homeowners).
  - Support professional evaluations of key water-use efficiency programs to measure performance and determine modifications or improvements.
  - Execute targeted marketing of regionally available water-use efficiency resources to help instill efficient water use as a way of life.

  - Conduct periodic review of water efficiency programs to help ensure Water Authority water efficiency initiatives continue to meet needs of member agencies.

- Provide support to ensure development of programs by the Water Authority and member agencies to maximize spending of MWD Member Agency Administered Program (MAAP) funds.

- Provide operational funding needed to complement grant money, or other external funding to support outreach, education and water-use efficiency programs and partnerships that extend the reach of Water Authority efforts and leverage ratepayer investments (Business Plan Objective No. 6 under Water Supply: Resource Planning).

- Help member agencies comply with long-term water-use efficiency goals through administering core water-use efficiency programs and services.

- Continue to provide high-quality outreach to support the timely implementation of key CIP projects, asset management projects and ongoing operations (Business Plan Objectives No. 1, 3, 6 and 13 under Business Services: Communication and Messaging).

- Provide proactive and effective community outreach for all Capital Improvement Program (CIP) and asset management projects scheduled in Fiscal Years 2020 and 2021.

- Achieve board-set small business participation targets with effective Small Contractor Outreach and Opportunity Program training and other activities.

Modifications

- The Fiscal Years 2020 and 2021 adopted budget for labor reflects the full CPI-U (less medical) increases for Fiscal Years 2018 and 2019. Full negotiated increases were absorbed through vacancies in Fiscal Years 2018 and 2019 in an effort to maintain Operating Department costs. The cost impact of increases for Fiscal Years 2020 and 2021 salaries is included in the overall Water Authority budget. The department budget may be amended at mid-term based on actual CPI-U (less medical). The adopted budget for benefits includes forecasted increases in retirement contribution rates as set by the California Public Employees' Retirement System (CalPERS). As a result, the Water Authority is forecasting an increase each year to benefits.

- The Labor budget increase for Fiscal Years 2020 and 2021 is about $182,000, or a 3% increase from the previous budget. In addition to noted changes above a reclassification of a Water Resources Specialist to a Principal Public Affairs Representative occurred and all of the 0.20 of an FTE assigned to MWD Program was moved back to POC department.

- The Services budget for Fiscal Years 2020 and 2021 increased by $355,874, or 21%, from the previous two-year budget. This increase is primarily attributable to the Brought to You by Water regional communications program. ($50,000 has also been added to the Regional Communications services budget for the San Diego Economic Development Corporation outreach and research support.)

- Overall, the POC department's non-personnel budget (including Services) shows an increase of 18%, to support the Brought to You by Water program

- No change was made to the percentage of department services charges to Capitalized Overhead.

Supplemental Funding

- The POC department has actively pursued supplemental funding opportunities to help leverage ratepayer investments in its programs, particularly in water conservation. In Fiscal Years 2020 and 2021 these additional funding sources play a significant role in supporting a robust array of programs while leveraging ratepayer investments in water-use efficiency.

- The Fiscal Years 2020 and 2021 POC department budget includes approximately $800,000 in operating funds to support $3.4 million of grant funded education, outreach, and conservation programs, including:

  - WaterSmart Field Services
  - WaterSmart Landscape Makeover Program
  - Qualified Water Efficient Landscaper Program
  - WaterSmart contractor program
  - Free Sprinkler nozzle.com
  - Agricultural Water Management Program
  - SDG&E Water-Energy Saving Partnership
  - School assembly program
  - Splash Lab school visits
  - Value of water and water efficient marketing and outreach materials
  - Support for member agencies preparation of applications for MAAP funding

PUBLIC OUTREACH AND CONSERVATION BY EXPENSE CATEGORY

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Labor	$ 3,950,689	$ 3,550,070	$ 4,069,953	$ 119,264	3%	$ 519,882	15%
Benefits	2,012,537	1,736,526	2,112,071	99,534	5%	375,545	22%
Labor & Benefits Total	**$ 5,963,226**	**$ 5,286,596**	**$ 6,182,024**	**$ 218,798**	**4%**	**$ 895,428**	**17%**
Direct Charges to CIP/Grants	(206,071)	(111,040)	(242,868)	(36,797)	-1%	(131,828)	-2%
Operating Labor & Benefits	**$ 5,757,155**	**$ 5,175,556**	**$ 5,939,156**	**$ 182,001**	**3%**	**$ 763,600**	**15%**
Services	1,680,768	1,250,216	2,036,642	355,874	21%	786,426	63%
Supplies	57,400	53,153	72,300	14,900	26%	19,147	36%
Utilities	7,500	6,464	7,250	(250)	-3%	786	12%
Insurance	-	-	-	-	-	-	-
Lease/Rents	39,900	39,133	52,900	13,000	33%	13,767	35%
Other	674,989	716,321	726,181	51,192	8%	9,860	1%
Fixed Assets	-	-	-	-	-	-	-
Non Personnel Total	**$ 2,460,557**	**$ 2,065,287**	**$ 2,895,273**	**$ 434,716**	**18%**	**$ 829,986**	**40%**
Total	**$ 8,217,712**	**$ 7,240,843**	**$ 8,834,429**	**$ 616,717**	**8%**	**$ 1,593,586**	**22%**
Capitalized Overhead	(236,501)	(240,469)	(236,504)	(3)	-	3,965	-2%
GRAND TOTAL	**$ 7,981,211**	**$ 7,000,374**	**$ 8,597,925**	**$ 616,714**	**8%**	**$ 1,597,551**	**23%**

PUBLIC OUTREACH AND CONSERVATION BY DIVISION

	FYs 18&19 Amended	FYs 18&19 Estimated	FYs 20&21 Adopted	Variance Budget to Budget		Variance Budget to Estimate	
Community Outreach	$ 838,223	$ 871,353	$ 1,546,371	$ 708,148	84%	$ 675,018	77%
Regional Communications	3,131,716	2,904,121	3,508,907	377,191	12%	604,785	21%
Water Conservation	4,011,272	3,224,900	3,542,647	(468,625)	-12%	317,748	10%
TOTAL PUBLIC OUTREACH & CONSERVATION	**$ 7,981,211**	**$ 7,000,374**	**$ 8,597,925**	**$ 616,714**	**8%**	**$ 1,597,551**	**23%**

PERSONNEL REQUIREMENTS

Regular Status Employees	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	1.00
Assistant Water Resources Specialist	1.00	1.00	0.00	0.00	0.00	0.00
Director of Public Outreach and Conservation	1.00	1.00	1.00	1.00	1.00	1.00
Management Analyst	1.00	1.00	1.00	1.00	1.00	1.00
Office Assistant I	1.00	1.00	1.00	1.00	1.00	1.00
Principal Public Affairs Representative [1]	1.00	1.00	1.00	1.00	2.00	2.00
Principal Water Resources Specialist	2.00	2.00	1.00	1.00	1.00	1.00
Public Affairs Manager [2]	0.80	0.80	0.80	0.80	0.00	0.00
Public Affairs Representative I	1.00	1.00	3.00	3.00	3.00	3.00
Public Affairs Representative II	4.00	4.00	2.00	2.00	2.00	2.00
Public Affairs Supervisor [2]	1.00	1.00	1.00	1.00	2.00	2.00
Senior Public Affairs Representative	1.00	1.00	1.00	1.00	1.00	1.00
Senior Water Resources Specialist	0.00	0.00	1.00	1.00	1.00	1.00
Water Resources Specialist [1]	3.00	3.00	4.00	4.00	3.00	3.00
TOTAL	**18.80**	**18.80**	**18.80**	**18.80**	**19.00**	**19.00**

1. Water Resources Specialist reclassified to Principal Public Affairs Representative in Fiscal Year 2019.
2. Public Affairs Manager reclassified to Public Affairs Supervisor, and additional 0.20 FTE moved from MWD Program in Fiscal Year 2019.

Capital Improvement Program

OVERVIEW

Initiated in 1989, the Capital Improvement Program (CIP) was created to provide the necessary water infrastructure to treat, store, and deliver water, thereby ensuring a safe and reliable water supply to the region. The Water Authority's CIP began as a pipeline design and construction program, and has grown in diversity and size over the last three decades as the Water Authority moved to ensure reliability through expansion of its water resources portfolio. Facilities in the CIP have included pipelines, flow control facilities, pumping stations, hydroelectric facilities, a water treatment plant, and dams. The original 2003 Regional Water Facilities Master Plan, approved by the Board of Directors, served as a basis of the CIP. The Master Plan identifies the water infrastructure projects required to meet the region's supply and conveyance needs over a 20-year planning horizon. The 2003 Master Plan was updated in 2013 and, following completion of the 2020 Urban Water Management Plan, staff will prepare another update focused on infrastructure improvements to optimize system performance. The CIP program helps to advance member agency investments in treatment plant capacity, diversification, and system reliability.

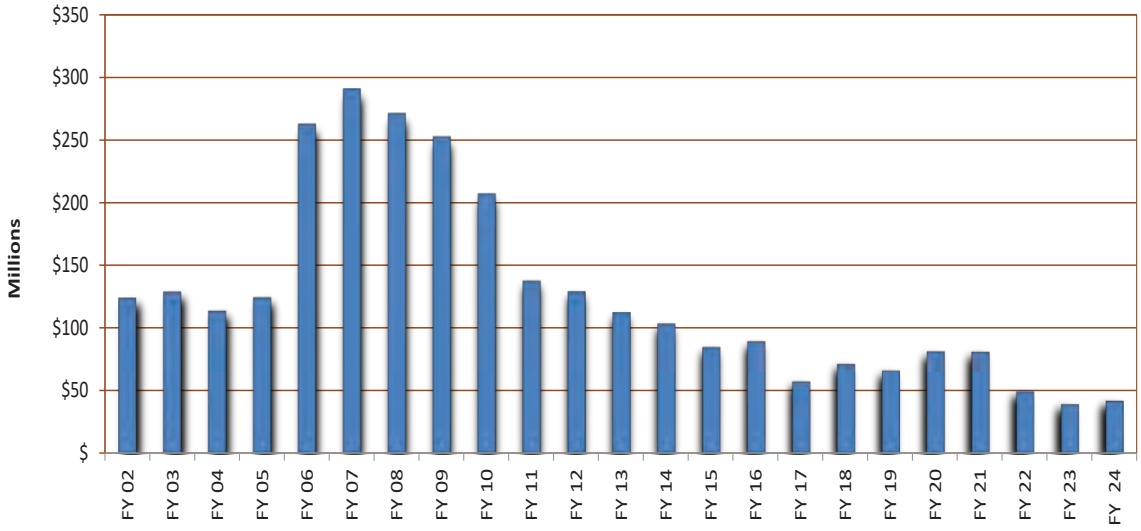
The CIP has accommodated supply diversification as well as the Emergency Storage Project (ESP) to address the threat of losing external sources of water for a temporary amount of time. To successfully manage the CIP, the Water Authority incorporated many measures including constantly monitoring applicable construction material prices, working closely with other agencies with large CIPs, and augmenting a core level of staff with numerous specialized consultants and Limited Duration Employees (LDEs). The LDE positions were limited to a five-year duration, the last CIP LDE position left the Water Authority in 2011. The combination of regular and LDE staff plus consultants allowed the Water Authority to complete the majority of ESP and supply diversification projects without adding to the Water Authority's core staff.

Recent investments in increased storage, pumping facilities, pipelines, treatment facilities, and a drought-proof local treated water supply from the Carlsbad Desalination Project bolstered supply reliability. With the addition of these new facilities and continued reliance on existing facilities, it is critical to maintain and protect the Water Authority's assets. The Water Authority's emphasis has transitioned from a large scale capital intensive program to a focus on effective asset management. An effective Asset Management Program will ensure a high degree of reliability, lower overall costs, and minimize the increase of water rates over time.

Pipe Load Testing (2017)

The CIP peaked in the construction of new water infrastructure between 2006 and 2010. With the completion of the San Vicente Dam Raise Project in 2014 the focus of the CIP has shifted to asset management and optimizing the existing aqueduct system. Figure 1 shows the history of the CIP and planned expenditures over the next five years.

Figure 1: CIP Expenditures and Forecast



To optimize capital project management, staff has developed and broadly employed CIP Best Management Practices (BMPs) for over a decade. BMPs are measures for maximizing resources to achieve success. The goal of the CIP BMPs is to attain sustained, high levels of program and project success. Success is defined as consistently meeting project schedules, budgets, and cash flow projections, while maintaining scope and meeting stakeholder expectations. Some examples of Best Management Practices include the use of the following:

PROJECT RISK MANAGEMENT

Project Risk Management is a proactive process used to mitigate risks through the life of a project to ensure the project scope, schedule, and budget are met. Project Risk Management proactively identifies project risks and establishes measures to minimize or eliminate the risk. It also determines the potential cost of a project based on the risks that could come to fruition. This process begins in the planning phase of a project and contributes towards a realistic project scope, budget, and schedule.

GATE PROCESS

The Gate Process is a staff procedure that ensures all critical project components are completed as the project moves through the planning, design, and construction phases. This process ensures that a phase of a project (i.e. a gate) does not begin until an internal multi-departmental staff committee agrees that all the requirements for the previous gate are satisfied.

HIGHLY DEVELOPED CIP POLICY AND PROCESS DOCUMENTS

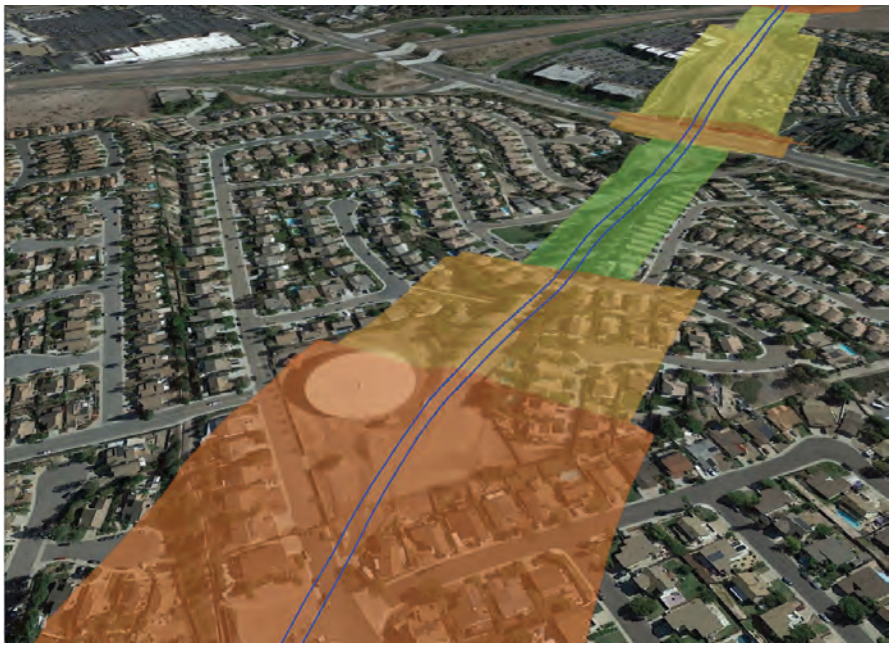
CIP policy and process documents such as Design Manuals, Construction Management Manuals, and Standard Construction Contract Documents, are used to ensure that projects meet Water Authority needs and that consistent business practices are used agency-wide. They also ensure that professional service and construction contractors know how to do business with the Water Authority.

CONSTRUCTION COST ESTIMATING

The Water Authority uses a bottom-up construction cost estimating process which is similar to how a construction contractor assembles their costs on bid day. This process considers current market and economic conditions leading to increased accuracy in the prediction of construction costs, realistic CIP project budgets, and adequate funding needs. During Fiscal Years 2018 and 2019, the Water Authority saw a major change in the construction market and received several bids higher than expected, which required a budget increase at the time of contract award. This issue has been addressed as part of this budget cycle by adjusting near term project budgets to be more aligned with the increases being seen. This will be discussed in further detail below under the CIP Project Budget Changes section.

PROJECT CONTROLS REPORTING

Project Controls Reporting is used to monitor CIP projects. This rigorous monitoring process entails tracking and managing project schedule and expenditures regularly to promote timely completion of the project within the budget. Project Managers are required to use and analyze cost and schedule performance data to proactively identify and avert budget and schedule overruns. Sophisticated cash flow and forecasting tools are also used to plan bond sales and appropriations which help to facilitate debt and associated water rate management.



Pipeline Risk Zones based upon condition assessments.

Program Accomplishments

During the past two-year period the Water Authority received several project awards from professional organizations, including:

- Selected for the 2018 "Outstanding Award" by the American Public Works Association – San Diego & Imperial Counties Chapter for the Miramar Pump Station Rehabilitation and Nob Hill Improvements projects.
- Awarded 2019 "Project Achievement Award" from the Construction Management Association of America for the Pipeline 3 Relining - Lake Murray to Sweetwater Reservoir project.
- Selected for the 2019 "Honor Award" by the American Public Works Association – San Diego & Imperial Counties Chapter for the Pipeline 3 Relining - Lake Murray to Sweetwater Reservoir project.
- Awarded the "Outstanding Project of the Year" in the Parks and Recreation category from the American Society of Civil Engineers for the San Vicente Marina Facilities project.

2019 CMAA Award

ASSET MANAGEMENT

The Water Authority continued its efforts to inspect and rehabilitate pipelines by completing nearly seven miles of pipeline relining and inspecting five miles of pipe with the latest technology. Contractors completed the Pipeline 3 Relining Project in the La Mesa area and the Pipeline 5 Relining Project in the northern portion of our service area using steel liners which will provide approximately 75 years of additional life and reduce the risk of failure in this critical area. In addition, the Water Authority used our in-house staff to develop pioneering equipment to inspect almost 5 miles of our aqueduct system. This included in-house tools to conduct inspections more efficiently and safely such as underwater inspection camera tools, laser pipe diameter measuring device and pipe inspection vehicles. The Water Authority continues to be recognized as a leader in the industry when it comes to our Asset Management Program and our condition assessment program including the first known condition assessment of a steel relined, prestressed concrete cylinder pipeline.

Construction of the Carlsbad 6 Flow Control Facility project was completed in April 2018. This project rebuilt the existing flow control facility originally constructed in the 1950's, bringing the facility up to current faciilty standards and installing new features to enhance security at the site.

The Pipeline Structures Rehabilitation project was completed in November 2018. The Asset Management Program identified 15 access structures on the Second Aqueduct Pipelines 3, 4, and 5 with advanced corrosion on piping and valves. This project rehabilitated the distressed structures by applying corrosion inhibiting products to delay the need for component replacement by approximately 20 years.

The Moosa Canyon Erosion Control project was completed in January 2019. Due to heavy rains and erosion, Pipelines 3, 4, and 5 in the Moosa Creek area were at risk of exposure which could lead to failure. Long-term erosion control measures to protect the three pipelines from being exposed were installed, including placing engineered, grouted and non-grouted riprap in the creek channel.

OTHER

The Water Authority continues to look for innovative and pioneering ways to manage the CIP. To that end, development of an Integrated Project Controls Management System was completed at the end of Fiscal Year 2019. This project included developing an integrated reporting tool that provides real-time project management data to project managers and supervisors to help ensure a high level of project and program success. The automation of data collection and reporting from the systems of record (e.g. Primavera, PeopleSoft, Access, and Excel) alleviates the previous requirement of manual data collection for reporting purposes. The automated tool quickly identifies deviations from preapproved metric thresholds and proactively notifies project stakeholders so that an action plan to correct and mitigate any issues can be developed. This tool was developed using in-house staff which provided considerable cost savings as compared to estimates received from outside vendors.

Focus of the Adopted CIP Budget

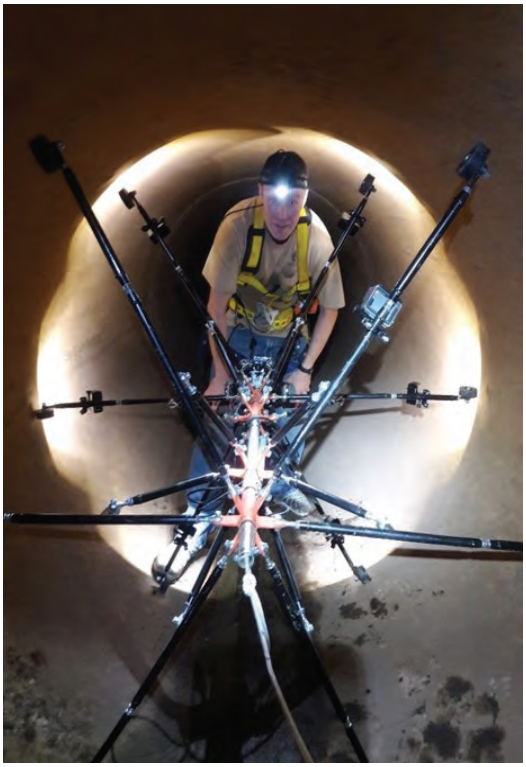
The adopted CIP Budget is built upon the Water Authority's Business Plan, shifting the focus of the CIP from the construction of new infrastructure to repair, replacement, or rehabilitation of the existing system through the Asset Management Program and modification of the Water Authority's infrastructure to optimize system operation. These modifications began with projects identified in the 2013 Master Plan Update and include system isolation valves and a system vulnerability assessment, both of which were completed during the past two-year period. Opportunities to optimize the system will be evaluated further in the next Master Plan Update that is scheduled to begin following the completion of the 2020 Urban Water Management Plan,

ASSET MANAGEMENT

Nationally there is a growing emphasis on aging infrastructure and the need for infrastructure repair. Each year the American Water Works Association (AWWA) releases a state of the Water Industry report based on responses to an annual survey of industry professionals. The survey provides an industry-wide self-assessment and gathers information to support the water community's major challenges. The 2018 report identified renewal and replacement of aging water infrastructure as the number one issue for the fourth year in a row. The Water Authority has had a long history of being proactive in infrastructure inspection and repair starting 35 years ago by pioneering the first pipeline relining project. Ten years later the Water Authority Board of Directors established a visionary program for inspection and pipeline management. Since then the Water Authority has become a national leader in asset management by utilizing the latest technology for pipeline inspections and methods for risk assessment. In 2017 the program was recognized by the AWWA for leading business practices in asset management, and by Government Technology and the AT&T Special Districts Program for pipeline risk visualization. The Water Authority constantly scrutinizes its methodology through industry-specific peer review at an international level, and by self-monitoring its progress through its 5-year Scorecard evaluation. This ensures key areas of asset management are resourced, managed, and continually evaluated at an appropriate level. Over the past three decades, the program has completed over 45-miles of pipeline rehabilitation, the scanning and evaluation of over 120-miles of pipelines, and visually inspected all 310-miles of pipelines in the system.

Aging infrastructure can result in several negative impacts to the Water Authority's mission, including:

- Loss of service to our Member Agency customers and direct, localized failure of a pipeline or facility resulting in possible environmental and physical damage.
- Continued aging without a plan for extension of useful life, going beyond the limit of sustainability such that rehabilitation cannot be performed at a rate sufficient to keep up with reduction of useful life.



Pipeline inspection

In order to mitigate these risks, the Asset Management Program is driven by the following best management practices:

- Implementation of a five-year rolling Condition Assessment Plan, ensuring the Water Authority focuses on obtaining comprehensive condition data on a routine basis to assist in the continued evaluation of useful life.
- Thorough risk assessment, assessing the probability of failure together with potential consequences of failure to identify high-risk areas.
- Prioritization, identifying projects that will repair, replace, or rehabilitate aging assets at the right time, prior to each two-year budget period.

Asset Management is comprised of several projects, the largest of which are Infrastructure Rehabilitation and the Relining and Pipe Replacement Program. Not only is risk considered, but asset repair, replacement, and rehabilitation projects are also defined and prioritized considering available resources, economic factors, customer rate and delivery impacts, timing and other issues. The projects highlighted on the Infrastructure Rehabilitation and the Relining and Pipe Replacement Program individual project sheets are the highest priority Asset Management projects for Fiscal Years 2020 and 2021.

Adopted CIP Budget

The CIP budget is presented in two parts: the capital improvement program level and the individual project level. The first level (Lifetime CIP Budget) is a discussion of the CIP program and the project budgets that span a decade or more into the future. This represents the inclusive, lifetime budget for the projects and the CIP program. The second level of the discussion (Two-year Adopted Appropriation for CIP) focuses on the adopted appropriation, or forecasted spending plan, for individual CIP projects in Fiscal Years 2020 and 2021. Key aspects of this discussion deal with profiling the two-year expenditures and changes to individual projects.

LIFETIME CIP BUDGET

The CIP program budget is the sum of all Board-adopted project budgets including new projects. In the previous two-year budget, there were 37 adopted projects with a value of $2.5 billion. Over the course of the last two fiscal years, 10 projects totaling $535.0 million were completed. Table 1 depicts the estimated savings of these completed projects. These savings will be utilized in remaining projects.

Upon removing these completed projects from the CIP and analyzing the Asset Management Program, the adopted CIP Lifetime Budget and projects going forward is $2.0 billion, a reduction of $0.5 billion from the previous two-year budget. The majority of future expenditures against this remaining budget balance will likely be Asset Management projects, including Infrastructure Rehabilitation and the Relining and Pipe Replacement Program, and system modification projects. Long term future projects, Pipeline 6, the Second Crossover Pipeline, and System Storage also represent a significant portion of this CIP. The future of these long-term projects will be evaluated in the update to the 2013 Master Plan which will start after completion of the 2020 Urban Water Management Plan.

The Asset Management Program continues to evolve, utilizing new technology to gather and analyze condition data, and forecast future rehabilitation and replacement needs. While developing the Fiscal Years 2020 and 2021 adopted budget, the asset management needs were re-assessed based on the latest data and risks.

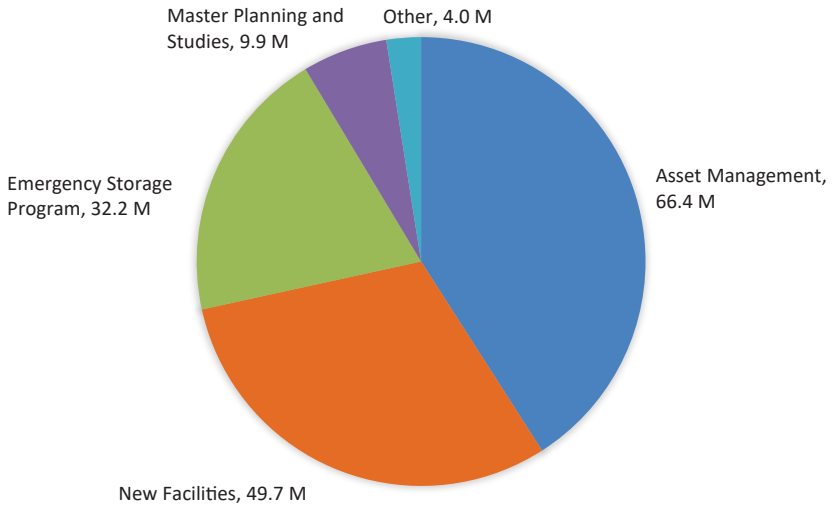
Table 1: Completed CIP Projects ($ Thousands)

	Lifetime CIP Budget	Estimated Lifetime Costs	Savings
Nob Hill Improvements	$ 16,178	$ 16,178	$ -
ESP - Planning & Support Services	101,446	100,857	589
ESP - San Vicente Dam Raise and Carryover Storage	396,144	387,796	8,348
ESP - Operations Center Upgrade	2,176	899	1,277
Camp Pendleton Desalination	8,686	5,409	3,277
Miramar Pump Station Rehabilitation	7,870	7,870	-
Twin Oaks Valley WTP Expanded Service Area	7,430	7,414	16
Integrated Project Controls Management System	250	20	230
Line Structure & Access Improvements	2,854	2,581	273
Water System Security	5,949	5,949	-
TOTAL COMPLETED PROJECTS	**$ 548,983**	**$ 534,974**	**$ 14,009**

Two-Year Adopted Appropriation for CIP

The adopted appropriation for Fiscal Years 2020 and 2021 is $162.2 million and represents the forecasted spending during the upcoming budget period based upon the current status of CIP projects. Figure 2 illustrates the breakdown of the adopted appropriation by project type. Highlights of the Water Authority's focus for the upcoming two-year budget period include the following:

Figure 2: Two-Year Adopted Appropriation for CIP by Project Category



ASSET MANAGEMENT

Over the next two years, staff will focus on completing the highest priority projects. Staff will also be completing designs on other Asset Management projects, so they can be "shovel ready" for construction in the next budget cycle. In case there should be cost savings from a down turn in the construction market and funds are remaining in the two-year appropriation, the Board could also consider accelerating one or more of these "shovel ready" projects, if desired. As part of the Asset Management Program, staff will also be conducting enhanced facility assessments taking into consideration system hydraulics and local building codes (e.g. changes in the seismic code). After collecting the necessary data, staff will update project cost estimates and prioritize the projects, ensuring we are working on the most critical facilities to ensure a safe and reliable water supply for the region. This will allow us to update our long-term Asset Management Plan in preparation for the Fiscal Years 2022 and 2023 and beyond budgets.

MITIGATION PROGRAM

The Mitigation Program was established by the Board in September 1992 to provide coordinated permitting and mitigation for environmental impacts resulting from the construction, operation, and maintenance of CIP projects. The Mitigation Program's scope is to pursue comprehensive long-term endangered species and wetland permits, as well as mitigation for impacts to endangered species, wetland resources, and other sensitive habitats. This is accomplished by negotiating and implementing long-term multi- species Endangered Species Act take permits with state and federal wildlife agencies; programmatic wetlands permits with state and federal regulatory agencies implementing the Clean Water Act and Porter- Cologne Water Quality Control Act; acquiring mitigation properties or credits for CIP projects and operation and maintenance activities; constructing wetland mitigation projects; and developing agreements with permitting agencies governing use of mitigation credits on Water Authority properties.

APPROVED MASTER PLAN PROJECTS

As part of the 2013 Regional Water Facilities Optimization and Master Plan Update, the Water Authority conducted a comprehensive evaluation of future infrastructure needs based on a plausible range of projected supplies and demands through 2035. With a focus on maximizing previous infrastructure investments, the Master Plan Update included projects for near-term implementation. Projects completed over the previous two-year period included a facility planning study for the addition of system isolation valves for more efficient operation of the aqueduct system and a structural assessment of existing infrastructure. Over the next two years, staff will complete other projects to provide operational storage for the aqueduct system and will also develop a scope of work to guide the development of an update to the 2013 Master Plan. This scope of work will be based on the revised demand forecast evaluated in the 2020 Urban Water Management Plan and will focus on system optimization considering lower flow projections, infrastructure improvements to provide operational flexibility, and an energy management analysis.

CIP Project Budget Changes

Several new projects have been added to the CIP and other projects require budget increases. These lifetime project budget increases are mainly due to scope changes and escalation of construction costs over the last two years which was a key issue that shaped the Fiscal Year 2020 and 2021 CIP budget. The construction market continues to be very strong in our region, Southern California, and the entire country. There are many agencies within the Southern California region currently constructing large projects at the same time as ours which is leading to fewer bidders and less competitive bids. Material prices are also increasing, impacting capital projects. There is also greater competition in the labor market for skilled workers, engineers, and others commonly employed by the construction industry. A natural byproduct of this increased competition and scarcity of labor is escalating wages. Because of all these factors, the Water Authority has received construction bids higher than the engineer's estimate over the past year. These higher overall construction costs have put upward pressure on the project budgets. Taking this into consideration, construction cost estimates for projects in the Fiscal Year 2020 and 2021 CIP budget were updated to incorporate the conditions currently being observed in the market. This, combined with revisions to project scopes of work, has resulted in adjustments to the lifetime budgets for several projects. The following is a summary of the changes made to the CIP:

Desal Pipeline Inspection

NEW PROJECTS

- Line Road Improvements
  - This project will provide line road improvements to culverts, gates, and line road sections. Such improvements are required to ensure access is maintained for performance of aqueduct maintenance functions and right-of-way patrol activities. The adopted budget for this project is $388,000.
- Operations and Maintenance Department Facility
  - The currentand future space needs of the Operations and Maintenance Department (O&M) and the existing O&M Facility in Escondido are being studied to evaluate O&M's space need requirements, deficiencies or gaps with the existing facility and options to help ensure the long-term sustainability of O&M's work functions. This project will provide funding to continue the evaluation, develop a master plan and to develop/implement options inclusive of potential purchase of an existing building or land to meet O&M's space needs into the future. The adopted budget for this project is $10,000,000.
- ESP - Owner Controlled Insurance Program Closeout
  - This project provides support services for the Owner Controlled Insurance Program (OCIP) of the Emergency and Carryover Storage Projects which commenced in April 1999 and ended in March 2015 with the completion of the San Vicente Marina Facilities project. The OCIP was originally purchased for the period of 1999 until 2009 (OCIP I). Due to extended construction work on the ESP beyond 2009, the OCIP end date was moved to 2015 and OCIP II (2009-2015) was created. Both OCIP insurance policy periods included a ten-year tail coverage for Products/Completed Operations for general liability/bodily injury claims. During Fiscal Years 2016 and 2017, staff negotiated a buy-out transferring OCIP I to the insurance carrier. The adopted budget for this project is $76,000 and is needed to manage the OCIP II tail coverage, which expires in December 2024.
- Second Aqueduct Diversion Complex and Operation Study
  - As part of the 2013 Master Plan Update, staff completed a system vulnerability assessment that provided a high-level review of structural and seismic risks associated with the aqueduct system. The study identified several structures around a key section of the Second Aqueduct that required rehabilitation and/or replacement in the near-term. This project will identify alternatives to address the structural and seismic risks as well as evaluate operational improvements that can be accomplished by modifying the infrastructure in this area. Implementation of the adopted projects would be incorporated in a subsequent two-year budget period. The total budget requested for this new study is $633,319.

- Master Plan Update (RFP)
  - This project represents initiation of an update to the 2013 Regional Water Facilities Optimization and Master Plan Update. After the revised demand forecast is finalized for the 2020 Urban Water Management Plan, staff will develop a scope of work to guide the Master Plan Update in response to the anticipated lower demand forecast. Staff will then solicit consultant support for the Master Plan via a Request for Proposal process. The budget requested to develop a scope of work and Request for Proposals is $52,304. The full budget to complete the Master Plan Update will be requested as part of the General Manager's Recommended Multi-Year Budget for Fiscal Years 2022 and 2023.
- Regional Conveyance System Study
  - As part of the 2003 Quantification Settlement Agreement (QSA), the Water Authority has rights to up to 280,000 acre-feet of Colorado River supplies that are currently delivered to the Water Authority service area via an Exchange Agreement with Metropolitan Water District of Southern California. The Water Authority evaluated an alternative conveyance option for delivery of QSA supplies directly from the Imperial Valley to the San Diego region via a new pipeline, as part of past studies and in conjunction with Regional Water Facilities Optimization and Master Plan efforts. This new study will build upon previous work to further evaluate the technical and economic feasibility of a regional conveyance system. The total budget requested for this new study is $3,900,000 and includes two Phases, A and B. Once Phase A is complete, Board approval will be required to proceed to Phase B.

INCREASES AND DECREASES TO EXISTING PROJECTS

- Communications System at San Vicente Pump Station
  - This project was created in 2016 to replace the foundation field bus communication protocol at the San Vicente Pump Station. The hardware had become obsolete and is not supported any longer by the manufacturer. Staff developed a replacement program to install standard communication hardware. During the conversion, it was determined that valve actuator modification kits would be required to complete the project. This was not accounted for during the development of the original scope of work and budget development. The adopted budget increase for this project is $100,000 which will cover the kits, programming and integration, and staff labor.

- Infrastructure Rehabilitation
  - In 2009, the Asset Management Program consolidated a number of capital projects into one program called Infrastructure Rehabilitation. The focus of this program is to prioritize rehabilitation, repair or replacement of assets based on risk (consequence of failure and probability of failure). The program has identified aging assets including flow control facilities, valves, meters, and pipeline structures requiring rehabilitation, repair, replacement or demolition. Fiscal Years 2020 and 2021 will see work commence or continue on 22 Infrastructure Rehabilitation projects; inclusive of 4 pipeline projects, and 18 facility assessment, repair, or replacement projects. As a result of a new project, refinements in scope of work on other projects, and to accommodate escalating construction costs, the existing Infrastructure Rehabilitation lifetime budget was reallocated to fund existing projects. In order to fund near-term projects being worked on in Fiscal Years 2020 and 2021, a budget increase of $46,146,793 is required. During the next two years, staff will update future Infrastructure Rehabilitation project needs and cost estimates in preparation for additional budget increase requests in the General Manager's Recommended Multi-year Budget for Fiscal Years 2022 and 2023, and beyond.

Pipeline Structure Rehab Before

Pipeline Structure Rehab After

- Carlsbad Desalination Project
  - Beyond the Carlsbad Desalination Plant itself, this effort includes new facilities and improvements that combine to deliver desalinated water to the Water Authority. Commercial operations began December 2015 and most of the segments funded in this project are complete. The remaining efforts in this project include funds to support the Water Authority's role in financing, design and construction of the intake and discharge modifications due to closure of the existing Encina Power Station, and for compliance with recently adopted desalination intake and discharge regulations. These regulations have delayed acquisition of necessary permits and require the intake and discharge facility modifications project to be implemented in three phases. The final phase of infrastructure improvements to fully comply with the new regulations are anticipated to be completed in 2024. A budget increase of $930,971 is needed to support the legal, financial, engineering and contract administration services required for each phase of the project.

- Hauck Mesa Storage Reservoir
  - This project will construct a 2.1 million-gallon treated water storage reservoir along the Water Authority's Valley Center Pipeline at a site purchased from the Valley Center Municipal Water District. The new tank will meet regional needs by regulating flows on the Valley Center Pipeline to the First Aqueduct. The project will also offer additional aqueduct reliability and transient protection due to power losses or other flow interruptions at the Valley Center Pump Station. A budget increase of $10,115,615 is needed to accommodate escalation of construction costs and increases in project scope (including a larger reservoir to accommodate hydraulic design issues, mitigation of contaminated soils, and on-site drainage improvements).
- ESP – North County Pump Station
  - This project represents the final phase of the ESP serving portions of Fallbrook, Rainbow, Valley Center, and Yuima in its entirety. The original budget anticipated the facilities would be built during an earlier ESP phase. A budget adjustment is needed to account for escalation in construction costs and updated scope, incorporating terms set forth in the principles of understanding with each affected member agency. The total adopted budget increase to this project is $8,837,790.
- ESP – Post Construction Activities
  - This project consolidates the post-construction phases of multiple Emergency Storage Projects. It was established to allow the individual project budgets to be closed and capitalized following construction, while allowing close-out activities to be completed. A budget increase of $1,000,000 is needed to accommodate remaining close-out activities related to the San Vicente Dam Raise and Carryover Storage project. Funds for this increase will be made available from the surplus lifetime budget as part of the closeout of the San Vicente Dam Raise and Carryover Storage project.
- System Vulnerability Assessment
  - This project supports a key facility planning effort that was recommended for further evaluation in the 2013 Regional Water Facilities Optimization and Master Plan Update. This concern involves the vulnerability of key Water Authority transmission pipelines and support structures to natural and man-made catastrophic events. A budget increase of $1,295,418 is needed to complete a seismic vulnerability evaluation of transmission pipelines and update repair time estimates that were originally completed in 1993 for the planning of the Emergency Storage Project. The study will evaluate the condition of existing pipelines under the current seismic standards and practices and identify areas of concerns and possible upgrades necessary to continue maintaining system reliability.

- Mission Trails Flow Regulatory Structure (FRS)II/Lake Murray Control Valve
  - The Mission Trails Flow Regulatory Structure (FRS)II/Lake Murray Control Valve Project is the consolidation of two CIP projects as a result of continued evaluation performed in the 2013 Regional Water Facilities Optimization and Master Plan Update. The combined project places the existing Mission Trails Pipeline Tunnel in service to meet future untreated water demands for the central and south county service areas, and to relieve existing operational risks. The budgeted project consists of a buried reinforced concrete storage reservoir and appurtenant pipeline facilities, a new flow control facility, and removal of existing vents in Mission Trails Regional Park. A budget adjustment is needed to account for escalation in construction costs resulting in an overall project budget increase of $1,656,211.
- San Vicente Energy Storage Facility Study
  - The Water Authority and City of San Diego are partners on the San Vicente Energy Storage Facility Study, which is in the planning phase. The proposed project would provide up to 500 megawatts of "on call" hydroelectric capacity for the region. The facility would provide up to 4,000 megawatt-hours per day of energy. The facility could be used to improve system reliability by storing excess renewable generation for later use when renewables are off-line, for example, during early evening peak demands after sunset. The infrastructure for the facility includes the expanded San Vicente Reservoir (lower reservoir), one of four proposed upper reservoir alternatives, conveyance tunnels/shafts, powerhouse and pump station, and electric transmission lines. In January 2017, a request for letters of interest process was conducted. Staff and Energy Task Force members interviewed 18 firms; concluding that there is a strong interest in the proposed project and that it would provide potential revenue for both the Water Authority and City of San Diego. In July 2017, staff issued requests for proposals from full service teams to potentially implement the project. A selection panel comprised of Water Authority and City staff, members of the San Vicente Energy Storage Task Force, and the Owners' representative interviewed a shortlist of proposers. In December 2017, the Board authorized staff to negotiate with the two Full Service Team finalists. During 2018, staff negotiated with both finalists. In October 2018, the Federal Energy Regulatory Commission (FERC) approved a new four-year preliminary permit with the option to extend the permit for an additional four years. In November 2018, a term sheet was signed with a private developer, which will be used as the basis for negotiations on a future Project Development Agreement (PDA). A budget increase of $3,680,685 is needed to fund on-going legislative and regulatory support and negotiating a project development agreement with a private developer.
- Mitigation Program
  - The Mitigation Program provides comprehensive mitigation for Water Authority programs, projects, and actions resulting from compliance with state and federal endangered species and wetland regulations. A budget increase of $1,237,328 is needed to complete design, acquire permits and commence construction of the

proposed San Luis Rey River Habitat Restoration Project which will establish approximately three acres of sensitive habitat. The habitat will be used as mitigation credits for future CIP projects and operations and maintenance actions needed to comply with state and federal endangered species and wetland regulations.

- East County Regional Treated Water Improvements Program
  - The East County Regional Treated Water Improvements is a joint program of the Water Authority and several member agencies to improve the use of the Helix Water District's Levy Water Treatment Plant. This implements the concept developed in the 2003 Regional Water Master Plan of meeting some treated water demand through improved use of member agency plants. The final remaining project in this program is the Padre Dam 7 Flow Control Facility. This project is being led by the Padre Dam Municipal Water District and construction has taken longer than expected. A budget increase of $49,235 is needed to support the completion of construction, start-up, and testing of the Padre Dam 7 Flow Control Facility. This project is 100% reimbursable by Padre Dam Municipal Water District.

Table 2: Adopted Budget Changes by Project

Adopted New Projects	**Net Change to Lifetime Budget ($ Thousands)**
Line Road Improvements	$ 388
Operations and Maintenance Department Facility	10,000
ESP Owner Conrolled Insurance Program Closeout	76
Second Aqueduct Diversion Complex and Operations Study	633
Master Plan Update (RFP)	52
Regional Conveyance System Study	3,900
Subtotal	**$ 15,049**
Adopted Changes to Existing Projects	
Communication System at San Vicente Pump Station	$ 100
Infrastructure Rehabilitation	46,147
Carlsbad Desalination Project	931
Hauck Mesa Storage Reservoir	10,116
ESP - North County Pump Station	8,838
ESP - Post Construction Activities	1,000
System Vulnerability Assessment	1,295
Mission Trails Flow Regulatory Structure (FRS) II/Lake Murray Control Valve	1,656
San Vicente Energy Storage Facility Study	3,681
Mitigation Program	1,237
East County Regional Treated Water Improvements Program	49
Subtotal	**$ 75,050**
TOTAL CHANGES TO NEW/EXISTING PROJECTS	**$ 90,100**
Completed CIP Projects	
Nob Hill Improvements	-
ESP - Planning & Support Services	(589)
ESP - San Vicente Dam Raise and Carryover Storage	(8,348)
ESP - Operations Center Upgrade	(1,277)
Camp Pendleton Desalination	(3,277)
Miramar Pump Station Rehabilitation	-
Twin Oaks Valley WTP Expanded Service Area	(16)
Integrated Project Controls Management System	(230)
Line Structure & Access Improvements	(273)
Water System Security	-
Subtotal	**$ (14,009)**
TOTAL LIFETIME INCREASE	**$ 76,090**

Table 3: CIP Project Summary Table ($ Thousands)

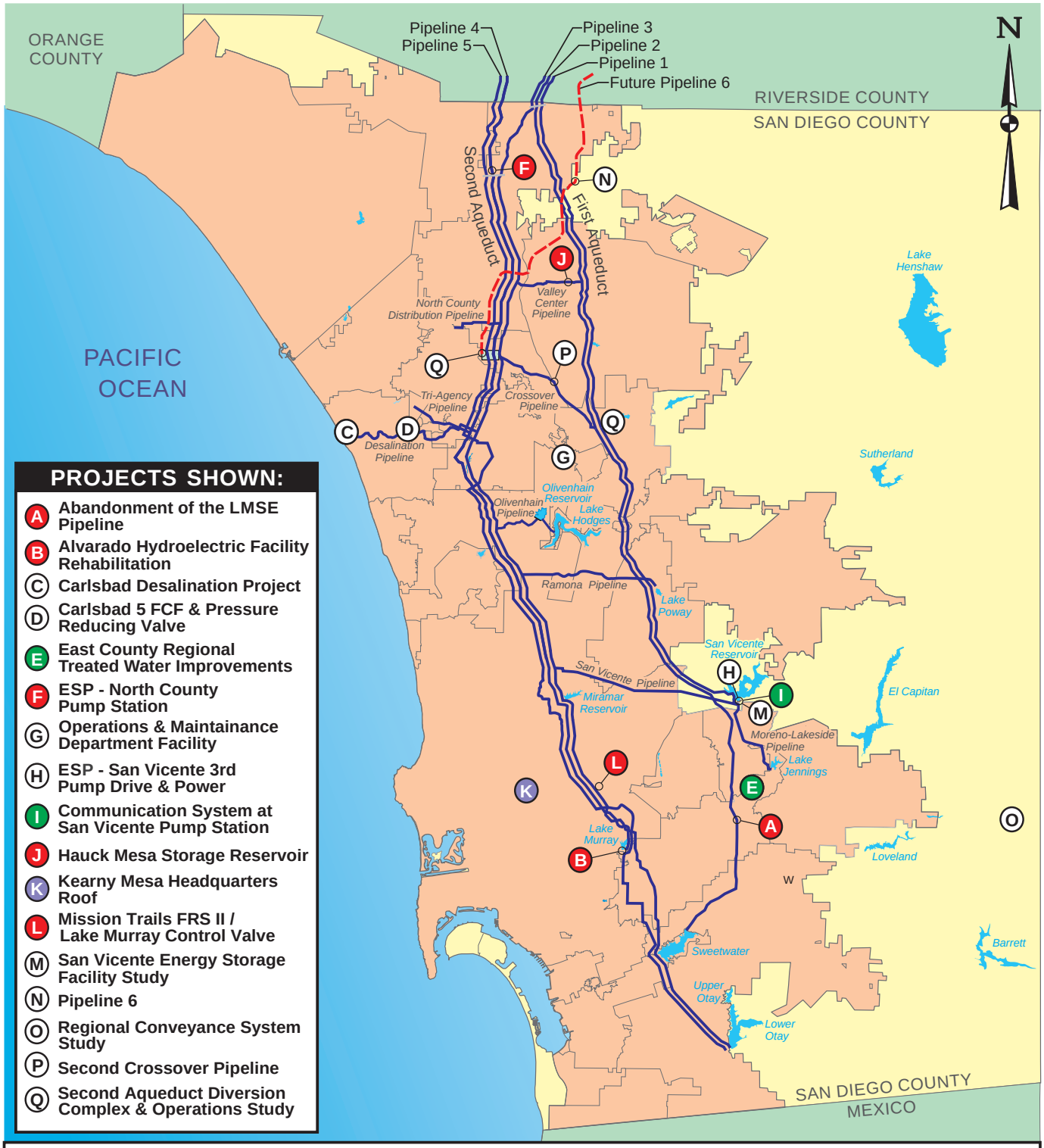
The project summary table of the budget provides a programmatic and project level summary of the CIP.

Rate Category	Project Name	Amended LTD FYs 18&19 Budget	Adopted FYs 20&21 Budget	Budget Variance	Reimbursable Lifetime Cost
Asset Management					
T	Abandonment of the LMSE to Sweetwater	$ 4,180	$ 4,180	$ -	$ -
CS	Additional Aqueduct Right of Way Width	5,787	5,787	-	-
CS	Alvarado Hydroelectric Facility Rehabilitation	8,425	8,425	-	-
CS	Communication System at San Vicente Pump Station	208	308	100	-
CS/T	Infrastructure Rehabilitation	203,718	249,865	46,147	-
CS	Line Road Improvements	-	388	388	-
T	Relining and Pipe Replacement Program	492,985	492,985	-	-
Subtotal Asset Management		**$ 715,304**	**$ 761,939**	**$ 46,635**	**$ -**
New Facilities					
CS	Aqueduct Communication System	4,337	4,337	-	-
CS/T	Carlsbad Desalination Project	77,408	78,339	931	8,054
T	Carlsbad 5 FCF and Pressure Reducing Valve	1,014	1,014	-	1,014
SUP	Colorado River Canal Linings and Water Transfer Mitigation	28,125	28,125	-	-
T	Hauck Mesa Storage Reservoir	15,800	25,916	10,116	-
T	Mission Trails Flow Regulatory Structure (FRS) II/Lake Murray Control Valve	40,794	42,450	1,656	-
CS	Operations and Maintenance Department Facility	-	10,000	10,000	-
Subtotal New Facilities		**$ 167,478**	**$ 190,181**	**$ 22,703**	**$ 9,068**
Emergency Storage Program					
S	ESP - North County Pump Stations	31,062	39,900	8,838	-
S	ESP - Post Construction Activities	47,765	48,765	1,000	-
S	ESP Owner Controlled Insurance Program Closeout	-	76	76	-
Subtotal Emergency Storage Program		**$ 78,828**	**$ 88,741**	**$ 9,914**	**$ -**
Master Planning and Studies					
S	ESP - San Vicente 3rd Pump Drive & Power	8,044	8,044	-	-
CS	Inline Hydroelectric Energy Generation Facilities	521	521	-	-
CS	Master Plan Update (RFP)	-	52	52	-
T	Pipeline 3/Pipeline 4 Conversion	1,014	1,014	-	-
CS	Regional Conveyance System Study	-	3,900	3,900	-
CS	San Vicente Energy Storage Facility Study	7,013	10,693	3,681	2,521
CS	Second Aqueduct Diversion Complex and Operations Study	-	633	633	-
T	System Isolation Valves	522	522	-	-
CS	System Vulnerability Assessment	475	1,770	1,295	-
Subtotal Master Planning and Studies		**$ 17,588**	**$ 27,150**	**$ 9,562**	**$ 2,521**
Other					
CS/T/WTP	East County Regional Treated Water Improvements Program	29,046	29,095	49	4,735
CS	Kearny Mesa Headquarters Roof	888	888	-	-
T	Mitigation Program	33,806	35,043	1,237	-
T	Post-Construction Mitigation Management	5,359	5,359	-	-
CS	Water Billing and Information Management System	1,358	1,358	-	-
Subtotal Other		**$ 70,457**	**$ 71,743**	**$ 1,287**	**$ 4,735**
Grand Total Active Projects		**$ 1,049,655**	**$ 1,139,754**	**$ 90,100**	**$ 16,324**
Long Range Forecast Projects					
T	Pipeline 6	443,211	443,211	-	-
T	Second Crossover Pipeline	371,041	371,041	-	-
T	System Storage	39,619	39,619	-	-
Subtotal Long Range Forecast Projects		**$ 853,871**	**$ 853,871**	**$ -**	**$ -**
Grand Total All Projects		**$ 1,903,525**	**$ 1,993,625**	**$ 90,100**	**$ 16,324**
Completed Projects as of FY 19					
CS	Camp Pendleton Desalination	8,686	5,409	(3,277)	1,400
S	ESP - Operations Center Upgrade	2,176	899	(1,277)	-
S	ESP - Planning & Support Services	101,446	100,857	(589)	-
S	ESP - San Vicente Dam Raise and Carryover Storage	396,144	387,796	(8,348)	-
CS	Integrated Project Controls Management System	250	20	(230)	-
CS	Line Structure & Access Improvements	2,854	2,581	(273)	-
CS	Miramar Pump Station Rehabilitation	7,870	7,870	-	397
T	Nob Hill Improvements	16,178	16,178	-	-
T	Twin Oaks Valley WTP Expanded Service Area	7,430	7,414	(15)	-
CS	Water System Security	5,949	5,949	-	-
Total Completed Projects		**$ 548,983**	**$ 534,974**	**$ (14,009)**	**$ 1,797**

Note: Rate Category Codes are as follows: (1) CS: Customer Service (2) S: Storage (3) SUP: Supply (4) T: Transportation (5) WTP: Treatment
Totals may not foot due to rounding.

	Water Authority Cost	LTD Expenditures through 6/30/2018	FY 19 Estimated	FY 20 Projection	FY 21 Projection	FY 22 Projection	FY 23 Projection	FY 24 Projection	Beyond FY 25 Projection	Total (LTD & Projections)
	$ 4,180	$ 124	$ 8	$ -	$ -	$ -	$ 587	$ 418	$ 3,043	$ 4,180
	5,787	4,897	21	43	43	192	-	-	590	5,787
	8,425	895	207	2,989	185	2,792	947	137	275	8,425
	308	54	154	75	-	-	-	-	25	308
	249,865	64,415	25,436	46,960	12,378	16,862	23,901	15,517	44,394	249,865
	388	-	-	164	163	-	-	-	61	388
	492,985	310,365	29,874	387	3,022	1,722	6,258	22,790	118,567	492,985
	$ 761,938	**$ 380,750**	**$ 55,699**	**$ 50,618**	**$ 15,791**	**$ 21,568**	**$ 31,694**	**$ 38,862**	**$ 166,957**	**$ 761,939**
	4,337	5	54	47	-	20	-	-	4,212	4,337
	70,285	75,252	455	690	624	1,117	-	-	200	78,339
	-	297	20	189	465	-	-	-	42	1,014
	28,125	14,632	1,329	1,867	1,891	3,101	3,317	1,500	489	28,125
	25,916	1,750	573	214	11,323	9,968	-	280	1,807	25,916
	42,450	6,949	1,173	6,139	20,243	982	8	237	6,719	42,450
	10,000	-	-	5,000	1,000	4,000	-	-	-	10,000
	$ 181,113	**$ 98,886**	**$ 3,603**	**$ 14,147**	**$ 35,546**	**$ 19,188**	**$ 3,325**	**$ 2,017**	**$ 13,468**	**$ 190,181**
	39,900	2,473	745	9,540	20,790	4,007	112	19	2,214	39,900
	48,765	39,079	441	894	909	149	1,550	163	5,581	48,765
	76	-	-	6	6	6	6	26	26	76
	$ 88,741	**$ 41,551**	**$ 1,187**	**$ 10,440**	**$ 21,704**	**$ 4,163**	**$ 1,667**	**$ 208**	**$ 7,821**	**$ 88,741**
	8,044	258	-	-	-	-	-	-	7,787	8,044
	521	200	-	242	-	-	-	-	78	521
	52	-	-	-	52	-	-	-	-	52
	1,014	-	-	-	-	-	-	-	1,014	1,014
	3,900	-	-	1,600	2,300	-	-	-	-	3,900
	8,172	4,566	1,338	1,990	1,883	-	-	-	916	10,693
	633	-	-	298	335	-	-	-	-	633
	522	221	1	-	-	-	245	-	54	522
	1,770	408	24	377	866	-	-	-	96	1,770
	$ 24,628	**$ 5,652**	**$ 1,364**	**$ 4,508**	**$ 5,437**	**$ -**	**$ 245**	**$ -**	**$ 9,945**	**$ 27,150**
	24,361	28,958	78	40	20	-	-	-	-	29,095
	888	165	556	3	-	-	-	-	164	888
	35,043	20,553	382	608	2,483	4,684	2,194	845	3,294	35,043
	5,359	2,513	155	222	83	106	138	102	2,040	5,359
	1,358	109	436	574	-	-	-	-	239	1,358
	$ 67,008	**$ 52,298**	**$ 1,607**	**$ 1,447**	**$ 2,585**	**$ 4,791**	**$ 2,332**	**$ 948**	**$ 5,736**	**$ 71,743**
	$ 1,123,428	**$ 579,138**	**$ 63,460**	**$ 81,159**	**$ 81,063**	**$ 49,710**	**$ 39,263**	**$ 42,034**	**$ 203,926**	**$ 1,139,754**
	443,211	5,839	-	-	-	-	-	-	437,372	443,211
	371,041	1	-	-	-	-	-	-	371,040	371,041
	39,619	103	-	-	-	-	-	-	39,516	39,619
	$ 853,871	**$ 5,942**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 847,928**	**$ 853,871**
	$ 1,977,299	**$ 585,080**	**$ 63,460**	**$ 81,159**	**$ 81,063**	**$ 49,710**	**$ 39,263**	**$ 42,034**	**$ 1,051,855**	**$ 1,993,625**
	4,009	5,406	3	-	-	-	-	-	-	5,409
	899	899	-	-	-	-	-	-	-	899
	100,857	100,843	14	-	-	-	-	-	-	100,857
	387,796	386,773	1,023	-	-	-	-	-	-	387,796
	20	20	-	-	-	-	-	-	-	20
	2,581	2,248	333	-	-	-	-	-	-	2,581
	7,473	7,631	239	-	-	-	-	-	-	7,870
	16,178	16,178	-	-	-	-	-	-	-	16,178
	7,414	7,141	274	-	-	-	-	-	-	7,414
	5,949	5,437	512	-	-	-	-	-	-	5,949
	$ 533,176	**$ 532,576**	**$ 2,398**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 534,974**

Figure 3: CIP Location Map



W:\GRAPHICS \ GRAPHICS SAMPLES \ MAPS - AGENCY, CIP, COUNTY, PIPELINE / CIP Location Map 4-2019.pdf

Individual Project Sheets follow in alphabetical order by project name. They summarize the project scope, status, and planned work for Fiscal Years 2020 and 2021.

Abandonment of the LMSE Pipeline – B0400

Project Category: Asset Management
Rate Category: Transportation

PROJECT DESCRIPTION

The existing La Mesa Sweetwater Extension Pipeline (LMSE) begins at the end of the First Aqueduct in Lakeside and extends 16.4 miles south to the Sweetwater Reservoir. The northern 4.4 miles of the pipeline is currently in operation to feed the Helix 1 Flow Control Facility, just south of the San Diego River, on the north side of State Route 67. The remaining 12 miles of LMSE is not needed and is no longer in service.

The abandonment of the existing LMSE involves filling the pipeline with cellular grout or concrete slurry. The existing above ground structures such as manways, blow-offs, combination air/vacuum valves, will be removed and surrounding surface areas restored. Existing pipe connections will be removed.

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

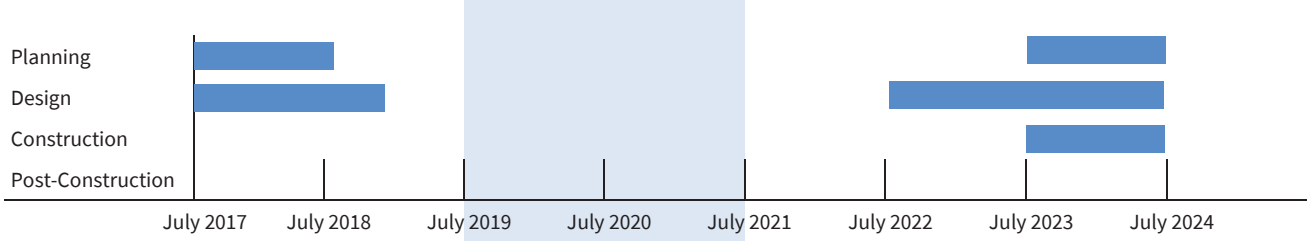
There are no operating impacts associated with this project. The Asset Management Program considers the southerly portion of LMSE a stranded asset with an unknown condition. Abandoning the pipeline will eliminate any potential risk associated with owning or maintaining the pipeline. The Right-of-Way Section also recommends abandoning the pipeline, thereby eliminating the costs for patrolling the pipeline right of way.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Project schedule has been adjusted due to prioritization of the CIP.

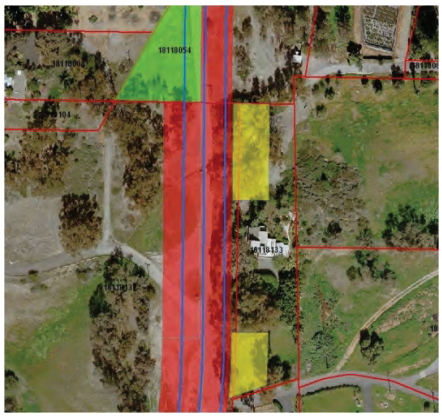
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	30	–	–	–	–	–	66	96
Design	94	8	–	–	–	587	768	1457
Construction	–	–	–	–	–	–	2,627	2,627
Post Construction	–	–	–	–	–	–	–	–
Totals	**124**	**8**	–	–	–	**587**	**3,461**	**4,180**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**124**	**8**	–	–	–	**587**	**3,461**	**4,180**



Additional Aqueduct Right of Way Width – N0340

Project Category: Asset Management
Rate Category: Customer Service



PROJECT DESCRIPTION

Along extended reaches of the Second Aqueduct, the Water Authority's right-of-way is too narrow. The purpose of this project is to widen the right-of-way to provide adequate width to maintain Water Authority Pipelines. This project is focused on areas of active development, areas that may have future development or where owners have listed their properties for sale. Currently the edge of the right of way may not be wide enough to support pipe replacement or major maintenance.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $86,617.

OPERATING IMPACTS

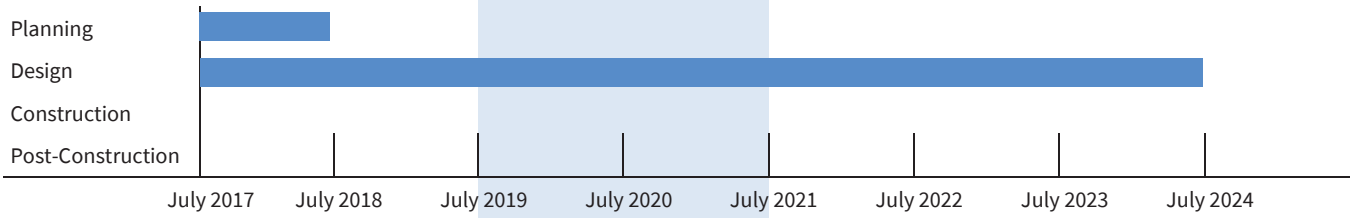
There are no additional operating costs associated with this project because these areas would be patrolled during regular patrols.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Additional right-of-way width work to be completed during the two fiscal years south of P2A will include evaluation of potential areas for acquisition and may include survey, appraisals, offers, and negotiations with property owners. Acquisitions for the properties north of P2A that were not concluded prior to this fiscal year are ongoing.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	4	–	–	–	–	–	–	4
Design	4,842	21	43	43	192	–	590	5,732
Construction	1	–	–	–	–	–	–	1
Post Construction	50	–	–	–	–	–	–	50
Totals	**4,897**	**21**	**43**	**43**	192	–	**590**	**5,732**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**4,897**	**21**	**43**	**43**	192	–	**590**	**5,787**



Alvarado Hydroelectric Rehabilitiation – J0350

Project Category: Asset Management
Rate Category: Customer Service

PROJECT DESCRIPTION

The Alvarado Hydroelectric Facility was built in 1984 adjacent to the San Diego 12 Flow Control Facility. The hydroelectric facility monetizes the potential energy in the water normally dissipated by valves at the flow control facility. Electrical generation was suspended in 2007 due to flood damage. The 2013 Regional Water Facilities Optimization and Master Plan Update identified the existing hydroelectric facility as potentially viable for producing power. Subsequent analyses performed by the Water Authority's Energy Program confirmed rehabilitating the hydroelectric facility is estimated to generate at least $550,000 in annual net revenue. The resulting payback period varies between 9 and 13 years based on the electrical rates and tariffs selected to monetize the energy.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,173,078.

OPERATING IMPACTS

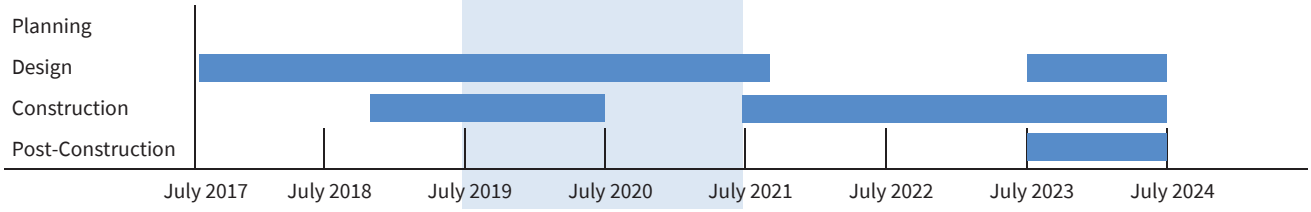
This project renews the service life of the existing facility, resulting in reduced long-term maintenance and operating costs. It also provides revenue to the Water Authority.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete design.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	895	159	26	185	3	–	10	1,277
Construction	–	48	2,963	–	2,789	947	190	6,936
Post Construction	–	–	–	–	–	–	212	212
Totals	**895**	**207**	**2,989**	**185**	**2,792**	**947**	**412**	**8,425**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**895**	**207**	**2,989**	**185**	**2,792**	**947**	**412**	**8,425**



Aqueduct Communication System – P0750

Project Category: New Facilities
Rate Category: Customer Service

PROJECT DESCRIPTION

This project will develop a communications master plan, which will provide a framework for expansion, and includes implementation of recommended improvements to the Water Authority's Aqueduct Control System (SCADA). The goal is to provide the Water Authority with ownership, and improved control, reliability and security of our communication network while lower operating costs associated with current alternative communication system links.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $47,000.

OPERATING IMPACTS

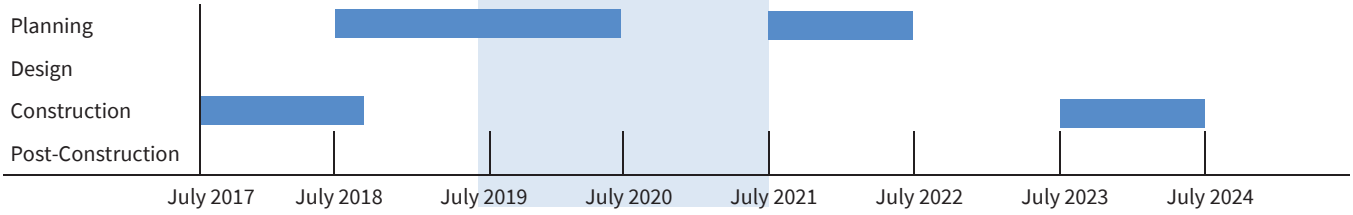
This project will improve control, reliability and security of the SCADA communication system.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The Fiscal Years 2020 and 2021 budget includes funds to complete the communications master plan.

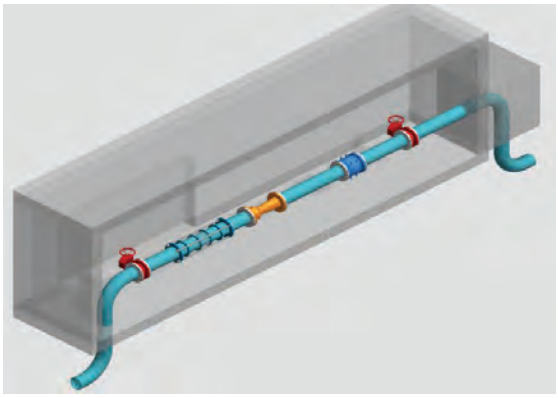
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	47	47	–	20	–	–	114
Design	–	–	–	–	–	–	–	–
Construction	5	7	–	–	–	–	4,212	4,223
Post Construction	–	–	–	–	–	–	–	–
Totals	5	54	47	–	**20**	–	4,212	**4,337**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	5	54	47	–	**20**	–	4,212	**4,337**



Carlsbad 5 Flow Control Facility and Pressure Reducing Valve – K0330

Project Category: New Facilities
Rate Category: Transportation



PROJECT DESCRIPTION

The Carlsbad 5 Flow Control Facility is a new facility that will provide Carlsbad Municipal Water District (CMWD) direct access to treated water from the Carlsbad Seawater Desalination Plant. CMWD has agreed to purchase 2,500 acre-feet per year of product water from the Carlsbad Desalination Conveyance Pipeline. A Pressure Reducing Vault (PRV) and facility will be designed downstream of the new Carlsbad 5 Flow Control Facility to ensure that the CMWD distribution system receives flows at a pressure that meets their needs. The PRV will be located in a below grade vault, approximately 100 feet downstream of the new Carlsbad 5 Flow Control Facility and will be owned and operated by CMWD.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $654,470. This project is fully reimbursable by the Carlsbad Municipal Water District. The current appropriation covers design only. Right of way acquisition, environmental reviews and permitting will be handed by Carlsbad. A separate construction and operations agreement will be negotiated to include all costs for the construction and post-construction phases.

OPERATING IMPACTS

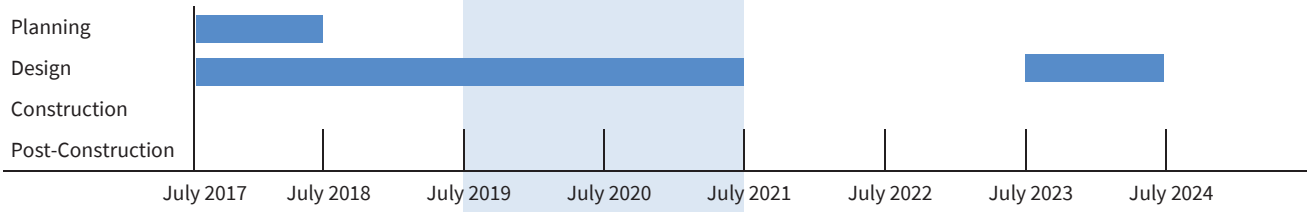
The operating impacts will include coordination of desalination plant operations and maintenance of new facilities required for the delivery of product water to the aqueduct system.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Perform design of Carlsbad 5 Flow Control Facility, Pressure Reducing Valve, inlet and outlet piping.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	239	–	–	–	–	–	–	239
Design	58	20	189	465	–	–	42	774
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**297**	**20**	**189**	**465**	–	–	42	**1,014**
Reimbursable	297	20	189	465	–	–	42	1,014
Net Cost	–	–	–	–	–	–	–	–



Carlsbad Desalination Project – K0300

Project Category: New Facilities
Rate Category: Customer Service/Transportation

PROJECT DESCRIPTION

This project includes all Water Authority obligations as provided for in the Water Purchase Agreement (WPA) with Poseidon Resources for implementation of the Carlsbad Desalination Project. The Water Authority's obligations include: (1) administration of the WPA and oversight of design, construction, startup and commissioning of the seawater desalination plant and intake modifications; (2) design review, construction oversight, startup and commissioning of the desalination conveyance pipeline; (3) design and construction of the relining of a five mile segment of the existing Pipeline 3 between San Marcos and the Twin Oaks Valley Water Treatment Plant; (4) design and construction of modifications to the existing Pipelines 3 and 4 vent structures in San Marcos; (5) oversight of the design and construction of modifications to the Twin Oaks Valley Water Treatment Plant and clearwells for delivery and distribution of desalination product water. In addition, this project includes oversight of the design and construction of improvements to the Vallecitos 9 FCF to facilitate direct delivery of desalinated water as part of that agency's purchase contract.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $1,314,471. This project has been partially reimbursed in the sum of $5,454,445 over its lifetime. Staff has also been awarded an additional $2,600,000 in reimbursement from the Proposition 50, Round 3 Water Desalination Grant Program; this award is pending agreement execution by the California Department of Water Resources.

OPERATING IMPACTS

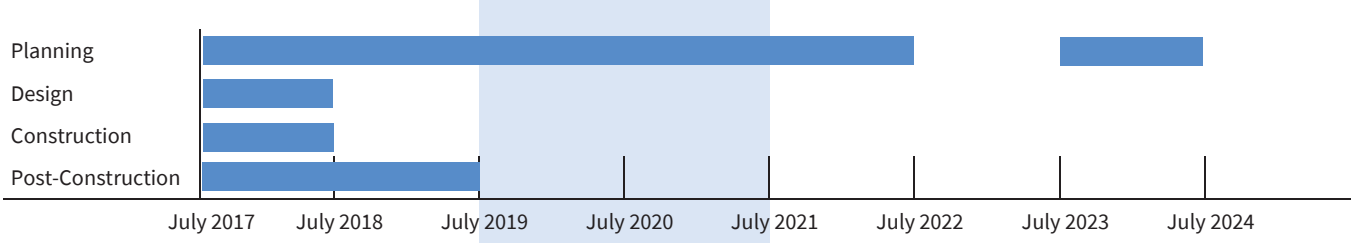
The operating impacts will include coordination of desalination plant operations/billing and maintenance of new facilities required for the delivery of product water to the aqueduct system.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Perform design reviews and construction oversight of the desalination plant intake modifications for the second operational phase required by the closure of the Encina Power Station, establish the Water Authority's cost obligations and desal water unit price impacts based on these modifications, and participate in Poseidon's intake screen pilot study to optimize the future permanent intake modification in compliance with the Ocean Plan Amendment.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	1,341	380	690	624	1,117	–	200	4,326
Design	5,873	–	–	–	–	–	–	5,873
Construction	67,150	–	–	–	–	–	–	67,150
Post Construction	915	75	–	–	–	–	–	990
Totals	**75,252**	**455**	**690**	**624**	**1,117**	**–**	**200**	**78,339**
Reimbursable	5,454				2,600	–	–	8,054
Net Cost	**69,798**	**455**	**690**	**624**	**–1,483**	**–**	200	**70,285**



Colorado River Canal Linings and Water Transfer Mitigation – I0400

Project Category: New Facilities
Rate Category: Supply

PROJECT DESCRIPTION

The Colorado River supplies include the water transfer with the Imperial Irrigation District and canal lining projects as a result of the 2003 Quantification Settlement Agreement. The Water Authority receives up to 200,000 acre-feet and approximately 80,000 acre-feet per year from IID conserved water transfer and canal linings, respectively.

The agreements for the canal lining projects and water transfer require that all environmental impacts are further defined and mitigated, including but not limited to, construction and long-term performance measurement of a 17-acre created marsh, maintenance and monitoring of 105 acres of Core Marsh, and restoration of 352 acres of Desert Riparian habitat. In most cases, mitigation measures are implemented by either Imperial Irrigation District or Coachella Valley Water District staff.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,757,718.

OPERATING IMPACTS

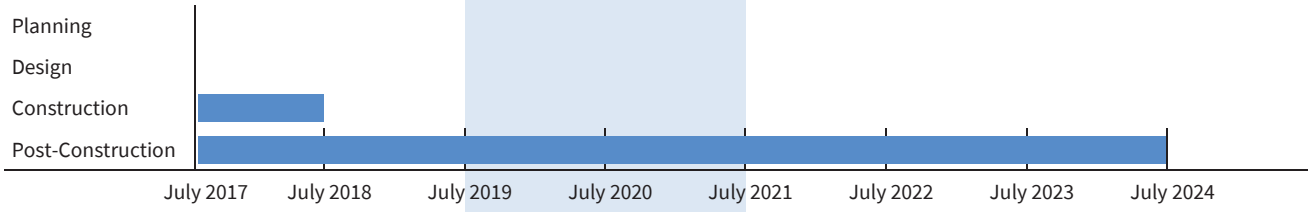
There are no additional operating impacts as a result of this project.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Water Authority staff will continue to support implementation of the required maintenance and monitoring of mitigation obligations for the canal linings projects and support mitigation associated with the water transfer. Focus for FY 2020 and 2021 will be to implement additional Desert Riparian Habitat to meet the required acreage.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	–	–	–	–	–	–	–	–
Construction	464	–	–	–	–	–	–	464
Post Construction	14,168	1,329	1,867	1,891	3,101	3,317	1,989	27,661
Totals	**14,632**	**1,329**	**1,867**	**1,891**	**3,101**	**3,317**	**1,989**	**28,125**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**14,632**	**1,329**	**1,867**	**1,891**	**3,101**	**3,317**	**1,989**	**28,125**



Communication System at San Vicente Pump Station – P0730

Project Category: Asset Management
Rate Category: Customer Service

PROJECT DESCRIPTION

This project will replace the digital, two-way multi-drop communication link at the San Vicente Pump Station with standard electronic communication devices for industrial measurement and control. This will standardize a portion of the SCADA communication technology on the Aqueduct Control System, providing both increased reliability and ease of repair.

FUNDING

The Capital Improvement Program Appropriation for the Fiscal Years 2020 and 2021 is $75,000.

OPERATING IMPACTS

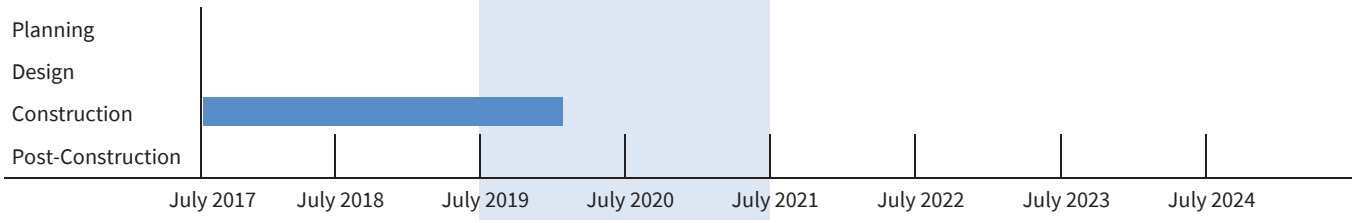
This project will standardize the communication link between the San Vicente Pump Station and the Escondido Control Room.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete the installation/construction.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	–	–	–	–	–	–	–	–
Construction	54	154	75	–	–	–	25	308
Post Construction	–	–	–	–	–	–	–	–
Totals	**54**	**154**	**75**	–	**–**	**–**	**25**	**308**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**54**	**154**	**75**	–	**–**	**–**	**25**	**308**



East County Regional Treated Water Improvements – S0300

Project Category: Other Projects
Rate Category: Customer Service/Transportation/Water Treatment

PROJECT DESCRIPTION

The East County Regional Treated Water Improvements is a joint program of the Water Authority and several member agencies to improve the use of the Helix Water District's Levy Water Treatment Plant. This implements the concept developed in the 2003 Regional Water Master Plan of meeting some treated water demand through improved use of member agency plants. The member agencies involved include Helix Water District, Padre Dam Municipal Water District, Otay Water District, and Lakeside Water District. The program involves the construction or funding of various improvements by each participating agency and a guarantee of certain minimum water purchases by each member agency. To date, the Water Authority purchased additional capacity, participated in the expansion of the Levy plant, acquired capacity rights in various transmission pipelines and pump stations, oversaw the design and construction for member agency led projects, and completed the design and construction for the Otay 14 Flow Control Facility capacity expansion.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $59,546. This project is partially reimbursable by member agencies.

OPERATING IMPACTS

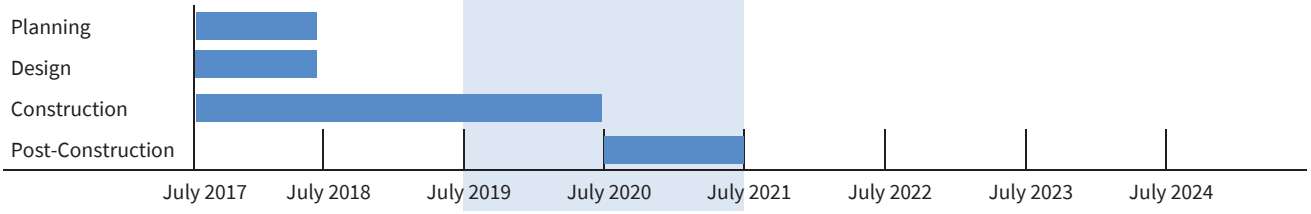
The Water Authority will have an additional flow control facility to operate and maintain to meet the increase in service capacity.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Support the construction of the Padre Dam 7 Flow Control Facility by Padre Dam Municipal Water District.

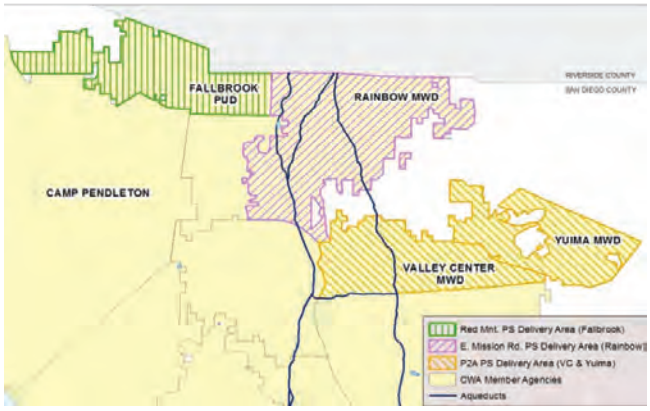
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	44	–	–	–	–	–	–	44
Design	1,405	–	–	–	–	–	–	1,405
Construction	27,509	78	40	–	–	–	–	27,626
Post Construction	–	–	–	20	–	–	–	20
Totals	**28,958**	**78**	**40**	**20**		**–**	**–**	**29,095**
Reimbursable	4,597	78	40	20	–	–	–	4,735
Net Cost	**24,361**	–	–	–	–	–	**–**	**24,361**



ESP – North County Pump Stations – G1800

Project Category: Emergency Storage Program
Rate Category: Storage



PROJECT DESCRIPTION

The ESP North County Pump Stations project is the final phase of the Emergency Storage Project. The project includes a new Metropolitan Water District owned Pipeline 4 turnout, two new member agency owned pump stations, and other member agency system improvements. These facilities will enable treated water deliveries to the northernmost service area during an ESP condition.

FUNDING

The Capital Improvement Program appropriation for Fiscal Years 2020 and 2021 is $30,329,481.

OPERATING IMPACTS

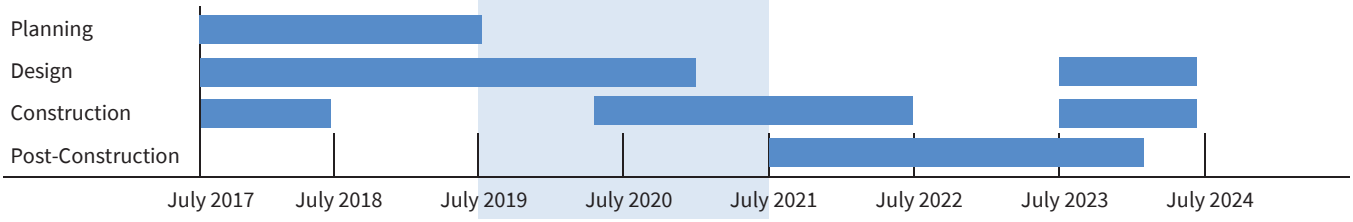
Most of the facilities constructed for this project will be owned and operated by member agencies. The Water Authority will own and operate one metering facility which will result in increased operating costs for operation and maintenance activities.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete member agency agreements, complete MWD service connection agreement, acquire property, complete member agency design and initiate construction, complete Water Authority design and initiate construction.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	1,622	125	–	–	–	–	–	1,747
Design	850	620	2,587	385	–	–	156	4,598
Construction	1	–	6,953	20,405	3,680	–	1,487	32,526
Post Construction	–	–	–	–	327	112	590	1,029
Totals	**2,473**	**745**	**9,540**	**20,790**	**4,007**	**112**	**2,233**	**39,900**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**2,473**	**745**	**9,540**	**20,790**	**4,007**	**112**	**2,233**	**39,900**



ESP - Owner Controlled Insurance Program Closeout – NEW

Project Category: Emergency Storage Program
Rate Category: Storage

PROJECT DESCRIPTION

This project provides support services for the Owner Controlled Insurance Program (OCIP) of the Emergency and Carryover Storage Projects which commenced in April 1999 and ended in March 2015 with the completion of the San Vicente Marina Facilities project. The OCIP was originally purchased for the period of 1999 until 2009 (OCIP I). Due to extended construction work on the ESP beyond 2009, the OCIP end date was moved to 2015 and OCIP II (2009-2015) was created. Both OCIP insurance policy periods included a ten-year tail coverage for Products/Completed Operations for general liability/bodily injury claims.

During fiscal years 2016 and 2017, staff negotiated a buy-out transferring OCIP I to the insurance carrier. The OCIP II expires in December 2024.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Year 2020 and 2021 is $12,024.

OPERATING IMPACTS

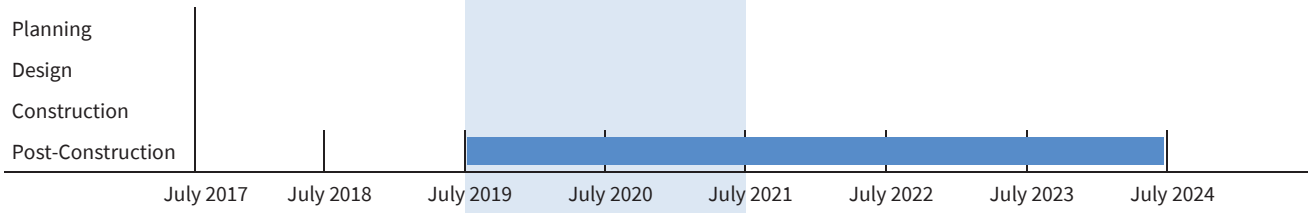
There are no operating impacts resulting from this project.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The focus over the next two fiscal years is to monitor claims and determine insurance carrier interest in accepting OCIP II liability.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	–	–	–	–	–	–	–	–
Construction	–	–	–		–	–	–	–
Post Construction	–	–	6	6	6	6	52	76
Totals	–	–	**6**	**6**	**6**	**6**	**52**	**76**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	–	–	**6**	**6**	**6**	**6**	**52**	**76**



ESP – Post Construction Activities– G2000

Project Category: Emergency Storage Program
Rate Category: Storage

PROJECT DESCRIPTION

This project consolidates the post-construction phase of ESP projects, including the Carryover Storage Project (CSP) components. It was established so that the respective construction projects can be closed and capitalized when construction is complete; but ongoing mitigation and other requirements remain, such as habitat restoration or long-term warranty repairs. Mitigation maintenance and monitoring during fiscal years 2018 and 2019 included the San Vicente Dam Raise, San Vicente Marina, and the San Vicente Bypass Pipeline projects, i.e., the San Vicente Dam Raise suite of projects. Additional on-going elements of this project include documentation and reporting; maintenance of restored habitat areas; finalizing permit compliance; and environmental records management.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $1,802,345.

OPERATING IMPACTS

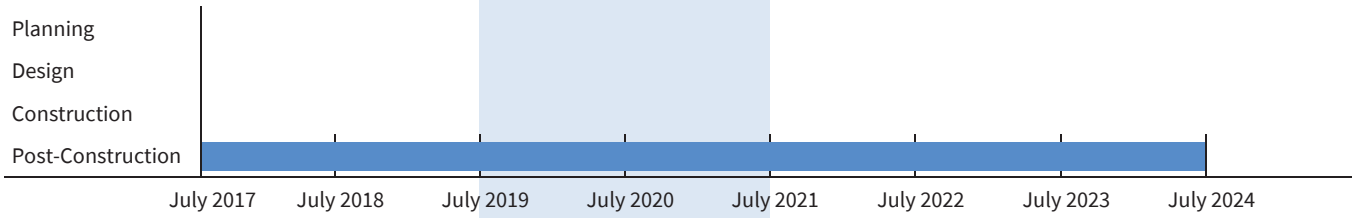
There are no operating impacts.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The focus for Fiscal Years 2020 and 2021 is primarily the continuation of post-construction mitigation maintenance and monitoring at the San Vicente Dam Raise suite of projects. An additional focus is closing out long-term warranty items as well as obtaining U.S. Fish and Wildlife Service's written concurrence that ESP Capital Improvement Program projects' permit conditions are satisfied, and environmental records are transitioned into the Water Authority's electronic document management system.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning		–	–	–	–	–	–	
Design	–	–	–	–	–	–	–	–
Construction	6	–	–	–	–	–	–	6
Post Construction	39,073	441	894	909	149	1,550	5,744	48,759
Totals	**39,079**	**441**	**894**	**909**	**149**	**1,550**	**5,744**	**48,765**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**39,079**	**441**	**894**	**909**	**149**	**1,550**	**5,744**	**48,765**



ESP – San Vicente 3rd Pump Drive and Power – G0610

Project Category: Master Planning and Studies
Rate Category: Storage

PROJECT DESCRIPTION

This project will provide station upgrades and an additional power source to allow the San Vicente Pump Station to be operated at full design capacity. The project is needed to fully utilize an expanded San Vicente Reservoir for future ESP needs, to meet projected peak seasonal demands for untreated water, and to access available carryover storage during supply shortages.

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

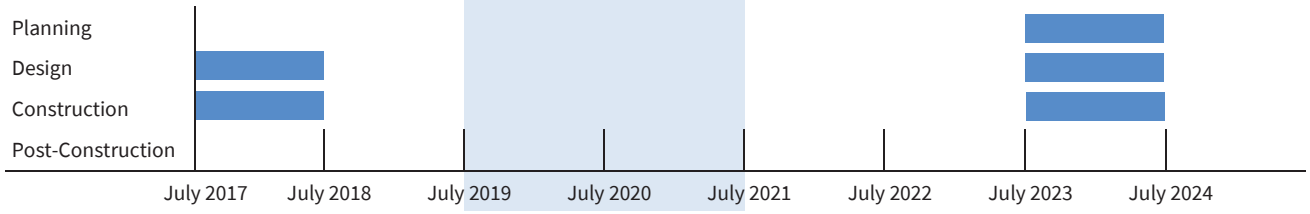
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

No work on this project is currently planned. Increasing the capacity of this facility is not needed in the near-term as a result of reduced demand forecasts. Staff will continue to monitor the needs of the project to determine a revised implementation schedule.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	149	149
Design	257	–	–	–	–	–	1098	1,354
Construction	1	–	–	–	–	–	6,540	6,541
Post Construction	–	–	–	–	–	–	–	–
Totals	**258**	**–**	**–**	**–**	–	–	**7,787**	**8,044**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**258**	**–**	**–**	**–**	–	–	**7,787**	**8,044**



Hauck Mesa Storage Reservoir – N0510

Project Category: New Facilities
Rate Category: Transportation

PROJECT DESCRIPTION

This project will construct a 2.1 million-gallon treated water storage reservoir along the Water Authority's Valley Center Pipeline in Valley Center at a site purchased from the Valley Center Municipal Water District. The new tank will meet regional needs by regulating flows on the Valley Center Pipeline to the First Aqueduct. The project will also offer additional aqueduct reliability and transient protection due to power losses or other flow interruptions at the Valley Center Pump Station.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $11,536,830.

OPERATING IMPACTS

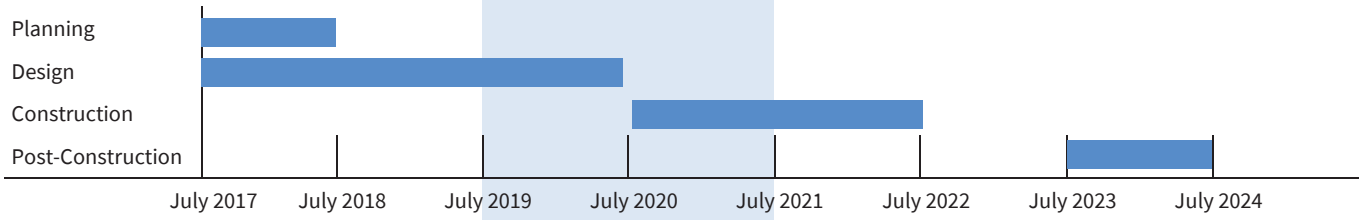
This project will enhance the Water Authority's operational flexibility as well as ensure reliable and efficient deliveries of treated water to its member agencies on the First Aqueduct.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete design and begin construction.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	152	–	–	–	–	–	–	152
Design	1,578	161	214	17	–	–	–	1,970
Construction	20	412	–	11,306	9, 968	–	1,405	23,111
Post Construction	–	–	–	–	–	–	682	682
Totals	**1,750**	**573**	**214**	**11,323**	**9,968**	–	**2,087**	**25,916**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**1,750**	**573**	**214**	**11,323**	**9,968**	–	**2,087**	**25,916**



Infrastructure Rehabilitation – Q0100

Project Category: Asset Management
Rate Category: Customer Service/Transportation

PROJECT DESCRIPTION

Initiated in 2009, the Asset Management Program consolidated a number of capital projects and programs including: Aqueduct Protection Program, Relining & Pipe Replacement Program (see R0200), Valve & Venturi Meter Replacement Program, and several flow control facility rehabilitation projects. The focus of the program is to prioritize rehabilitation, repair or replacement of assets based on risk (consequence of failure and probability of failure). The program has identified ageing assets including flow control facilities, valves, meters, and pipeline structures requiring rehabilitation, repair, replacement or demolition. Fiscal Years 2020 and 2021 will see work commence or continue on 22 Infrastructure Rehabilitation projects (assessment, repair, replacement); four Pipeline projects, and 18 Facility projects. Due to the significant cost of PCCP relining projects, these are separately tracked (see R0200 Relining and Pipe Replacement Program).

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $59,338,455.

OPERATING IMPACTS

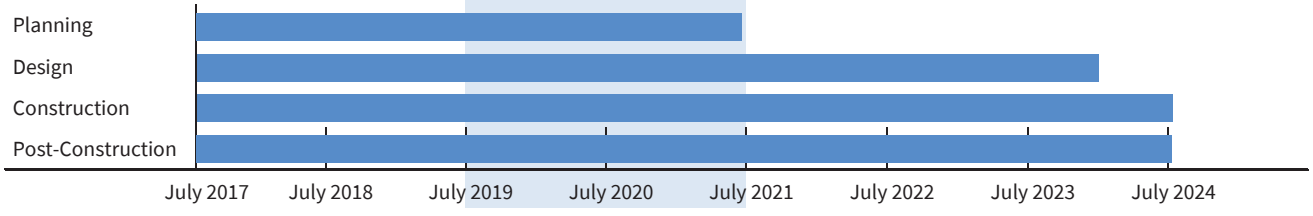
These projects will extend or renew the service life of the assets, resulting in reduced long-term maintenance and operating costs.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

- Design of five flow control facility rehabilitation projects
- Construction of Pipelines 1 and 2 appurtenance structures
- Construction of Vallecitos 2/Vista Irrigation District 1 Flow Control Facility replacement project.
- Construction of San Diego 12 Flow Control Facility replacement project.
- 25-miles of pipe condition assessment of the First Aqueduct.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	1,667	207	217	286	–	–	35	2,412
Design	35,820	1,862	2,329	2,180	3,294	2,366	5,834	53,685
Construction	26,778	23,261	44,302	9,653	13,321	20,757	52,129	190,201
Post Construction	151	106	112	259	247	778	1,913	3,566
Totals	**64,415**	**25,436**	**46,960**	**12,378**	**16,862**	**23,901**	**59,911**	**249,865**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**64,415**	**25,436**	**46,960**	**12,378**	**16,862**	**23,901**	**59,911**	**249,865**



Inline Hydroelectric Energy Generation Facilities-J0300

Project Category: Master Planning and Studies
Rate Category: Customer Service

PROJECT DESCRIPTION

This project provides technical studies for inline hydroelectric facility generation within the Water Authority's aqueduct system, which includes those candidate sites identified in the 2013 Regional Water Facilities Optimization and Master Plan Update, March 2014. These studies will confirm the technical and economic feasibility of candidate sites for potential development.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $242,363.

OPERATING IMPACTS

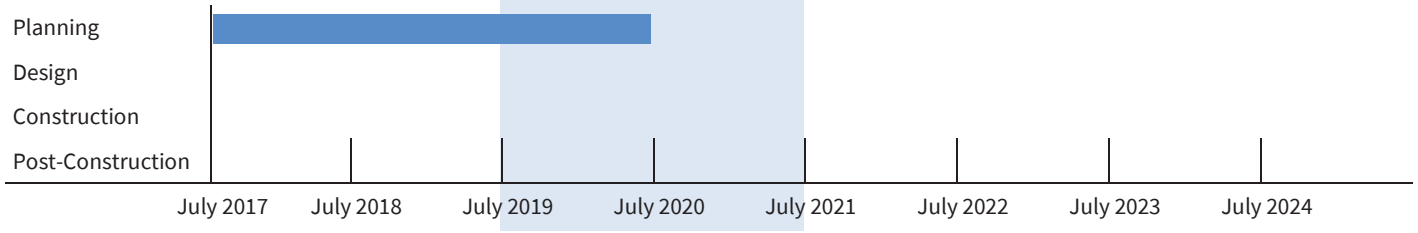
Operating impacts of this project are yet to be determined.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete feasibility and planning studies for candidate sites.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	200	–	242	–	–	–	78	521
Design	–	–	–	–	–	–	–	–
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**200**	–	**242**	–	**–**	**–**	**78**	**521**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**200**	–	**242**	–	**–**	**–**	**78**	**521**



Kearny Mesa Headquarters Roof – N0800

Project Category: Other
Rate Category: Customer Service

PROJECT DESCRIPTION

In February 2001, staff moved into the Kearny Mesa headquarters building. The building has functioned well except for the roof which is no longer watertight in several areas. Chronic roof leaks affect the 2nd floor during periods of rain. This project encompasses installation of a thermoplastic polyolefin (TPO) roofing membrane to prevent further leaks in FY19. TPO includes a layer of white reflecting coating to deflect the sun's rays which will keep the building cooler and reduce energy consumption. The entire roof is targeted for replacement in FY25, but will be evaluated prior to determine life expectancy.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,325.

OPERATING IMPACTS

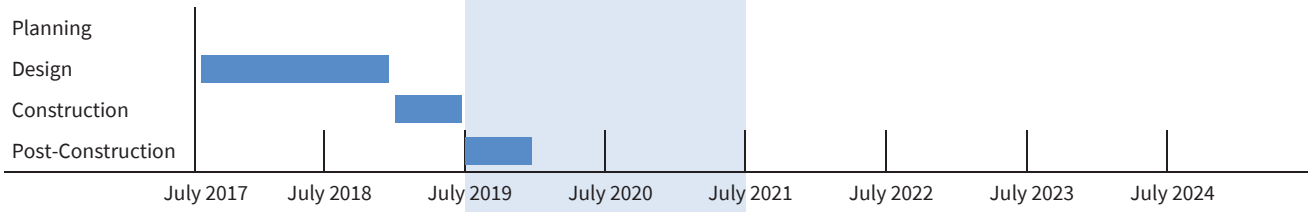
This project will stop roof leaks, reduce energy consumption, as well as extend the life of the existing roof.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete warranty inspection.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	165	46	–	–	–	–	–	211
Construction	–	510	–	–	–	–	164	674
Post Construction	–	–	3	–	–	–	–	3
Totals	**165**	**556**	**3**	–	–	–	**164**	**888**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**165**	**556**	**3**	–	–	–	**164**	**888**



Line Road Improvements – NEW

Project Category: Asset Management
Rate Category: Customer Service

PROJECT DESCRIPTION

This project will provide line road improvements to culverts, gates and line road sections. Such improvements are required to ensure access is maintained for performance of aqueduct maintenance functions and right-of-way patrol activities.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $327,000.

OPERATING IMPACTS

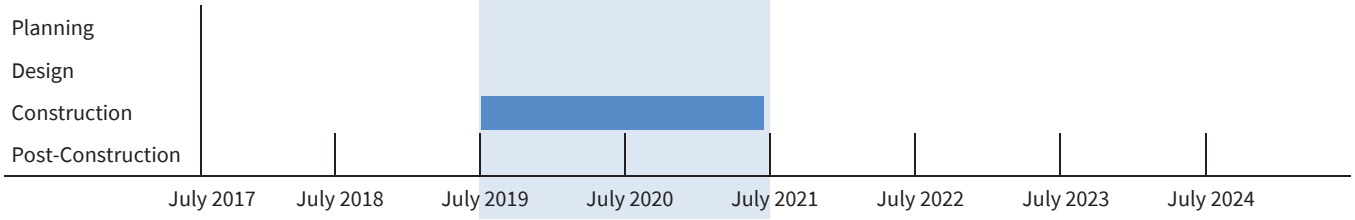
Improving access to the aqueduct system will facilitate patrolling and maintenance activities, reduce response times, and control encroachments, resulting in reduced operational costs.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Staff will pursue placement of road material, i.e. rock and base material, for improved access from Santa Luz to Carmel Valley Road, and from the Miramar Vents to Camp Elliot. Projects for line road culverts and gates at various locations will continue.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	–	–	–	–	–	–	–	–
Construction	–	–	164	163	–	–	61	388
Post Construction	–	–	–	–	–	–	–	–
Totals	–	–	**164**	**163**	–	–	**61**	**388**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	–	–	**164**	**163**	–	–	**61**	**388**



Master Plan Update (RFP) - NEW

Project Category: Master Planning and Studies
Rate Category: Customer Service

PROJECT DESCRIPTION

The project will develop a scope of work, for inclusion in a future Request for Proposals, to evaluate new infrastructure requirements and opportunities to optimize existing regional facilities that support the mix of local and imported water supplies projected for the region through the 2045 planning horizon.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $52,304.

OPERATING IMPACTS

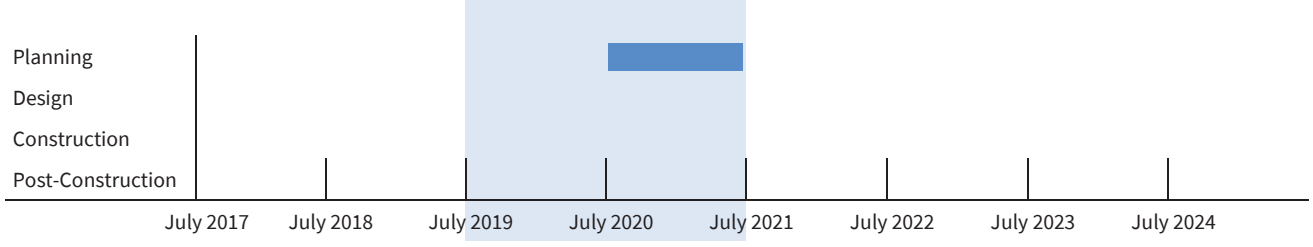
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The Fiscal Years 2020 and 2021 budget appropriation is to complete a scope of work for an update to the 2013 Regional Water Facilities Optimization and Master Plan Update based on results from the 2020 Urban Water Management Plan.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	52	–	–	–	52
Design	–	–	–	–	–	–	–	–
Construction	–	–	–		–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	–	–	–	**52**	–	–	–	**52**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	–	–	–	**52**	–	–	–	**52**



Mission Trails Flow Regulatory Structure (FRSII)/Lake Murray Control Valve – C0600

Project Category: New Facilities
Rate Category: Transportation

PROJECT DESCRIPTION

The Mission Trails Flow Regulatory Structure (FRSII)/Lake Murray Control Valve project is the consolidation of two existing CIP projects as a result of continued evaluation performed in the 2013 Regional Water Facilities Optimization and Master Plan Update. The combined project will place the existing Mission Trails Pipeline Tunnels in service to meet future untreated water demands for the central and south county service areas, and to relieve existing operational risks. The budgeted project consists of a buried reinforced concrete storage reservoir and appurtenant pipeline facilities, a new Flow Control Facility, and removal of existing vents in Mission Trails Regional Park.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $26,382,499.

OPERATING IMPACTS

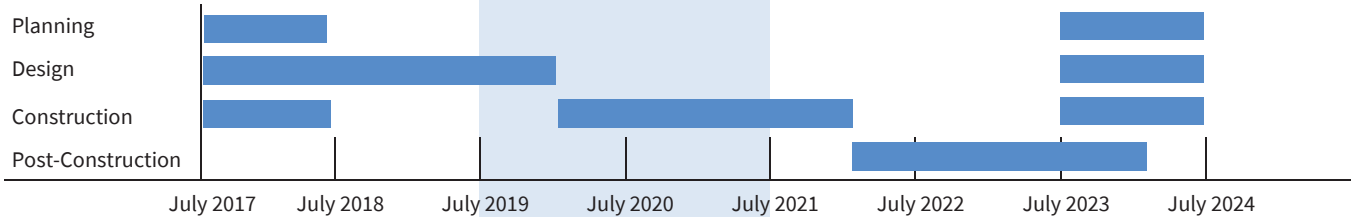
The future operating impacts of this project will be determined as part of the design phase.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The Fiscal Years 2020 and 2021 budget includes funds to design the Mission Trails Flow Regulatory Structure (FRSII), Flow Control Facility, demolition of eight vent stacks, and the evaluation of other system rehabilitation and/or modifications required to meet untreated water demands.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	2,314	–		–	–	–	–	2,314
Design	4,621	1,173	441	–	–	–	476	6,711
Construction	14	–	5,698	20,243	309	–	6,331	32,595
Post Construction	–	–	–	–	673	8	149	830
Totals	**6,949**	**1,173**	**6,139**	**20,243**	**982**	**8**	**6,956**	**42,450**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**6,949**	**1,173**	**6,139**	**20,243**	**982**	**8**	**6,956**	**42,450**



Mitigation Program – H0200

Project Category: Other Projects
Rate Category: Transportation

PROJECT DESCRIPTION

The Mitigation Program provides comprehensive mitigation for Water Authority programs, projects, and actions resulting from compliance with state and federal endangered species and wetland regulations. Short-term efforts focus on coordinated permitting and immediate project needs. Long-term efforts include implementing certain multi-species/wetland mitigation projects associated with the Water Authority's long-term (50-year) multi-species and wetland permits, and developing agreements with regulatory agencies to ensure right-sizing of the Water Authority's existing and future mitigation credit inventory.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,089,939.

OPERATING IMPACTS

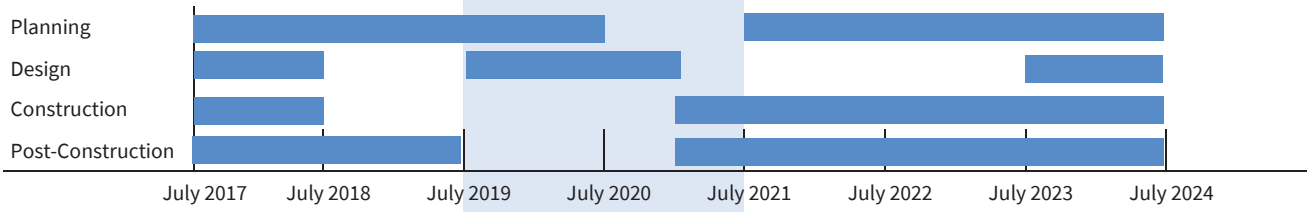
The operating impacts of this project have yet to be determined.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete the design, acquire permits and commence construction of the proposed San Luis Rey River Habitat Restoration Project, which will establish a minimum of 3-acres of wetlands credits and other sensitive habitat as mitigation for future CIP projects and operations and maintenance actions. Negotiate and fund one-time endowments for San Miguel upland mitigation site, and the Manchester wetland mitigation site. Actively participate in the US Army Corps of Engineer's review and any potential modification to the Water Authority's existing 50-year programmatic wetland permit.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	6,694	70	28	–	6	1,271	12	8,081
Design	9,356	–	580	424	–	–	35	10,395
Construction	4,404	–		1,622	4,592	200	1,387	12,205
Post Construction	99	312		437	86	723	2,705	4,362
Totals	**20,553**	**382**	**608**	**2,483**	**4,684**	**2,194**	**4,139**	**35,043**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**20,553**	**382**	**608**	**2,483**	**4,684**	**2,194**	**4,139**	**35,043**



Operations and Maintenance Facility – NEW

Project Category: New Facilities
Rate Category: Customer Service

PROJECT DESCRIPTION

The existing Operations and Maintenance Facility in Escondido requires significant improvements to meet the existing and future needs of the Operations and Maintenance Department. Project funds will be used to either upgrade the existing Facility or relocate the O&M functions to a new site.

FUNDING

The Capital Improvement Program Appropriation for the Fiscal Years 2020 and 2021 is $10,000,000

OPERATING IMPACTS

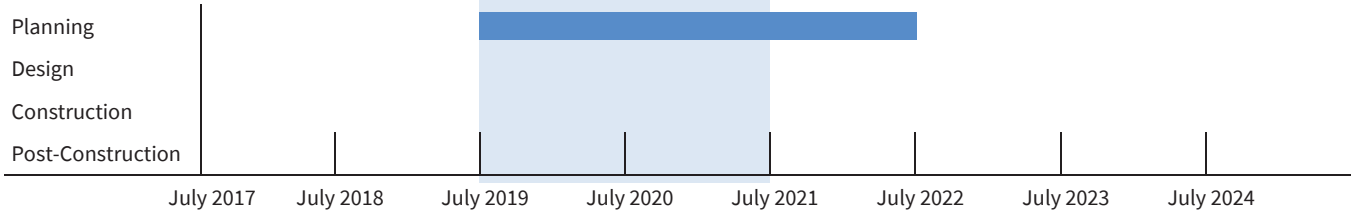
Maintaining an adequate O&M Facility which meets the needs of the Department is critical to the efficient operation and maintenance of the Water Authority's aqueduct system and to the reliable delivery of water to its member agencies.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Plan for the facility to meet current and future operational and maintenance requirements. Evaluate options to ensure the long-term sustainability of O&M's operations and maintenance functions while optimizing organizational effectiveness and efficiencies.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	-	–	5,000	1,000	4,000	–	–	10,000
Design	-	-	–	–	–	–	–	-
Construction	-	-	-	–	–	–	-	-
Post Construction	-	-	-	–	–	–	–	-
Totals	**-**	**-**	**5,000**	**1,000**	**4,000**	**–**	**-**	**10,000**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**-**	**-**	**5,000**	**1,000**	**4,000**	–	**-**	**10,000**



Pipeline 3/Pipeline 4 Conversion – M4550

Project Category: Master Planning and Studies
Rate Category: Transportation

PROJECT DESCRIPTION

Pipeline 3/Pipeline 4 Conversion is a new project recommended in the 2013 Regional Water Facilities Optimization and Master Plan Update. The project is intended to increase untreated water conveyance capacity in the Second Aqueduct north of Twin Oaks Valley by converting all or a portion of the existing Pipeline 4 (capacity 470 cfs) to untreated water service and a similar portion of Pipeline 3 (capacity 280 cfs) to treated water service.

This project also considers additional storage to the Water Authority's conveyance system. Additional storage will increase the efficiency of system operations and allow for the integration of new supplies into the aqueduct system

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

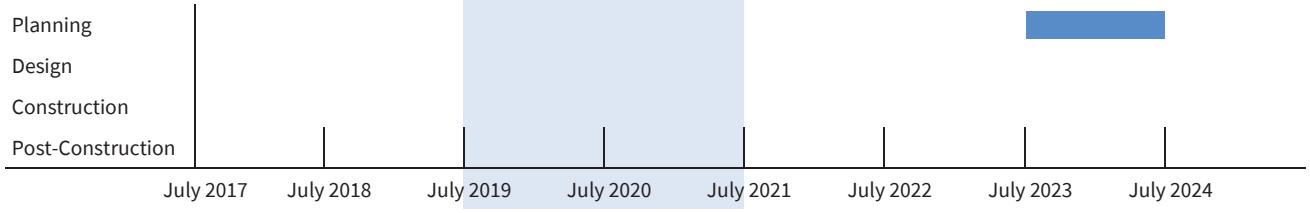
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

No work on this project is currently planned. Increasing untreated water capacity in the system is not needed in the near-term as a result of reduced demand forecasts. Staff will continue to monitor the needs of the project to determine a revised implementation schedule.

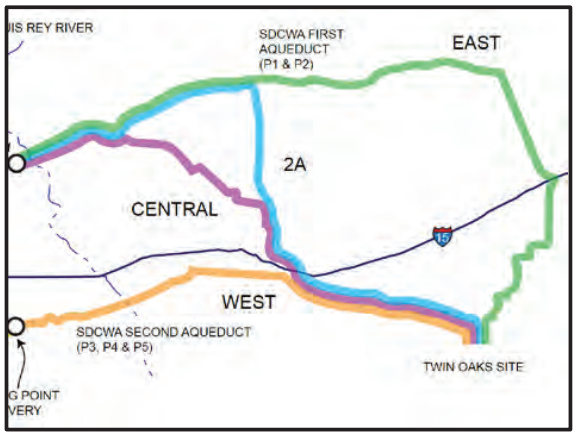
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	1,014	1,014
Design	–	–	–	–	–	–	–	–
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**–**	**–**	**–**	**–**	–	–	**1,014**	**1,014**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**–**	**–**	**–**	**–**	–	–	**1,014**	**1,014**



Pipeline 6 – F0100

Project Category: Long Range Forecast Projects
Rate Category: Transportation



PROJECT DESCRIPTION

Pipeline 6 was included in the 1987 Water Distribution Study and approved by the Board in August 1989. The Pipeline 6 project consists of approximately 12 miles of 108-inch diameter pipeline extending from the Metropolitan Water District of Southern California (MWD) Delivery Point to the Water Authority's Twin Oaks Valley Diversion Structure. MWD would construct the pipeline from De Portola Road in Riverside County to the Delivery Point. This project is designed to increase the Water Authority's capability to import up to 320 mgd of untreated water.

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

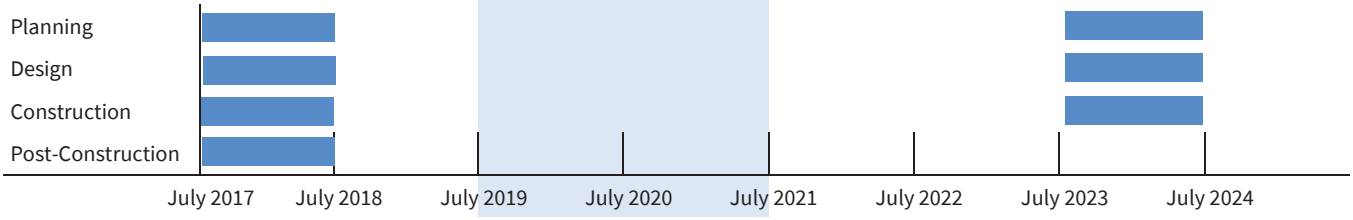
The operating impacts of this project are yet to be determined.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

No work on this project is currently planned. The 2013 Regional Water Facilities Optimization and Master Plan Update did not identify a need for the additional untreated water capacity associated with this project in the planning window ending 2030.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	3,916	–	–	–	–	–	2,434	6,350
Design	1,920	–	–	–	–	–	44,227	46,147
Construction	1	–	–	–	–	–	390,711	390,712
Post Construction	2	–	–	–	–	–	–	2
Totals	**5,839**	**–**	**–**	**–**	**–**	**–**	**437,372**	**443,211**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**5,839**	**–**	**–**	**–**	**–**	**–**	**437,372**	**443,211**



Post-Construction Mitigation Management – H0500

Project Category: Other Projects
Rate Category: Transportation

PROJECT DESCRIPTION

This mitigation maintenance, monitoring and reporting program consolidates the post-construction phase of existing non-ESP construction projects. Post construction projects are established during the development of the two-year budget so that the respective construction projects can be closed and capitalized when construction is complete; but ongoing mitigation requirements remain, such as habitat restoration.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $305,102.

OPERATING IMPACTS

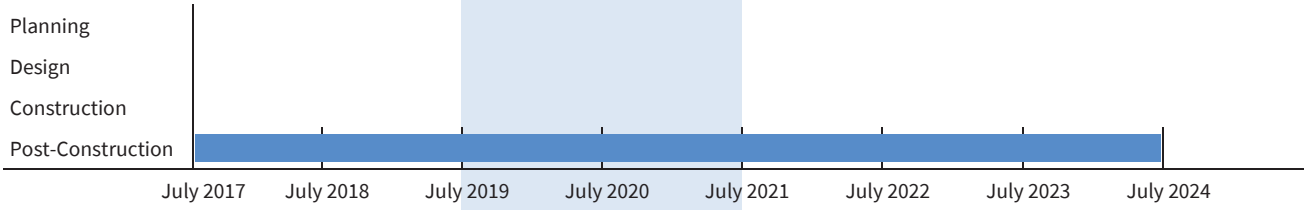
There are no operating impacts.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Staff will continue to implement habitat remediation and erosion prevention activities, including monitoring and documenting habitat restoration as required by projects' environmental commitments, mitigation monitoring and reporting programs and natural resources regulatory permits. Work continues in Mission Trails Regional Park; Pipeline 3 Relining Lake Murray to Sweetwater Reservoir; Pipeline 4 Relining Lake Murray Interconnect to Alvarado; Pipeline 3 Relining Desal San Marcos to Twin Oaks construction, and Nob Hill Pipeline Improvement projects. Staff will also commence required post-construction mitigation for non-ESP projects that will file notices of completion within the budget period, such as Pipeline 5 Relining Delivery Point to Sage Road.

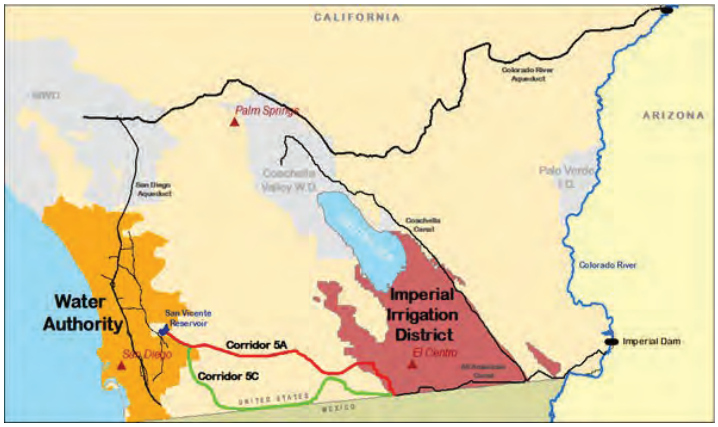
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	1	–	–	–	–	–	–	1
Design	–	–	–	–	–	–	–	–
Construction	1	–	–	–	–	–	–	1
Post Construction	2,511	155	222	83	106	138	2,142	5,357
Totals	**2,513**	**155**	**222**	**83**	**106**	**138**	**2,142**	**5,359**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**2,513**	**155**	**222**	**83**	**106**	**138**	**2,142**	**5,359**



Regional Conveyance System Study - NEW

Project Category: Master Planning and Studies
Rate Category: Customer Service



PROJECT DESCRIPTION

As part of the 2003 Quantification Settlement Agreement (QSA), the Water Authority has rights to up to 280,000 acre-feet of Colorado River supplies that are currently delivered to the Water Authority service area via an Exchange Agreement with Metropolitan Water District of Southern California. The Water Authority evaluated an alternative conveyance option for delivery of QSA supplies directly from the Imperial Valley to the San Diego region via a new pipeline, as part of past studies and in conjunction with Regional Water Facilities Optimization and Master Plan efforts. This new study will build upon previous work to further evaluate the technical and economic feasibility of a regional conveyance pipeline.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,900,000.

OPERATING IMPACTS

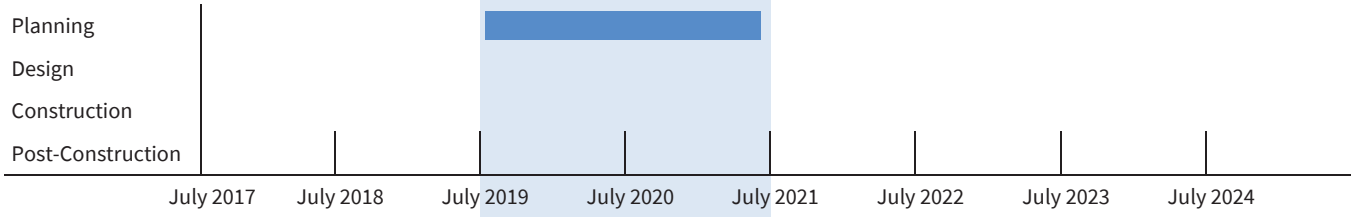
There are no anticipated operating impacts associated with these planning-level efforts.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete a two-phased study in coordination with the Colorado River Work Group and as directed by the Board to advance work to a level that environmental analysis could begin.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	1,600	2,300	–	–	–	3,900
Design	–	–	–	–	–	–	–	–
Construction	–	–	–		–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	–	–	**1,600**	**2,300**	–	–	–	**3,900**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	–	–	**1,600**	**2,300**	–	–	–	**3,900**



Relining and Pipe Replacement Program – R0200

Project Category: Asset Management
Rate Category: Transportation

PROJECT DESCRIPTION

There are 82 miles of pre-stressed concrete cylinder pipe (PCCP) within the Water Authority's Second Aqueduct constructed between 1958 and 1982. Due to the risks associated with failure of this type of pipe, the Board in 1993 approved the Replacement/Relining of Existing PCCP Program to facilitate the rehabilitation of Water Authority pipelines. The length of existing PCCP pipelines rehabilitated to date totals approximately 45 miles. This project is part of the overall Asset Management Program, however due to the significant cost of PCCP relining projects, these are separately tracked under this project.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,408,888.

OPERATING IMPACTS

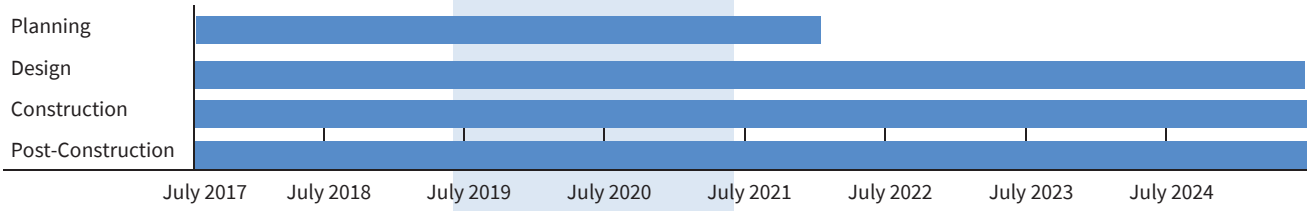
These projects will extend or renew the service life of the assets, resulting in reduced long-term maintenance and operating costs.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Completion of Pipeline 5 relining Delivery Point to Sage Road project and design of Crossover Pipeline relining and Pipeline 5 relining San Luis Rey Canyon.

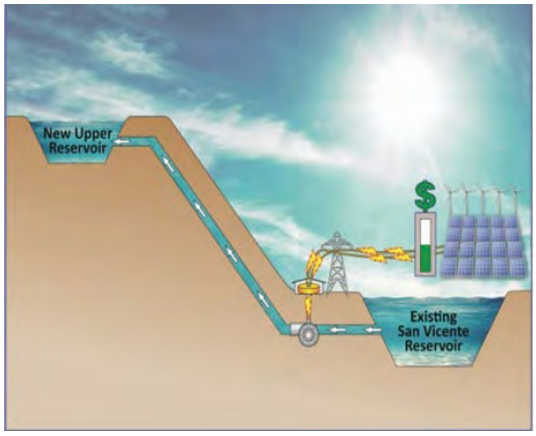
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	3,052	70	257	113	375	–	60	3,936
Design	13,292	64	–	528	1,261	1,277	78,353	94,775
Construction	293,162	29,380	23	–	–	4,930	62,131	389,626
Post Construction	860	351	108	2,381	86	51	813	4,650
Totals	**310,365**	**29,874**	**387**	**3,022**	**1,722**	6,258	**141,357**	**492,985**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**310,365**	**29,874**	**387**	**3,022**	**1,722**	6,258	**141,357**	**492,985**



San Vicente Energy Storage Facility Study– J0200

Project Category: Master Planning and Studies
Rate Category: Customer Service



PROJECT DESCRIPTION

The Water Authority and City of San Diego are partners on the San Vicente Energy Storage Facility Study, which is in the planning phase. The potential project would provide up to 500 megawatts of "on call" hydroelectric power for the region. The facility would provide up to 4,000 Megawatt-hours per day of energy. The facility could be used to improve electric grid reliability by storing excess renewable energy for later use when renewable energy is not available, such as early morning or evening. The infrastructure for the facility includes the expanded San Vicente Reservoir (lower reservoir), a proposed upper reservoir, conveyance tunnels/shafts, powerhouse and pump station, and electric transmission lines. In October 2018, the Federal Energy Regulatory Commission (FERC) approved a new four-year preliminary permit with the option to extend the permit for an additional four years. In November 2018, a term sheet was signed with a private developer, which will be used as the basis for negotiations on a future Project Development Agreement (PDA).

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $3,872,841 for strategic legislative and regulatory planning and the preparation of a Project Development Agreement. If the Board approves the Project Development Agreement, additional budget associated with implementation would be requested at that time.

OPERATING IMPACTS

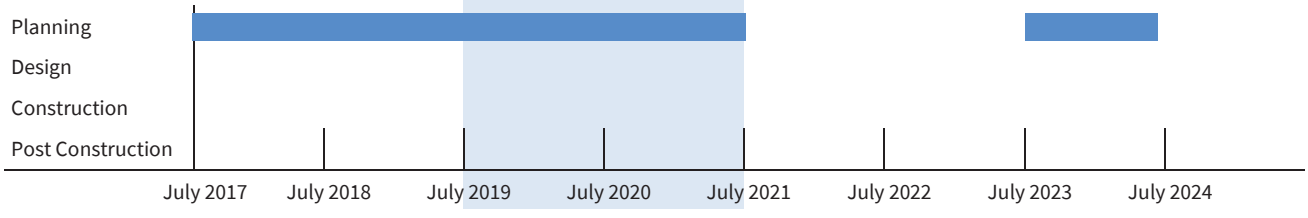
There are no anticipated operating impacts as a result of this project.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Current activities include legislative and regulatory support and negotiating a project development agreement with a private developer.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	4,566	1,338	1,990	1,883	–	–	916	10,693
Design	–	–	–	–	–	–	–	–
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**4,566**	**1,338**	**1,990**	**1,883**	**–**	**–**	**916**	**10,693**
Reimbursable	1,381	–	570	570	–	–	–	2,521
Net Cost	**3,185**	**1,338**	**1,420**	**1,313**	**–**	**–**	**916**	**8,172**



Second Aqueduct Diversion Complex and Operations Study - NEW

Project Category: Master Planning and Studies
Rate Category: Customer Service

PROJECT DESCRIPTION

This project will evaluate both treated and untreated water facilities concentrated around the diversion structure located in the northern section of our Second Aqueduct and provide infrastructure modifications to optimize operations and extend the facility's useful life.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $633,319.

OPERATING IMPACTS

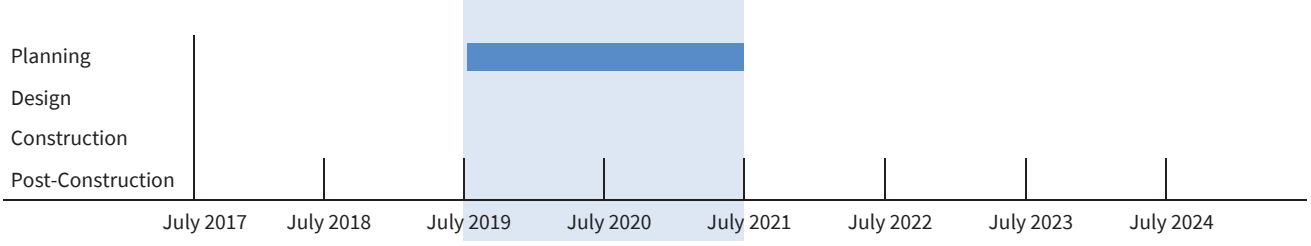
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The Fiscal Years 2020 and 2021 budget appropriation is to complete a planning study that evaluates infrastructure and operational improvements on both the treated and untreated water facilities on the northern section of the Second Aqueduct and identify project recommendations for future implementation.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	298	335	–	–	–	633
Design	–	–	–	–	–	–	–	–
Construction	–	–	–		–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	–	–	**298**	**335**	–	–	–	**633**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	–	–	**298**	**335**	–	–	–	**633**



Second Crossover Pipeline – N0360

Project Category: Long Range Forecast Projects
Rate Category: Transportation

PROJECT DESCRIPTION

The Second Crossover Pipeline project involves construction of a new 52,000-foot long, 96-inch diameter pipeline to replace and upgrade the capacity of the existing Crossover Pipeline. The Second Crossover Pipeline is being evaluated in combination with the Pipeline 6 project to optimize regional benefits of both projects.

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

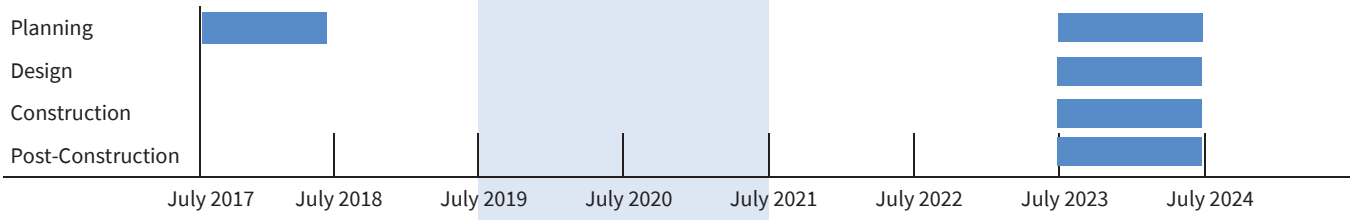
The operating impacts of this project are yet to be determined.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

No work on this project is currently planned. The 2013 Regional Water Facilities Optimization and Master Plan Update did not identify a need for the additional untreated water capacity associated with this project in the planning window ending 2030.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	1	–	–	–	–	–	548	550
Design	–	–	–	–	–	–	29,790	29,790
Construction	–	–	–	–	–	–	339,137	339,137
Post Construction	–	–	–	–	–	–	1,565	1,565
Totals	**1**	**–**	**–**	**–**	**–**	**–**	**371,040**	**371,041**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**1**	**–**	**–**	**–**	**–**	**–**	**371,040**	**371,041**



System Isolation Valves – M4650

Project Category: Master Planning and Studies
Rate Category: Transportation

PROJECT DESCRIPTION

System Isolation Valves is a new project recommended in the 2013 Regional Water Facilities Optimization and Master Plan Update. The project includes installing large diameter in-line valves in key locations to 1) isolate the aqueduct system from high-risk areas that have the potential to remove significant segments of the system for extended outages, 2) allow for more efficient isolation of segments of the aqueduct system to perform required inspection and maintenance, and 3) isolate segments of the aqueduct system during low-flow periods to address potential water quality concerns.

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

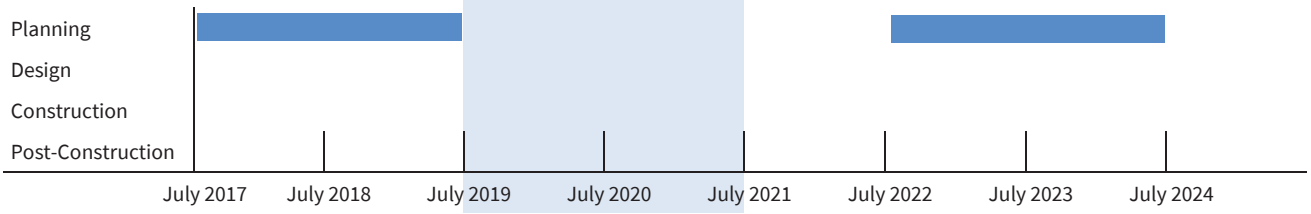
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

No work on this project is currently planned. Project schedule has been adjusted due to prioritization of the CIP.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	221	1	–	–	–	245	54	522
Design	–	–	–	–	–	–	–	–
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**221**	**1**	–	**–**	**–**	**245**	**54**	**522**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**221**	**1**	–	**–**	**–**	**245**	**54**	**522**



System Storage – N0500

Project Category: Long Range Forecast Projects
Rate Category: Transportation

PROJECT DESCRIPTION

This project adds storage to the Water Authority's conveyance system. Additional storage will increase the efficiency of system operations and allow for the integration of new supplies into the aqueduct system.

FUNDING

There is no Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021.

OPERATING IMPACTS

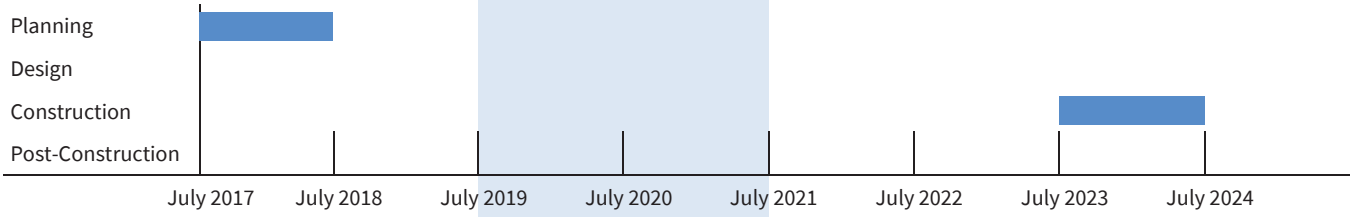
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

No work on this project is currently planned. Increasing storage capacity in the system is not needed in the near-term as a result of reduced demand forecasts. Staff will continue to monitor the needs of the project to determine a revised implementation schedule.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	103	–	–	–	–	–	–	103
Design	–	–	–	–	–	–	–	–
Construction	–	–	–	–	–	–	39,516	39,516
Post Construction	–	–	–	–	–	–	–	–
Totals	**103**	**–**	**–**	**–**		**–**	**39,516**	**39,619**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**103**	**–**	**–**	**–**		**–**	**39,516**	**39,619**



System Vulnerability Assessment – H0130

Project Category: Master Planning and Studies
Rate Category: Customer Service

PROJECT DESCRIPTION

This project supports a key facility planning concern that was recommended for further evaluation in the 2013 Regional Water Facilities Optimization and Master Plan Update. This issue involves the vulnerability of key Water Authority transmission pipelines and support structures to natural and man-made catastrophic events. In 2018, the support structures vulnerability assessment was completed. The remaining work will be focused on the transmission pipelines.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $1,243,348.

OPERATING IMPACTS

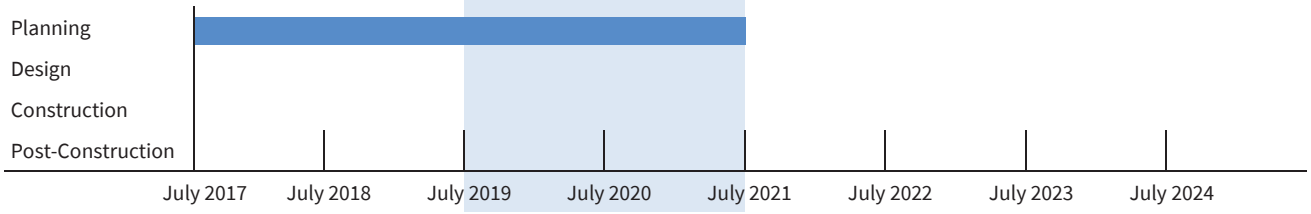
The future operating impacts of this project will be determined as part of the planning process.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

The proposed Fiscal Years 2020 and 2021 budget appropriation is to complete a seismic vulnerability evaluation of transmission pipelines and update repair time estimates that were originally completed in 1993 for the planning of the Emergency Storage Project. The study will evaluate the condition of existing pipelines under the current seismic standards and practices and identify areas of concerns and possible upgrades necessary to maintain system reliability. Focus will be placed on Aqueduct Pipelines 1 through 5 within San Diego County and other crossover pipelines.

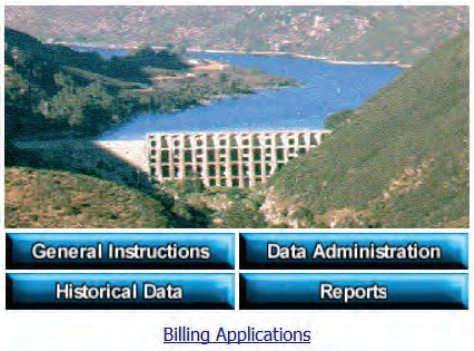
($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	408	24	377	866	–	–	96	1,770
Design	–	–	–	–	–	–	–	–
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**408**	**24**	**377**	**866**	**–**	–	**96**	**1,770**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**408**	**24**	**377**	**866**	**–**	**–**	**96**	**1,770**



Water Billing and Information Management System – H0105

Project Category: Other Projects
Rate Category: Customer Service



Billing Applications

PROJECT DESCRIPTION

This project includes selection, deployment, and testing of a new billing application and Water Resources data management system that is fully compatible with Water Authority software specifications.

FUNDING

The Capital Improvement Program appropriation for the Fiscal Years 2020 and 2021 is $574,110.

OPERATING IMPACTS

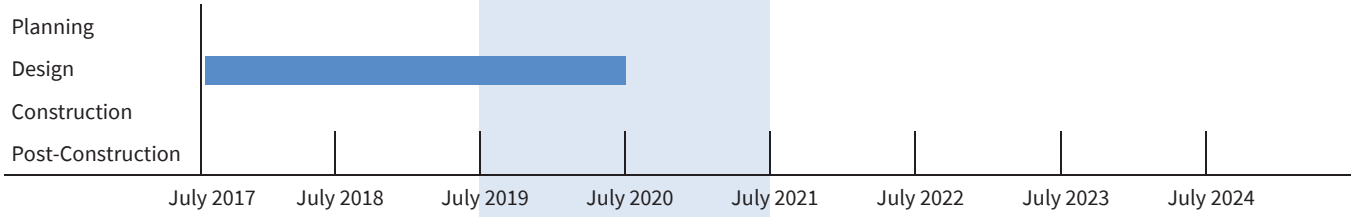
Updating our billing and data management system will improve process efficiency, enhance user-interface, and allow staff to maintain software compatibility with Water Authority standardized applications. There are no additional operating impacts resulting from this project.

FISCAL YEARS 2020 AND 2021 HIGHLIGHTS

Complete development of new billing and data management system for implementation.

($ Thousands)

Project Phase	Lifetime Actuals Thru 6/30/2018	FY2019 Projected Expenditures	FY2020 Projected Expenditures	FY2021 Projected Expenditures	FY2022 Projected Expenditures	FY2023 Projected Expenditures	FY2024 and Beyond	Total Lifetime Budget
Planning	–	–	–	–	–	–	–	–
Design	109	436	574	–	–	–	239	1,358
Construction	–	–	–	–	–	–	–	–
Post Construction	–	–	–	–	–	–	–	–
Totals	**109**	**436**	**574**	–	**–**	**–**	**239**	**1,358**
Reimbursable	–	–	–	–	–	–	–	–
Net Cost	**109**	**436**	**574**	–	**–**	**–**	**239**	**1,358**



This page intentionally left blank

Appendices

For ease of use, not all of the information that went into developing the adopted budget has been included in the front section. The following appendices provide certain supplemental information on key components of the budget and summary data on an agency-wide basis.

Appendix A – Water Authority Workforce. Provides additional information on budgeted positions by department, including the distribution of positions between the Operating and Capital Improvement Program (CIP) funds.

Appendix B – Capitalized Overhead. Provides additional information on the Water Authority's Capitalized Overhead allocation and discusses any significant changes from the previous multi-year budget.

Appendix C – Sources and Uses Definitions. Provides additional definitions and historical information beyond that already discussed in the Sources and Uses section.

Appendix D – Energy. Summarizes energy related budget items that span multiple departments.

Appendix E – Glossary. Includes glossary of common terms and acronyms.

Appendix F – Classification and Salary Schedule. Provides the Water Authority's classification and salary schedule as required by Section 2.16.060(d) of the Administrative Code.

Appendix G – Memorandums, Resolutions, and Ordinances. Provides the adopted budget and rates and charges memorandums, resolutions, and ordinances.

Appendix H – Performance Information. Provides updated performance information on the 2019-2023 Business Plan.

This page intentionally left blank

Water Authority Workforce

LABOR DISTRIBUTION

The cost for positions that work directly on reimbursable projects, such as CIP or grants, are allocated to these non-operating funds. It is projected that approximately 19% of the Water Authority's positions will be funded through the CIP or grants.

The table below identifies by position, the number of Full-time Employees (FTEs) that are allocated to the Operating or CIP/Grant Funds. Throughout the year, depending on workload, this number may fluctuate.

FTEs by Fund by Department

	Operating		CIP		Total	
Administrative Services	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Administrative Services Manager	1.00	1.00	0.00	0.00	1.00	1.00
Assistant Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Director of Administrative Services	1.00	1.00	0.00	0.00	1.00	1.00
Facilities Services Technician	1.00	1.00	0.00	0.00	1.00	1.00
Help Desk Support Specialist	1.00	1.00	0.00	0.00	1.00	1.00
Information Security Officer	1.00	1.00	0.00	0.00	1.00	1.00
Information Systems Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Information Systems Manager	1.00	1.00	0.00	0.00	1.00	1.00
Information Systems Supervisor	3.00	3.00	0.00	0.00	3.00	3.00
Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Purchasing Technician I	1.00	1.00	0.00	0.00	1.00	1.00
Receptionist	1.00	1.00	0.00	0.00	1.00	1.00
Senior Information Systems Analyst	9.00	9.00	0.00	0.00	9.00	9.00
Senior Management Analyst	2.00	2.00	0.00	0.00	2.00	2.00
Senior Office Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Supervising Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Systems Administration & Support Specialist	2.00	2.00	0.00	0.00	2.00	2.00
TOTAL ADMINSTRATIVE SERVICES	**30.00**	**30.00**	**0.00**	**0.00**	**30.00**	**30.00**

FTEs by Fund by Department, continued

Colorado River Program	Operating		CIP		Total	
	FY 20	FY 21	FY 20	FY 21	FY 20	FY 21
Administrative Assistant	0.67	0.67	0.08	0.08	0.75	0.75
Director of the Colorado River Program	0.80	0.80	0.20	0.20	1.00	1.00
Engineer (P.E.)	0.25	0.25	0.75	0.75	1.00	1.00
Principal Water Resources Specialist	1.00	1.00	0.00	0.00	1.00	1.00
QSA Outreach Coordinator	1.00	1.00	0.00	0.00	1.00	1.00
Senior Water Resources Specialist	1.00	1.00	0.00	0.00	1.00	1.00
TOTAL COLORADO RIVER	**4.72**	**4.72**	**1.03**	**1.03**	**5.75**	**5.75**

Engineering	Operating		CIP		Total	
	FY 20	FY 21	FY 20	FY 21	FY 20	FY 21
Administrative Assistant	0.65	0.65	0.35	0.35	1.00	1.00
Assistant Management Analyst	0.25	0.25	1.75	1.75	2.00	2.00
Deputy Director of Engineering	0.25	0.25	0.75	0.75	1.00	1.00
Director of Engineering	0.35	0.35	0.65	0.65	1.00	1.00
Engineer I	0.10	0.10	0.90	0.90	1.00	1.00
Engineer II	0.05	0.05	0.95	0.95	1.00	1.00
Engineer (P.E.)	0.24	0.24	3.76	3.76	4.00	4.00
Engineering Manager	0.30	0.30	0.70	0.70	1.00	1.00
Engineering Technician I	0.10	0.10	1.90	1.90	2.00	2.00
Engineering Technician II	0.08	0.08	1.92	1.92	2.00	2.00
Management Analyst	1.07	1.07	0.93	0.93	2.00	2.00
Office Assistant I	0.45	0.45	0.55	0.55	1.00	1.00
Principal Engineer	1.05	1.05	1.95	1.95	3.00	3.00
Project Scheduler II	0.05	0.05	1.95	1.95	2.00	2.00
Right of Way Manager	0.85	0.85	0.15	0.15	1.00	1.00
Right of Way Supervisor	1.00	1.00	0.00	0.00	1.00	1.00
Right of Way Technician	6.00	6.00	0.00	0.00	6.00	6.00
Senior Construction Manager	0.10	0.10	0.90	0.90	1.00	1.00
Senior Engineer	0.40	0.40	3.60	3.60	4.00	4.00
Senior Engineering Technician	0.13	0.13	2.87	2.87	3.00	3.00
Senior Management Analyst	0.85	0.85	0.15	0.15	1.00	1.00
Senior Office Assistant	1.35	1.35	1.65	1.65	3.00	3.00
Senior Project Scheduler	0.05	0.05	0.95	0.95	1.00	1.00
Senior Right of Way Agent	0.35	0.35	0.65	0.65	1.00	1.00
Senior Survey Technician	0.85	0.85	0.15	0.15	1.00	1.00
Supervising Land Surveyor	0.75	0.75	0.25	0.25	1.00	1.00
Supervising Management Analyst	0.40	0.40	0.60	0.60	1.00	1.00
Survey Technician	0.85	0.85	0.15	0.15	1.00	1.00
TOTAL ENGINEERING	**18.92**	**18.92**	**31.08**	**31.08**	**50.00**	**50.00**

FTEs by Fund by Department, continued

	Operating		CIP		Total	
Finance	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Accountant	1.00	1.00	0.00	0.00	1.00	1.00
Accounting Assistant II	2.00	2.00	0.00	0.00	2.00	2.00
Accounting Supervisor	2.00	2.00	0.00	0.00	2.00	2.00
Accounting Technician	2.00	2.00	0.00	0.00	2.00	2.00
Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Assistant Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Budget and Treasury Manager	1.00	1.00	0.00	0.00	1.00	1.00
Controller	1.00	1.00	0.00	0.00	1.00	1.00
Director of Finance/Treasurer	1.00	1.00	0.00	0.00	1.00	1.00
Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Rate and Debt Manager	1.00	1.00	0.00	0.00	1.00	1.00
Senior Accountant	3.00	3.00	0.00	0.00	3.00	3.00
Senior Management Analyst	2.00	2.00	0.00	0.00	2.00	2.00
TOTAL FINANCE	**19.00**	**19.00**	**0.00**	**0.00**	**19.00**	**19.00**

	Operating		CIP		Total	
General Counsel	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Assistant/Deputy General Counsel	1.00	1.00	0.00	0.00	1.00	1.00
General Counsel	1.00	1.00	0.00	0.00	1.00	1.00
Legal Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Office Assistant II	1.00	1.00	0.00	0.00	1.00	1.00
TOTAL GENERAL COUNSEL	**4.00**	**4.00**	**0.00**	**0.00**	**4.00**	**4.00**

	Operating		CIP		Total	
General Manager	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Assistant General Manager	1.50	1.50	0.00	0.00	1.50	1.50
Clerk of the Board	1.00	1.00	0.00	0.00	1.00	1.00
Deputy Clerk of the Board	1.00	1.00	0.00	0.00	1.00	1.00
Deputy General Manager	1.00	1.00	0.00	0.00	1.00	1.00
Executive Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
General Manager	1.00	1.00	0.00	0.00	1.00	1.00
Government Relations Manager	1.00	1.00	0.00	0.00	1.00	1.00
Human Resources Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Human Resources Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Human Resources Manager	1.00	1.00	0.00	0.00	1.00	1.00
Legislative Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Safety Officer	1.00	1.00	0.00	0.00	1.00	1.00
Senior Human Resources Analyst	1.00	1.00	0.00	0.00	1.00	1.00
TOTAL GENERAL MANAGER	**14.50**	**14.50**	**0.00**	**0.00**	**14.50**	**14.50**

FTEs by Fund by Department, continued

	Operating		CIP		Total	
MWD Program	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Administrative Assistant	0.25	0.25	0.00	0.00	0.25	0.25
Assistant General Manager	0.50	0.50	0.00	0.00	0.50	0.50
Assistant Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Director of the MWD Program	1.00	1.00	0.00	0.00	1.00	1.00
Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Senior Water Resources Specialist	1.00	1.00	0.00	0.00	1.00	1.00
TOTAL MWD PROGRAM	**4.75**	**4.75**	**0.00**	**0.00**	**4.75**	**4.75**

	Operating		CIP		Total	
Operations and Maintenance	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Asset Management Specialist I	0.05	0.05	0.95	0.95	1.00	1.00
Asset Management Specialist II	1.00	1.00	0.00	0.00	1.00	1.00
Corrosion Control Supervisor	0.80	0.70	0.20	0.30	1.00	1.00
Corrosion Control Tech II	0.90	0.85	0.10	0.15	1.00	1.00
Director of Operations. & Maintenance	1.00	1.00	0.00	0.00	1.00	1.00
Electrical/Instrumentation Supervisor	0.90	0.90	0.10	0.10	1.00	1.00
Electrical/Instrumentation Tech I	1.99	2.00	0.01	0.00	2.00	2.00
Facilities Services Technician	1.00	1.00	0.00	0.00	1.00	1.00
Fleet Mechanic II	1.84	1.72	0.16	0.28	2.00	2.00
Maintenance Technician	4.40	4.42	0.60	0.58	5.00	5.00
Maintenance Worker I	4.40	4.21	0.60	0.79	5.00	5.00
Maintenance Worker II	3.36	3.08	0.64	0.92	4.00	4.00
Management Analyst	1.99	1.99	0.01	0.01	2.00	2.00
Office Assistant I	0.50	0.50	0.00	0.00	0.50	0.50
Operations & Maintenance Manager	3.00	3.00	0.00	0.00	3.00	3.00
Principal Asset Management Specialist	0.74	0.70	0.26	0.30	1.00	1.00
Principal Water Resources Specialist	0.70	0.70	0.30	0.30	1.00	1.00
Rotating Equipment Supervisor	0.94	1.00	0.06	0.00	1.00	1.00
Rotating Equipment Tech I	0.95	1.00	0.05	0.00	1.00	1.00
Rotating Equipment Tech II	1.89	1.88	0.11	0.12	2.00	2.00
SCADA Specialist	1.40	1.40	0.60	0.60	2.00	2.00
SCADA Supervisor	0.90	0.90	0.10	0.10	1.00	1.00
Senior Corrosion Conrol Technician	0.90	0.85	0.10	0.15	1.00	1.00
Senior Electrical/Instrumentation Technician	3.64	3.77	0.36	0.23	4.00	4.00
Senior Fleet Mechanic	0.90	0.85	0.10	0.15	1.00	1.00
Senior Maintenance Technician	8.42	8.12	1.58	1.88	10.00	10.00
Senior Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Senior Office Assistant	2.00	2.00	0.00	0.00	2.00	2.00
Senior Rotating Equiment Technician	4.75	4.94	0.25	0.06	5.00	5.00
Senior SCADA Specialist	0.75	0.75	0.25	0.25	1.00	1.00

FTEs by Fund by Department, continued

	Operating		CIP		Total	
Operations and Maintenance cont.	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Senior System Operator	8.81	8.50	1.19	1.50	10.00	10.00
Supervising Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
System Maintenance Supervisor	1.77	1.67	0.23	0.33	2.00	2.00
System Operator I	3.84	3.81	0.16	0.19	4.00	4.00
System Operator II	1.79	1.76	0.21	0.24	2.00	2.00
Systems Operations Supervisor	0.86	0.83	0.14	0.17	1.00	1.00
Water Resources Specialist	1.00	1.00	0.00	0.00	1.00	1.00
TOTAL OPERATIONS AND MAINTENANCE	**77.08**	**75.85**	**9.42**	**10.65**	**86.50**	**86.50**

	Operating		CIP		Total	
Public Outreach and Conservation	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Director of Public Outreach & Conservation	1.00	1.00	0.00	0.00	1.00	1.00
Management Analyst	1.00	1.00	0.00	0.00	1.00	1.00
Office Assistant I	1.00	1.00	0.00	0.00	1.00	1.00
Principal Public Affairs Representative	2.00	2.00	0.00	0.00	2.00	2.00
Principal Water Resources Specialist	1.00	1.00	0.00	0.00	1.00	1.00
Public Affairs Representative I	2.90	2.90	0.10	0.10	3.00	3.00
Public Affairs Representative II	1.56	1.56	0.44	0.44	2.00	2.00
Public Affairs Supervisor	1.75	1.75	0.25	0.25	2.00	2.00
Senior Public Affairs Representative	1.00	1.00	0.00	0.00	1.00	1.00
Senior Water Resources Specialist	1.00	1.00	0.00	0.00	1.00	1.00
Water Resources Specialist	3.00	3.00	0.00	0.00	3.00	3.00
TOTAL PUBLIC OUTREACH AND CONSERVATION	**18.21**	**18.21**	**0.79**	**0.79**	**19.00**	**19.00**

	Operating		CIP		Total	
Water Resources	**FY 20**	**FY 21**	**FY 20**	**FY 21**	**FY 20**	**FY 21**
Administrative Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Assistant Management Analyst (LDE)	0.05	0.05	0.95	0.95	1.00	1.00
Director of Water Resources	0.95	0.95	0.05	0.05	1.00	1.00
Engineer (P.E.)	0.50	0.50	0.50	0.50	1.00	1.00
Management Analyst	1.00	1.00	1.00	1.00	2.00	2.00
Principal Engineer	0.80	0.80	0.20	0.20	1.00	1.00
Principal Water Resources Specialist	4.40	4.50	0.60	0.50	5.00	5.00
Senior Management Analyst	0.10	0.10	0.90	0.90	1.00	1.00
Senior Office Assistant	1.00	1.00	0.00	0.00	1.00	1.00
Senior Water Resources Specialist	3.00	3.55	2.00	1.45	5.00	5.00
Water Resources Manager	2.00	2.00	0.00	0.00	2.00	2.00
Water Resources Specialist	2.00	2.00	0.00	0.00	2.00	2.00
TOTAL WATER RESOURCES	**16.80**	**17.45**	**6.20**	**5.55**	**23.00**	**23.00**
GRAND TOTAL	**207.98**	**207.40**	**48.52**	**49.10**	**256.50**	**256.50**

This page intentionally left blank

Capitalized Overhead

Capitalized Overhead are those costs that are not directly attributable to specific Capital Improvement Program (CIP) projects but rather are in the nature of generalized, indirect support of the CIP. For example, employees in support departments, such as Administrative Services and Finance spend time supporting activities that benefit both the operating budget programs as well as the CIP. By using a capitalized overhead allocation, some of these labor costs are appropriately charged to the CIP. Costs for other items such as insurance premiums, utilities, computer systems, services, and building maintenance are also expensed to the CIP via the Capitalized Overhead Allocation.

Capitalized Overhead costs can be categorized as either fixed or variable. Certain labor costs tend to be variable in that they rise or fall somewhat proportionately with CIP activity. Costs for other items such as electricity, telephone, computer systems, and building maintenance are fixed in that there is little, if any, correlation between the amount of these costs and the size of the CIP. In budget periods where the CIP is large, it is appropriate that more of these fixed costs are allocated to it; conversely, a smaller CIP will carry less of these fixed costs, resulting in a greater allocation to the Operating Departments' budget.

Over the past five years, there has been a transition from an agency with a large CIP that designs and constructs facilities to one that operates and maintains them. In Fiscal Years 2020 and 2021, the adopted budget includes six new CIP projects that will require additional dedicated resources from support departments resulting in an increase to capitalized overhead versus the prior period. Table 1 reflects the historical change in capitalized overhead.

Table 1: Capitalized Overhead

	FYs 16&17 Budget	FYs 18&19 Budget	FYs 20&21 Adopted	Variance	% Variance
Administrative Services	$ 3,144,199	$ 2,927,126	$ 3,154,828	$ 227,702	8%
Finance	2,219,872	2,149,782	2,149,049	(733)	-
General Counsel	635,716	755,375	819,966	64,591	9%
General Manager & Board of Directors	496,178	1,068,809	1,640,102	571,293	53%
Public Outreach & Conservation	281,852	236,501	236,504	3	-
TOTAL CAPITALIZED OVERHEAD	**$ 6,777,817**	**$ 7,137,593**	**$ 8,000,449**	**$ 862,856**	**12%**

This page intentionally left blank

Sources and Uses Definitions

This section provides background on the Sources and Uses of Funds that are shown in the Financial Summaries Section and the Sources and Uses Section of this document. Funds are listed first, followed by the sources and then uses of funds.

Funds - Each of the funds within the Water Authority is designed to serve a specific purpose/function and are discussed below.

CONSTRUCTION FUND

The Construction Fund holds the proceeds from long-term and short-term debt. Investment earnings from the fund remain in the fund and may only be used for construction expenditures.

DEBT SERVICE RESERVE FUND

The Debt Service Reserve Fund was created to hold the required legal reserve for Water Authority debt issues. Such reserves are held for the purpose of making an issue's annual debt service payments in the event that the Water Authority should be unable to make such payments. The reserve requirement is held in this fund until it is expended, generally to fund the last payment of the issue. Interest earned on the Debt Service Reserve Fund is transferred into the Operating Fund and is not restricted.

EQUIPMENT REPLACEMENT FUND

In 2003, the Board separated the Equipment Replacement Fund from the Operating Fund. The Equipment Replacement Fund is funded, as needed, by annual draws from the Operating Fund per depreciation schedules for small capital equipment, such as computers, vehicles and the Supervisory Control and Data Acquisition (SCADA) system, to replace equipment that has reached the end of its useful life.

OPERATING FUND

The Operating Fund holds the Water Authority's working capital and emergency operating reserve. The Water Authority's water rate structure, adopted in January 2003, significantly increased the predictability of cash flows. In April 2003, the Water Authority amended its Operating Fund policy from a 60-day minimum balance of average annual operating expenditures to a maximum balance of 45 days of average annual operating expenditures. Common to both policies is a requirement that $5.0 million of such calculated amount must be designated and held available for emergency repairs to the Water Authority's system due to unforeseen events.

As a part of the amended policy, the Equipment Replacement Fund was removed from the Operating Fund, and established as a separate fund.

Working capital ensures that even with a mismatch of cash receipts and disbursements, the Water Authority will have at least 45 days of operating funds on hand at all times. Given the short-term nature of this fund, liquidity of investments is critical and is ensured by investing the Operating Fund on a monthly basis to cover water purchases and ongoing cash disbursements.

PAY-AS-YOU-GO (PAYGO) FUND

In Fiscal Year 1990, the Water Authority established a Pay-As-You-Go (PAYGO) fund to serve as a mechanism to collect Capacity Charges and Water Standby Availability Charges to be used to pay for the cash portion of the Capital Improvement Program (CIP). The funds are dedicated for construction outlays, as well as debt service. The PAYGO Fund's average maturity is correlated to the CIP cash requirements that are not funded through other sources. The funds are generally invested for an average of one to three years. The fund also receives Contributions in Aid of CIP (CIAC) from the Water Authority's member agencies in cases where the Water Authority constructs a project on the behalf of the member agency.

RATE STABILIZATION FUND (RSF)

In Fiscal Year 1990, the Water Authority established the Rate Stabilization Fund (RSF) for the purpose of collecting amounts of water revenues greater than expenditures in years of strong water sales. These funds can then be used to mitigate "rate shock" in years of weak water sales and/or to manage debt service coverage.

In August 2006, the Board adopted new policies that govern the RSF balances. The new policy replaces the old policy of setting a minimum and maximum balance with a target and a maximum balance. The new RSF target balance is equal to the financial impact of 2.5 years of wet weather and the maximum fund balance is set equal to the financial impact of 3.5 years of wet weather. The effect of this policy is to create a target for fund balances that is tied to the real financial impacts that the fund is designed to protect against; and provides financial protection against drought-induced reductions in water sales. In 2019, the financial impact was revised down from a 25% reduction in water sales to 15% effective Calendar Year 2021.

As a general rule, the Water Authority will transfer portions of its net water revenues exceeding its debt service coverage ratio requirement into the RSF. From time to time, as needed, the Water Authority will transfer amounts from its RSF into water revenues to meet its debt service coverage ratio requirements, or to help provide adequate working capital to the Operating Fund. The funds are invested with maturities of one to five years and include restricted cash and investments.

STORED WATER FUND

In 2006, the Board created the Dam-Fill Fund, currently called the Stored Water Fund, as a separate fund to support the purchase of water to fill the various Water Authority reservoirs and fund the Imperial Irrigation District (IID) water prepayment. Planning for this cost requires a significant accumulation of funds, which if included in the RSF or Operating Fund would violate fund balance goals and objectives. The Stored Water Fund is structured as a sinking fund with the sole purpose of providing funds for dam-fill water purchases and the IID water prepayment.

Sources of Funds - Sources of funds includes operating revenues and capital contributions. In addition to water sales, operating revenues include investment income, infrastructure access charges, property taxes and in-lieu, and hydroelectric revenue.

OPERATING REVENUE

Operating revenue is made up of Water Sales, Investment Income, Infrastructure Access Charges, Property Taxes and In-Lieu, Hydroelectric Revenue, and other income.

WATER SALES

Water sales revenue, as shown, is net of evaporation and seepage water losses, the Water Authority's Local Water Supply Development (LWSD) credits and Metropolitan Water District's (MWD's) Local Resource Program (LRP), Surface Storage Operating Agreement (SSOA), and Groundwater Resources Program (GRP) credits.

Water sales projections are derived from municipal and industrial (M&I) demand forecasts prepared using the CWA-MAIN Water Demand Forecasting model, a forecast of agricultural demand, and projected development and use of local supplies. Water Authority long-term forecasts utilize San Diego Association of Governments (SANDAG) demographic projections and assume long-term average weather.

Effective January 1, 2003, the Water Authority's Board implemented a new rate structure designed to more effectively allocate the cost of service to its customers and to increase the proportion of revenues collected by fixed charges. The new rate categories include:

- Fixed Storage and Customer Service Charges - fixed charges that enable the Water Authority to increase its coverage of fixed expenditures by fixed revenues, which is desirable from a credit rating agency perspective.
- Variable Transportation, Melded M&I Treatment and Melded M&I Supply Rates.
- Agricultural customers pay the Transportation Rate and the Customer Service Charge. Agricultural water users have elected to receive a reduced level of service during periods of supply restrictions and in and in return for excluding the cost of the Emergency Storage Project (ESP) from their water rate.
- M&I customers pay the Transportation Rate, the Customer Service Charge, and the Storage Charge, which funds the ESP.

In March 2015, the Water Authority's Board approved the creation of a new fixed Supply Reliability Charge to be paid by M&I customers. This charge is described in more detail in the Rate Categories section of this appendix.

INVESTMENT INCOME

The Water Authority receives a significant amount of revenue from investing its fund balances. Investment income on the cash balances in the Operating Fund, Rate Stabilization Fund, and Debt Service Reserve Fund is available to fund general Water Authority operating expenditures. The PAYGO Fund investment income is restricted to pay for capital expenditures or debt service. The Construction Fund investment income is used to fund construction expenditures and is included as part of the available funds, thus reducing the issuance sizing accordingly.

INFRASTRUCTURE ACCESS CHARGES (IAC)

In June 1998, the Infrastructure Access Charges (IAC) was adopted by the Board to provide an additional source of fixed revenue to help stabilize the Water Authority's revenues. By increasing fixed revenues, the IAC helps to mitigate water sales revenue volatility that can result from sudden changes in water demand/availability and/or economic cycles.

The IAC is a fixed charge that is levied on all retail water meters within the Water Authority's service area. The IAC maintains a minimum ratio of projected fixed revenues to projected fixed expenditures of 25% in any future fiscal year, excluding fixed water rate revenues. Fixed costs include, but are not limited to, annual debt service payments, PAYGO capital, and 80% of annual O&M expenditures. The estimate of the minimum level of required fixed revenues will be increased by 10% to provide increased assurance that actual fixed revenues will be at least 25% of actual fixed expenditures.

PROPERTY TAXES

The Water Authority is authorized under its State County Water Authority Act (Act) to levy taxes on all taxable property within its boundaries for the purpose of carrying on its operations and paying its obligations, subject to certain limitations in the Act, the Revenue and Taxation Code, and the California Constitution.

Property taxes levied are billed and collected by the County of San Diego and are remitted to the Water Authority throughout the year. The tax rate set by the Water Authority's Board of Directors is based upon the assessed valuation of taxable property within the Water Authority's service area and debt service payments for interest and principal. The San Diego County Assessor determines property valuation.

IN-LIEU CHARGES

Annually, the Water Authority receives an allocation of property taxes from the State of California collected and remitted through the County. This allocation (1% State Allocation) was put into place to assist special districts, which were adversely impacted from the implementation of Proposition 13.

The basis of the allocation was the amount of secured taxes the Water Authority was collecting in 1978-1979, at which time the City of San Diego was paying certain secured taxes directly to the Water Authority, in-lieu of them being collected via the tax roll. As a result, the initial basis for the allocation of taxes to the Water Authority was understated.

Each year, the Water Authority calculates the amount of the In-Lieu Charge due from the City of San Diego in accordance with Resolution 87-21, which established an annual charge for member agencies that made "In-Lieu" payments for taxes levied for "General Purposes" in fiscal years preceding 1978-1979.

OTHER INCOME

Other income includes Build America Bonds subsidy, encroachment permits, easements, gain/loss on sale of assets, delinquency fees, plan-check reimbursements, and operating grants.

Rate Categories - The water rate categories are discussed in detail below.

CUSTOMER SERVICE CHARGE

The Customer Service Charge is set to recover costs that are necessary to support the functioning of the Water Authority and to develop policies and implement programs that benefit the region as a whole. The Customer Service Charge is a fixed charge, which is allocated among the member agencies

on the basis of each agency's three-year rolling average of all deliveries (including all users, member agencies, and third-party wheeling throughput).

MELDED MUNICIPAL AND INDUSTRIAL (M&I) SUPPLY

The per-acre-foot Melded Untreated M&I Supply Rate recovers the cost of water to the Water Authority. The melded supply rate includes the costs of water purchased from MWD, IID and Poseidon, the costs of water supplies from the canal lining projects, the MWD wheeling costs for non-MWD supplies, and system losses. In addition, the rate recovers certain fixed costs associated with the Quantification Settlement Agreement (QSA), and may recover costs of certain operating budget expenditures associated with the procurement of water and wheeling.

A large component of the Melded Untreated M&I Supply Rate is MWD's water supply rates. In 2003, MWD created a new water rate structure designed to better allocate the cost of services to the fees and charges designed to recover these costs. The structure applies to full cost "firm" supplies provided by MWD and replaced the previous "postage stamp" rate for this class of service. The new structure unbundles or itemizes the cost elements of water supply into transportation, power, and treatment (included in the Melded M&I Treatment Rate), and establishes a two-tiered pricing (inclining block) structure for water supplies.

MWD member agencies were asked to make ten-year financial commitments — termed "purchase orders" — to purchase at least 60% of each agency's maximum historic annual firm (base) demand for MWD water. In exchange, the agency may purchase up to 90% of its base demand at the preferable Tier 1 rate. The Water Authority's exposure to Tier 2 rates has decreased as annual deliveries from Poseidon, its water transfer with IID and the canal lining projects increase. The structure maintains a "postage stamp" approach for discount water supplies, such as agricultural, or groundwater replenishment deliveries.

MELDED MUNICIPAL AND INDUSTRIAL (M&I) TREATMENT

Effective January 1, 2006, the Water Authority implemented a melded treatment rate. The Melded Municipal and Industrial Treatment Rate is set to recover the costs of treating water for the Water Authority and may include costs of purchasing treated water from MWD, Poseidon and the Levy treatment plants and may recover certain other costs associated with the provision of treated water.

MWD CAPACITY CHARGE

The Capacity Charge formerly known as the Capacity Reservation Charge is a fixed charge levied on an agency's maximum daily flows over the three previous fiscal years. It recovers the cost of providing peak capacity within the distribution system, and is designed to encourage member agencies to shift demands and avoid placing large daily peaks on the MWD system during the summer months. Daily flow measured between May 1 and September 30 for purposes of billing the Capacity Charge will include deliveries (except long-term seasonal storage deliveries) made by MWD to a member agency or member agency customer including water transfers, exchanges and agricultural deliveries.

As part of a separate surface reservoir operating agreement to manage seasonal peaking, the Water Authority is expected to reserve its full available capacity. The Water Authority's Board has directed that the Capacity Charge be recovered proportionally based on a five-year rolling average of member agency flows during coincident peak weeks.

MWD READINESS-TO-SERVE CHARGE (RTS)

The Readiness-to-Serve (RTS) Charge recovers a portion of costs associated with standby and peak conveyance capacity, and system emergency storage capacity. MWD passes these costs to its member agencies based upon the member agency's share of the ten-year rolling average firm water deliveries. This ensures that all member agencies pay a share of the fixed costs necessary to meet existing demand for MWD's water.

The MWD Standby Charge revenues, which MWD collects from ratepayers in the San Diego County Water Authority service area, offset the RTS charge paid by the Water Authority.

STORAGE CHARGE

The Storage Charge is a fixed charge set to recover costs associated with the Emergency and Carryover Storage Programs. Allocation of the Storage Charge is based on all non-agricultural water deliveries and is allocated among the member agencies using a pro rata share of each agency's three-year rolling average of non-agricultural deliveries (including all users, member agencies, and third-party wheeling throughput).

SUPPLY RELIABILITY CHARGE

The Supply Reliability Charge is a fixed charge set to recover a portion of the fixed costs associated with the Carlsbad Desalination Plant and IID water transfer costs. The revenue collected through this charge will reduce/offset portions of the cost of desalinated water and IID transfer water that are collected through the Melded M&I Supply Rate. The Supply Reliability Charge is set equal to the difference between the supply cost of desalination and IID transfer water purchases and a like amount of water purchased at the MWD Tier 1 rate multiplied by 25%. Allocation of this charge is based upon member agencies share of the rolling five-year average M&I deliveries.

TRANSITIONAL SPECIAL AGRICULTURAL WATER RATE PROGRAM

In October 2008, faced with a prolonged drought, rising water costs and the realization that in the future, any "surplus" water should be stored in its own regional storage portfolio in order to meet variable municipal and industrial water demands, the MWD Board voted to terminate the Interim Agricultural Water Program (IAWP) through a five-year phase-out of the program resulting in termination December 31, 2012.

In response to MWD's phase-out of IAWP, the Water Authority Board in October 2008 approved the Transitional Special Agricultural Water Rate (TSAWR) and formed a SAWR Board Workgroup to develop a recommendation for a permanent program. In March 2010, the Board approved the Workgroup recommendation for a permanent SAWR that would begin January 1, 2013 and only include the storage charge exemption. With the SAWR program set to switch from the transitional program to the permanent program on January 1, 2013, members of the agricultural community raised concerns over the financial impacts of the change. In April 2012, April 2014 and March 2015, the Board voted to extend the TSAWR program with the current expiration date set at December 31, 2020.

TRANSPORTATION

The Transportation Rate is a uniform rate set to recover capital, operating, and maintenance costs of the Water Authority's aqueduct system including all facilities used to physically transport the water to member agency meters. The Transportation Rate is charged to each acre-foot of water as delivered by the Water Authority through Water Authority facilities. All users, member agencies, and third-party wheelers will pay the Transportation Rate.

Capital Contribution Definitions

Capital contributions are independent of water use and are fixed to recover costs associated with new system capacity/reliability or maintaining existing system capacity/reliability. The use of capital contributions revenue is restricted to paying for the CIP projects and is deposited in the PAYGO Fund.

Capital contributions are made up of Capacity Charges (System and Treatment Capacity Charges), CIAC, and Water Standby Availability Charges. These revenue sources are discussed next.

CAPACITY CHARGES

- **System Capacity Charge** - In May 1990, the Water Authority's Board of Directors adopted a System Capacity Charge on all new or larger retail water meters installed. The charge is designed to recover a proportionate share of the capital costs associated with providing services to new connections in the Water Authority's service area. This follows existing Government Code (Section 54991), which states that System Capacity Charges "shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed..." In May 2005, the Board approved a change in the System Capacity Charge calculation methodology, which balances the extra capacity present in the system financed by existing customers with the benefits of use by future customers. Because meter size dictates the maximum water demand of a new customer, the System Capacity Charge is based upon meter size.

- **Treatment Capacity Charge** - In May 2005, the Board also approved the creation of a Treatment Capacity Charge to help fund the Water Authority's regional water treatment facility. The charge recovers a portion of the capital costs from the future users of the facility. Like the System Capacity Charge, the fee is based upon the size of the meter installed.

CONTRIBUTIONS IN AID OF CIP (CIAC)

Grants or contributions from member agencies for capital projects make up CIAC. Typically these revenues are restricted to specific projects/uses. In some instances, a member agency may reimburse the Water Authority for improvements to their system as part of a Water Authority project.

WATER STANDBY AVAILABILITY CHARGES

On April 12, 1990, the Board of Directors adopted Resolution 90-17 for Standby Charges, under Section 45-5.2 of the County Water Authority Act and Article 23 of the Water Authority's Administrative Code. The charge is $10 per acre per year, or $10 for a parcel less than one acre per year. The charge for each parcel that includes more than one acre shall be determined by multiplying the total number of acres in said parcel by $10. The charge is added to the Secured Tax Roll collected via the San Diego County property tax collection process and remitted by the County to the Water Authority. The Water Standby Availability Charge is intended to recover some of the capital costs associated with maintaining the system.

Uses of Funds Definitions

CAPITAL BUDGET

The Water Authority initiated its CIP in 1989 as a long-range plan to ensure that the county's water supply would be reliable. CIP projects are designed to enhance, expand and repair the regional pipeline system, which typically supplies 90% of the county's water.

DEBT SERVICE

The Water Authority uses debt to fund improvements to existing facilities, to fund CIP projects or to refund a previous debt issue (long-term debt only).

QUANTIFICATION SETTLEMENT AGREEMENT (QSA) MITIGATION

The QSA was executed on October 10, 2003 and is related to water transfers and other agreements. As a part of the QSA, the Water Authority participates in a Joint Powers Authority (JPA) with IID and the Coachella Valley Water District to provide for the environmental mitigation of water transfer impacts.

The Water Authority will fund the JPA annually through Fiscal Year 2026 according to a set schedule of payments. Payments are from withdrawals from the QSA Commitment Fund, a fund established by the Board in Fiscal Year 2004 to hold the IID socioeconomic payment. With the final payment completed in December 2006, the fund will sunset and a minor amount of residual interest earnings will be transferred to the Operating Fund. JPA expenditures are funded through the PAYGO fund, and are repaid with interest through the Melded M&I Supply Rate.

In May 2007, the Water Authority entered into a settlement with IID regarding third-party socioeconomic impacts of the QSA water transfers. The settlement includes a series of annual payments to the IID.

Water Authority Energy Program

A significant cost in treating, conveying, and delivering water to our member agencies is related to energy. In the next two-years, it is estimated that the Water Authority will spend approximately $6.7 million on the energy required to keep the agency's water infrastructure operating to meet member agency water supply needs. Recognizing the nexus between water and energy, in June 2019, the Board will consider an updated 2019 Energy Management Policy that focuses on how the Water Authority may lower its operational costs by pursuing alternative renewable energy supplies, and planning for and implementing projects that produce energy revenue while considering the future of California's energy market.

Budget items for energy-related efforts span multiple departments of the Water Authority. These budget items have been collected and presented in the tables below. Table 1 displays the combined energy costs and cost savings generated by solar and battery use offsetting the purchase of energy from SDG&E for energy consumed at Water Authority facilities. Table 2 outlines expenses for energy efforts and projects in the planning stage. Table 3 displays revenue and expenses for energy items in operation. It is critical to recognize that the upfront investment in strategic Energy Management initiatives that leverage the agency's existing infrastructure will produce energy revenue and reduce energy costs well into the future.

Table 1: Water Authority Facility Energy Costs

	FY 20 Adopted	FY 21 Adopted	FYs 20&21 Adopted
Expenses			
Retail Energy	$2,763,000	$2,965,000	$5,728,000
Solar/Battery	493,000	501,000	994,000
TOTAL EXPENSES	**$3,256,000**	**$3,466,000**	**$6,722,000**
Avoided Energy Costs [1]	**$ 256,000**	**$ 263,000**	**$ 519,000**

1. Avoided Energy Costs are a result of cost savings generated by solar/battery use offsetting the purchase of energy from SDG&E.

Table 2: Energy Planning

	FY 20 Adopted	FY 21 Adopted	FYs 20&21 Adopted
Expenses			
Energy Grants and Incentives	$ 10,596	$ 10,785	$ 21,381
Energy Supply and Transmission Planning	141,279	143,820	285,099
Interdepartmental Support	24,724	25,169	49,893
New Energy Initiatives	88,299	89,888	178,187
Regulatory and Legislative Activities	81,235	82,697	163,932
Solar and Battery Systems	7,064	7,191	14,255
TOTAL EXPENSES	**$ 353,197**	**$ 359,550**	**$ 712,747**

The payback for Rancho Peñasquitos Hydroelectric component was eight years. The project went into operation in 2007 and the payback period ended in 2014. The payback period for Olivenhain-Hodges Pumped Storage is nine years, seven months. The payback period for Olivenhain-Hodges Pumped Storage began August 2012 when the facility started commercial operations.

Table 3: Operating

	FY 20 Adopted	FY 21 Adopted	FYs 20&21 Adopted
Revenue			
Boulder Power	$ 125,000	$ 125,000	$ 250,000
Hodges Hydroelectric Power	2,800,000	2,800,000	5,600,000
Rancho Peñasquitos Hydroelectric Power	750,000	750,000	1,500,000
TOTAL REVENUE	**$ 3,675,000**	**$ 3,675,000**	**$ 7,350,000**
Expenses			
Boulder Power	$ 109,400	$ 112,300	$ 221,700
Hodges Pumped Storage Facility (Hydroelectric Only) [1]	1,178,000	1,114,000	2,292,000
Rancho Peñasquitos Pressure Control & Hydroelectric Facility (Hydroelectric Only)	98,000	108,000	206,000
TOTAL EXPENSES	**$ 1,385,400**	**$ 1,334,300**	**$ 2,719,700**
NET	**$ 2,289,600**	**$ 2,340,700**	**$ 4,630,300**

1. Includes labor and benefits, supplies, contract services and utility costs.

Glossary

AB – Assembly Bill

Accrual Basis of Accounting – The basis of accounting under which transactions are recognized when they occur, regardless of the timing of cash receipts and disbursements.

Acre-Foot (AF) – A unit of measure equivalent to 325,900 gallons of water, which meets the need of two average families in and around the home for one year.

ADA – Americans with Disabilities Act

AFO – Acoustic Fiber Optic

APP – Aqueduct Protection Program

Appropriation – An amount of money in the budget authorized by the Board of Directors for expenditure or obligation within organizational units for specific purposes.

Assessed Valuation – An official government value placed upon real estate or other property as a basis for levying taxes.

Assets – Resources owned or held which have monetary and economic value.

Audit - An objective evaluation of the organization's financial records. At the Water Authority these are conducted by an outside accounting firm.

BAB – Build America Bond

Balanced Budget - A budget in which recurring revenues are equal to recurring expenditures. Recurring revenues could equal or exceed recurring expenditures creating a budget surplus.

Bay/Delta – Refers to an environmentally sensitive area of Sacramento/San Joaquin Rivers Delta through which State Water Project water must flow to reach Southern California and other areas.

Bond – A written promise to pay a specified sum of money (called the principal) at a specified date in the future, together with periodic interest at a specified rate. In the budget document, these payments are identified as debt service.

Budget – A balanced financial plan for a given period of time, which includes expenditures and revenues funded through various funds. The budget serves as a financial plan as well as a policy guide, an operations guide, and a communications medium.

Bypass – San Vicente Reservoir Bypass Pipeline

CalPERS – California Public Employee Retirement System

Capital Equipment – Fixed assets such as vehicles, computers, furniture and technical instruments which have a life expectancy of more than three years and a value over five thousand dollars.

Capital Improvement Program (CIP) – A long-range plan for the construction, rehabilitation and modernization of the Water Authority-owned and operated infrastructure.

Capital Outlay – Expenditures which result in the acquisition of, or addition to, fixed assets including land, buildings, improvements, machinery and equipment. Most equipment or machinery is included in the Annual Operating Budget. Capital improvements such as acquisition of land, construction and engineering expenses are included in the Capital Budget.

Capitalized Overhead – Indirect administrative costs in the Operating Budget that benefit the Capital Improvement Program (CIP) that are transferred as capitalized overhead from the Operating to CIP.

Cash Management – A conscious effort to manage cash so that interest and penalties paid are minimized and interest earned is maximized. Funds received are deposited on the day of receipt and invested as soon as the funds are available. The Water Authority maximizes the return on all funds available for investment without sacrifice of safety.

CEQA – California Environmental Quality Act

CFS – Cubic Feet per Second

COPs – Certificates of Participation

CRACA – Comprehensive Reliability and Cost Assessment

CWA-MAIN – County Water Authority-Municipal and Industrial water demand forecasting model

Debt Service – The current year portion of interest costs and current year principal payments incurred on long-term debt issued by the Water Authority.

Disbursements – Payments made on obligations.

DSCR – Debt Service Coverage Ratio

DWR – California Department of Water Resources

Each Parcel of Land – Shall mean each parcel of land assigned a parcel number by the San Diego County Assessor.

Earned Value – A technique for measuring project performance and progress in an objective manner. Combines measurements of scope, schedule, and cost to provide accurate forecasts and performance problems.

EIR/EIS – Environmental Impact Report/Environmental Impact Statement

EPC – Engineering, Procurement and Construction

ESP – Emergency Storage Project

Expenditure – An amount of money disbursed or obligated. Expenditures include current operating disbursements requiring the present or future use of net current assets, debt service and capital improvements.

FCF – Flow Control Facility

Fiscal Year (FY) – The time frame in which the budget applies. This is the period from July 1 through June 30.

Fixed Assets – Long-term tangible assets that have a normal use expectancy of more than three years and do not lose their individual identity through use. Fixed assets include buildings, equipment, and improvements other than buildings and land.

FRS – Flow Regulatory Structure

FTE – Full Time Equivalent

Generally Accepted Accounting Principles (GAAP) – Uniform minimum standards of, and guidelines for, external financial accounting and reporting. They govern the form and content of the basic financial statements of an entity. GAAP encompasses the conventions, rules and procedures necessary to define accepted accounting practices at a particular time. They include not only broad guidelines of general application, but also detailed practices and procedures. The primary authoritative statement on the application of GAAP to state and local governments is Government Accounting Standards Board (GASB) pronouncements and Financial Accounting Standards Board (FASB) pronouncements. GAAP provides a standard by which to measure financial presentations.

GIS – Geographic Information System. An organized collection of computer hardware, software, and geographic data designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.

GPS – Global Positioning System

GRC – General Rate Case

GRP – Groundwater Resources Program

HCP – Habitat Conservation Plan

Hodges Hydro – Lake Hodges Pumped Storage Facility

IAC – Infrastructure Access Charge

IAWP – Interim Agricultural Water Program

IID – Imperial Irrigation District

IRP – Integrated Resources Plan. An open and participatory planning process which takes a broad view of all water resource options available to the region and searches for the right combinations of investments to achieve water supply objectives in a cost conscious and environmentally responsible manner.

IRWM – Integrated Regional Water Management program

JPA – Joint Powers Authority

LDE – Limited Duration Employee

Leases and Rentals – This includes costs to rent equipment, copy machines, temporary easements and other items.

LISA – Local Investigations and Study Assistance program

LMSE – La Mesa Sweetwater Extension Pipeline

LRP – MWD's Local Resource Program

LWSD – Water Authority's Local Water Supply Development

Master Plan – Regional Water Facilities Master Plan

ME – Meter Equivalent

MWD - Metropolitan Water District of Southern California (MWD) – is a consortium of 26 cities and water districts that provides drinking water to nearly 19 million people in parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino and Ventura counties.

MG – Million Gallon

MGD – Million Gallons per Day

MOU – Memorandum of Understanding

MW – Megawatt

NCCP – Natural Communities Conservation Plan

OMWD – Olivenhain Municipal Water District

OPEB – Other Post-Employment Benefits

Operating Fund - The Water Authority's operating fund is similar to a general fund at other governmental agencies.

Operating Departments Budget – The normal, ongoing operating costs incurred to operate the Water Authority.

Other Expenses – This includes employee mileage reimbursement, travel, training, tuition refunds, suggestion awards, professional association dues, memberships, and other miscellaneous items.

PCCP – Pre-stressed Concrete Cylinder Pipeline

Poseidon – Poseidon Resources (Channelside) LP developer and owner of the Carlsbad Desalination Plant

QSA – Quantification Settlement Agreement

QSA JPA– Quantification Settlement Agreement Joint Powers Authority

Rancho Hydro – Rancho Peñasquitos Pressure Control and Hydroelectric facility

RCC – Roller Compacted Concrete

Reliability – Consistently providing a water supply that adequately supports the regional economy.

Revenue – Income generated by taxes, notes, bonds, investment income, land rental, and user charges.

Revenue Bonds – A bond issued by an agency commissioned to finance the building or improving of a public property, such as a bridge or toll road, the revenue from which will pay for the bond.

ROW – Right of Way

RSF – Rate Stabilization Fund

RTS – Readiness to Service charge

SANDAG – San Diego Association of Governments

SAWR – Special Agricultural Water Rate

SCADA – Supervisory Control and Data Acquisition

SCOOP – Small Contractor Outreach Opportunity Program

SD – San Diego

SDCWA – San Diego County Water Authority

Services – The normal, ongoing operating costs incurred to operate the Water Authority that are procured from companies outside of the Water Authority. Examples include repair, maintenance, auditing, appraisals, custodial, security, engineering, drafting and design.

SR – State Route

SSOA – Surface Storage Operating Agreement

Total Capital Budget – The total budget requests for construction projects and associated expenses.

Total Water Authority Budget – The sum of the total Operating Budget, Debt Service, Water Purchases, Capital Budget and Equipment Replacement.

Treated Water – Water delivered to member agencies which has been treated by coagulation, sedimentation, filtration and chlorination.

UAL - Unfunded Accrued Liability

UWMP – Urban Water Management Plan

Utilities – This includes gas, electricity, water, sewer, and telephone.

VFD – Variable Frequency Drive systems

Value Engineering – Used to analyze design and construction projects to help achieve balance between require functions, performance, quality, safety, and scope with the cost and other resources necessary to accomplish those requirements. The proper balance results in the maximum value for the project.

Water Authority – San Diego County Water Authority

Water Purchases – The cost of purchasing water from other agencies.

WD – Water District

Working Capital - The capital, or relatively liquid portion of an organization's total capital available for meeting its' obligations. It is the difference between current assets and current liabilities.

WPA – Carlsbad Seawater Desalination Project Water Purchase Agreement between The San Diego County Water Authority and Poseidon Resources (Channelside) LP dated December 20, 2012

WTP – Water Treatment Plant

Classification and Salary Schedule

Section 2.16.060(d) of the Administrative Code requires that "...The Personnel Officer may make additions or modifications to the classification and salary schedule, to add, delete or modify positions and establish corresponding salary bands or ranges, subject to ratification by the Board not later than the time of approval of the next bi-annual budget, provided that the addition or modification does not increase the bi-annual budget for the department or office affected by the addition or modification..."

The Classification and Salary Schedule which follows reflects the changes made during Fiscal Year 2019.

SAN DIEGO COUNTY WATER AUTHORITY
CLASSIFICATION AND SALARY SCHEDULE
FY2019-2020

BOARD APPOINTED	RANGE
Acting General Manager	X
General Counsel	Y
General Manager	Z

EXECUTIVE MANAGEMENT	RANGE
Assistant General Manager	B
Deputy General Manager	A
Director of Administrative Services	D
Director of Engineering	C
Director of Finance/Treasurer	C
Director of MWD Program	D
Director of Operations and Maintenance	C
Director of Public Outreach and Conservation	D
Director of the Colorado River Program	D
Director of Water Resources	C

SENIOR MANAGEMENT	RANGE
Administrative Services Manager	H
Assistant General Counsel	E
Budget and Treasury Manager	G
Controller	F
Deputy Director of Engineering	E
Engineering Manager	F
Government Relations Manager	G
Human Resources Manager	G
Information Security Officer	G
Information Systems Manager	G
Operations and Maintenance Manager	F
Public Affairs Manager	H
Right of Way Manager	G
Water Resources Manager	F

CONFIDENTIAL	RANGE
Administrative Assistant	20
Assistant Human Resources Analyst	24
Clerk of the Board	36
Deputy Clerk of the Board	20
Executive Administrative Assistant	27
Human Resources Analyst	25
Human Resources Assistant	20
Legal Administrative Assistant	27
Office Assistant II	09
Senior Human Resources Analyst	33

REPRESENTED EMPLOYEES	RANGE
Accountant	26
Accounting Assistant I	06
Accounting Assistant II	12
Accounting Supervisor	37
Accounting Technician	17
Administrative Assistant	20

REPRESENTED EMPLOYEES, CONTINUED	RANGE
Asset Management Specialist I	24
Asset Management Specialist II	31
Assistant Legislative Analyst	24
Assistant Management Analyst	24
Assistant Water Resources Specialist	24
Assistant Water Resources Specialist (E)	24
Corrosion Control Supervisor	36
Corrosion Control Technician I	18
Corrosion Control Technician II	22
Electrical/Instrumentation Supervisor	36
Electrical/Instrumentation Technician I	20
Electrical/Instrumentation Technician II	28
Engineer (P.E.)	39
Engineer I	25
Engineer II	31
Engineering Technician I	18
Engineering Technician II	22
Facilities Services Technician	25
Fleet Mechanic I	18
Fleet Mechanic II	22
Help Desk Support Specialist	24
Information Systems Analyst	31
Information Systems Supervisor	39
Investment Analyst	35
Legislative Analyst	28
Maintenance Technician	23
Maintenance Worker I	11
Maintenance Worker II	17
Management Analyst	28
Office Assistant I	05
Office Assistant II	09
Principal Asset Management Specialist	42
Principal Engineer	46
Principal Public Affairs Representative	33
Principal Water Resources Specialist	42
Principal Water Resources Specialist (E)	42
Project Scheduler I	31
Project Scheduler II	37
Public Affairs Representative I	23
Public Affairs Representative II	27
Public Affairs Supervisor	35
Purchasing Technician I	20
Purchasing Technician II	24
QSA Outreach Coordinator	39
Rate and Debt Manager	46
Receptionist	09

Revised: 6/27/2019

SAN DIEGO COUNTY WATER AUTHORITY
CLASSIFICATION AND SALARY SCHEDULE
FY2019-2020

REPRESENTED EMPLOYEES, CONTINUED	RANGE
Right of Way Agent	31
Right of Way Supervisor	37
Right of Way Technician Level I	18 (Steps 1-7)
Right of Way Technician Level II	19 (Steps 5-11)
Right of Way Technician Level III	22 (Steps 7-13)
Right of Way Technician Level IV	28 (Steps 6-13)
Rotating Equipment Supervisor	36
Rotating Equipment Technician I	20
Rotating Equipment Technician II	23
Safety Officer	33
SCADA Specialist	28
SCADA Supervisor	36
Senior Accountant	33
Senior Asset Management Specialist	39
Senior Construction Manager	43
Senior Corrosion Control Technician	29
Senior Electrical/Instrumentation Technician	32
Senior Engineer	43
Senior Engineering Technician	29
Senior Fleet Mechanic	27
Senior Information Systems Analyst	35
Senior Legislative Analyst	33
Senior Maintenance Technician	27
Senior Management Analyst	33
Senior Office Assistant	14
Senior Project Scheduler	39
Senior Public Affairs Representative	31
Senior Right of Way Agent	35
Senior Rotating Equipment Technician	32
Senior SCADA Specialist	32
Senior Survey Technician	29
Senior Systems Administration & Support Specialist	30
Senior System Operator	28
Senior Water Resources Specialist	39
Senior Water Resources Specialist (E)	39
Supervising Land Surveyor	37
Supervising Management Analyst	37
Survey Technician	24
System Maintenance Supervisor	33
System Operations Supervisor	37
System Operator I	18
System Operator II	24
Systems Administration & Support Specialist	26
Water Resources Aide	20
Water Resources Specialist	31
Water Resources Specialist (E)	31

OTHER	RANGE
Student Intern (Determined at Hire)	N/A
Student Worker (Fixed at CA Min. Wage)	N/A

Revised: 6/27/2019

This page intentionally left blank

Memorandums, Resolutions, and Ordinances

The following documents include the memorandums to the Board and the Board approved resolutions and ordinances as they relate to the Fiscal Years 2020 and 2021 Budget and the Calendar Year 2020 Rates and Charges. The Cost of Service Study dated June 2019 can be found online in the June 27, 2019, Board Packet (starting at page 55), at: www.sdcwa.org.

Our Region's Trusted Water Leader
San Diego County Water Authority

June 19, 2019

Attention: Administrative and Finance Committee

General Manager's Recommended Budget for Fiscal Years 2020 and 2021. (Action)

Staff recommendations
Staff recommends that the Board formally adopt the General Manager's Recommended Budget for Fiscal Years 2020 and 2021.

Approve adoption of Resolution No. 2019-___, a Resolution of the Board of Directors of the San Diego County Water Authority approving the General Manager's Recommended Budget for Fiscal Years 2020 and 2021, for operations and capital improvements and appropriating $1,687,565,781 consistent with the approved budget.

Alternative
The Committee and the Board may modify the Recommended Budget prior to adoption of the Budget Resolution.

Fiscal Impact
Distributed to the Board on May 23, 2019, the General Manager's Recommended Budget for Fiscal Years 2020 and 2021 included an appropriation of $1,687,565,781. This is allocated amongst the following categories: Water Purchases and Treatment, $1.08 billion; Capital Improvement Program (CIP), $162.2 million; Debt Service, $297.43 million; Quantification Settlement Agreement (QSA) Mitigation, $4.71 million; Operating Departments, $108.50 million; Equipment Replacement, $6.02 million, Grant Expenditures, $26.32 million; and Other Expenditures, $3.88 million.

With the proposed increase in rates and charges being considered at the Public Hearing on June 27, adequate revenues and funding sources are anticipated to be available to meet the budgetary needs for Fiscal Years 2020 and 2021.

Background
The General Manager delivered to the Board and introduced the Recommended Budget to the Administrative and Finance Committee on May 23, 2019. The presentation provided highlights on the accomplishments for the past two-year budget period, the factors impacting the development of the budget, an overview of the budget, and the format for the upcoming budget workshops.

The General Manager's Recommended Budget for Fiscal Years 2020 and 2021 is a reflection of the Water Authority's commitment to continued leadership on water issues statewide, upholding the public trust with our member agencies and community stakeholders, and maintaining operational excellence of the region's large-scale water infrastructure. The recommended budget expands our resources to achieve goals in the 2019-2023 Business Plan and align with Board-adopted fiscal sustainability policies.

Discussion
On June 11 and 13, 2019, the Administrative and Finance Committee considered and discussed the Fiscal Years 2020 and 2021 Recommended Budget. On the first day of budget hearings, presentations on key assumptions utilized to develop the budget were provided on the Water Authority's water sales, capital improvement program, debt service, cyber and facility security, the equipment replacement fund, grants, and enhanced member agency engagement. In addition, an overview of assumptions for operating departments was provided. Directors asked a variety of clarifying questions on water sales, capital improvement program, debt service, and the equipment replacement fund, which staff responded to.

On the second day of budget hearings, presentations were provided on the operating departments. Additionally, staff provided responses to questions received after the first budget hearing on Tuesday.

Following approval of the Budget at the June Board meeting, staff will distribute the final document to the Board by the end of September 2019.

Prepared by: Liana M. Whyte, Budget and Treasury Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Dan Denham, Assistant General Manager
Approved by: Sandra L. Kerl, Acting General Manager

Attachments: Resolution No. 2019-___ Resolution of the Board of Directors of the San Diego County Water Authority Approving the General Manager's Recommended Budget for Fiscal Years 2020 and 2021 for Operations and Capital Improvements and Appropriating $1,687,565,781 consistent with the Approved Budget.

RESOLUTION NO. 2019-_13__

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY APPROVING THE GENERAL MANAGER'S RECOMMENDED BUDGET FOR FISCAL YEARS 2020 AND 2021 FOR OPERATIONS AND CAPITAL IMPROVEMENTS AND APPROPRIATING $1,687,565,781 CONSISTENT WITH THE APPROVED BUDGET

WHEREAS, in accordance with section 2.04.050 of the Administrative Code, the General Manager has prepared, presented, and submitted the General Manager's Recommended Multi-Year Budget for Fiscal Years 2020 and 2021, a copy of which is on file in the Office of the Clerk of the Board ("Recommended Budget");

WHEREAS, the Administrative and Finance Committee reviewed and considered the Recommended Budget during publicly noticed meetings on May 23, June 11, 13, and 27, 2019; and

WHEREAS, based on its review of the recommended budget and the presentations and discussions at its meetings the Administrative and Finance Committee has recommended approval of the Recommended Budget, including recommended operational program additions and modifications, new and revised project budgets within the Capital Improvement Program, and implementation of previously approved compensation plans and employment agreements; and

WHEREAS, the Administrative and Finance Committee also recommended appropriating $1,687,565,781 consistent with the approved budget; and

WHEREAS, on June 27, 2019 the Board of Directors considered the General Manager's Recommended Budget for Fiscal Years 2020 and 2021 and the report and recommendation of the Administrative and Finance Committee;

NOW, THEREFORE, the Board of Directors of the San Diego County Water Authority resolves as follows:

1. The Recommended Budget is approved as the bi-annual budget for Fiscal Years 2020 and 2021.

2. The total amount of $1,687,565,781 is hereby appropriated for the purposes and in the amounts specified in Exhibit A. Expenditures of appropriated funds shall be consistent with the Recommended Budget. Except as provided in this Resolution, no increases or decreases to the budget shall occur except upon prior approval by the Board of Directors.

3. The General Manager has the authority within the Operating Fund balance to make adjustments to employee salaries and benefits. Such adjustments must be consistent with this resolution, the salary schedules, compensation plans and employment agreements in effect on the date of this resolution, and salary schedules, compensation plans, and employment agreements effective after the date of this resolution as approved by the board for represented or unrepresented employees. The General Manager may make and implement further amendments to the Classification and Salary Schedule in accordance with the Administrative Code and other rules and regulations governing the personnel system, provided such adjustments are consistent with the budget controls contained in paragraph 4.

4. The following controls are hereby placed on the use and transfers of the appropriated and budgeted funds:

a. The General Manager is responsible for keeping expenditures within the approved appropriations and budgeted allocations for positions, salaries and benefits, and operational expenditures and may adopt budget policies as necessary to carry out that responsibility. No expenditure of funds shall be authorized unless sufficient funds have been appropriated by the Board or General Manager as described herein.

b. Subject to paragraph d, the General Manager may exercise discretion in administration of the Operating Budget to respond to changed circumstances, provided that any modification in excess of $150,000 requires approval by the Board.

c. Subject to paragraph d, the General Manager may exercise discretion in administration of the Capital Budget to respond to changed circumstances, provided that total expenditures for all CIP projects, in the two fiscal years do not exceed the total appropriations for the Capital Improvement Program in the budget approved in paragraph 1. Addition or deletion of a project or increase in excess of $150,000 to a project budget within the Capital Improvement Program requires approval by the Board. Inclusion of a project in the Capital Improvement Program Budget for planning and environmental review purposes shall not be construed as an irrevocable commitment to the project or implementation. A project shall be subject to revision or deletion from the Capital Improvement Program as necessary to comply with the California Environmental Quality Act. No appropriation under this resolution for a capital project that provides new or expanded service shall be spent for activities other than exempt planning, feasibility, environmental review and other similar purposes until the Board certifies or approves the environmental review document for the project.

d. Increases in the appropriation amount of $1,687,565,781 shall not be effective unless approved by the Board. Addition of personnel positions above the level identified in the budget as approved in paragraph 1 shall not be effective unless approved by the Board. The General Manager may authorize the hiring of temporary or part-time staff as necessary, within the limits imposed by the available expenditure amounts designated in the budget as approved in paragraph 1. This paragraph shall not be construed as a limitation on reclassification or reassignment of positions or other administration of the personnel system consistent with paragraph 3.

e. The General Manager is authorized, subject only to the total appropriation, to exceed the expenditure amount designated for water purchases in the budget as approved in paragraph 1 in order to meet the water demands of the Water Authority.

PASSED, APPROVED AND ADOPTED, this 27th day of June 2019.

AYES: Unless noted below, all Directors voted aye.

NOES: None

ABSTAIN: Kennedy

ABSENT: Heinrichs, Katz, Leonard, Lewinger (P), Murtland (P), and Simpson

Jim Madaffer, Chair

ATTEST:

Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2019- 13 was duly adopted at the meeting of the Board of Directors on the date stated above.

Melinda Nelson
Clerk of the Board

Our Region's Trusted Water Leader
San Diego County Water Authority

June 19, 2019

Attention: Administrative and Finance Committee

Adopt the Water Authority's Rates and Charges for Calendar Year 2020. (Action)

Purpose
To establish rates and charges sufficient to meet the Water Authority's revenue requirements in conformance with state law and board policies.

Staff recommendations

a. Conduct the Public Hearing;

b. Adopt Ordinance No. 2019-__ an ordinance of the Board of Directors of the San Diego County Water Authority setting rates and charges for the delivery and supply of water, use of facilities, and provision of services;

c. Adopt Resolution No. 2019-__ a resolution of the Board of Directors of the San Diego County Water Authority continuing the Standby Availability Charge;

d. Adopt Ordinance No. 2019-__ an ordinance of the Board of Directors of the San Diego County Water Authority amending and restating the System Capacity and Water Treatment Capacity Charges imposed by the Water Authority pursuant to Section 5.9 of the County Water Authority Act;

e. Find the actions exempt from CEQA pursuant to Public Resources Code § 21080(b)(8) and authorize the General Manager to file a notice of exemption.

Alternative
Direct staff to set a different time or date for the public hearing.

Fiscal Impact
The recommended water rates and charges, in combination with reserves, existing taxes, the System Capacity Charge, the Water Treatment Capacity Charge, the Infrastructure Access Charge (IAC), investment income, the Standby Availability Charge, and the Supply Reliability Charge (SRC), are expected to raise revenues sufficient to meet the Water Authority's revenue requirement, bond covenants and other key fiscal policy goals. The recommended M&I total cost of water increase for CY 2020 is $65/AF or 4.8% for untreated water and $69/AF or 4.3% for treated water. These increases are mitigated by a projected draw of approximately $22 million from the Rate Stabilization Fund (RSF) in FY 2019.

Executive Summary

- Treated Water Cost increasing from the CY 2019 rate of $1,617 to $1,686 in CY 2020 rates, a $69 or 4.3% increase.
- Untreated Water Cost increasing from the CY 2019 cost of $1,341 to $1,406 in CY 2020, rates a $65 or 4.8% increase.
- Rate Stabilization Fund: A $22 million drawdown is forecasted in FY 2019, and an additional $38 million drawdown in FY 2020 to offset what would have been higher rate increases.

Background

At the May 23, 2019 Board meeting, staff provided a report on the recommended CY 2020 rates and charges, as well as a draft of Carollo's independent cost of service study. The report not only provided the recommended CY 2020 rates and charges but also discussed the primary drivers behind the recommended increases. The key rate and charge drivers identified in the board report are MWD's supply and transportation rate increases, increased QSA water deliveries, and the reduced water sales environment. The Board memo associated with the report is provided as Attachment A.

Previous Board Actions

On May 23, 2019, the Board received the detailed staff report and Carollo's draft cost of service study recommending the CY 2020 rates and charges, and adopted Resolution 2019-09 setting the time and place for the public hearing on June 27, 2019.

Discussion

The June 27, 2019 Administrative and Finance Committee meeting has been scheduled as the time, date, and place to receive public comments regarding recommended rates and charges, including the information presented in connection with the May 23, 2019 meeting and the additional information provided in this memorandum, and any other matters pertinent to the Board's setting of rates and charges. In addition, upon the Board's May action, the Cost of Service Report from Carollo Engineers was finalized and is provided as Attachment B.

The recommended actions are exempt from CEQA as provided by statute under Public Resources Code §21080(b)(8). This Statutory Exemption is stipulated for actions involving the establishment of water rates, tolls, fares, or other charges for the purpose of meeting operating expenses, including employee wages and benefits; purchasing or leasing supplies, equipment, or materials; meeting financial reserve needs and requirements; or obtaining funds for capital projects within existing service areas. The Acting General Manager is therefore authorized to file a Notice of Exemption pursuant to Public Resources Code §21152(b) and §15061(d) of the State CEQA Guidelines (Title 14, Chapter 3, California Code of Regulations).

The Water Authority has complied with the procedural requirements for continuing the Standby Availability Charge and increasing its rates and charges for water and other services. After consideration of public comments at the Public Hearing on June 27, 2019, the staff recommends that the Board adopt the ordinance setting the water rates and charges for CY 2020.

Prepared by: David Gore, Senior Management Analyst
Reviewed by: Pierce Rossum, Rate and Debt Manager
Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Dan Denham, Assistant General Manager

Attachments:

A. May 15, 2019 Board Memo on setting the public hearing for recommended CY 2020 rates and charges
B. Carollo Engineers' Cost of Service Study dated June 2019
C. Ordinance No. 2019-__ an ordinance of the Board of Directors of the San Diego County Water Authority setting rates and charges for the delivery and supply of water, use of facilities, and provision of services.
D. Resolution No. 2019-__ a resolution of the Board of Directors of the San Diego County Water Authority continuing the Standby Availability Charge.
E. Ordinance No. 2019-__ an ordinance of the Board of Directors of the San Diego County Water Authority amending and restating the System Capacity and Water Treatment Capacity Charges imposed by the Water Authority pursuant to Section 5.9 of the County Water Authority Act;

Attachment A

Our Region's Trusted Water Leader
San Diego County Water Authority

May 15, 2019

Attention: Administrative and Finance Committee

Resolution setting a Public Hearing date for Rates and Charges. (Action)

Purpose
The purpose of this report is to review the recommended rates and charges for calendar year 2020 and to adopt a resolution setting a time and place for a public hearing for the consideration and adoption of the recommended rate and charge increases for water, services and facilities.

Staff recommendation

1. Adopt Resolution Number 2019-__ setting the time and place for a public hearing on June 27, 2019, at or after 9:00 a.m., or as soon thereafter as may practicably be heard, during the Administrative and Finance Committee meeting, to receive comments regarding recommended rates and charges to be effective January 1, 2020.

Alternative
Direct staff to set a different time or date for the public hearing.

Fiscal Impact
The recommended water rates and charges, in combination with reserves, existing taxes, the System Capacity Charge, the Water Treatment Capacity Charge, the Infrastructure Access Charge (IAC), investment income, the Standby Availability Charge, and the Supply Reliability Charge (SRC), are expected to raise revenues sufficient to meet the Water Authority's revenue requirement, bond covenants and other key fiscal policy goals. The recommended M&I total cost of water increase for CY 2020 is $65/AF or 4.8% for untreated water and $69/AF or 4.3% for treated water. In order to mitigate upward rate pressures, a $22 million withdraw from the Rate Stabilization Fund (RSF) is forecast for FY 2019. These increases are further mitigated by a projected RSF draw of approximately $38 million in FY 2020, as well as up to 10,000 AF of Operational Storage.

Executive Summary

- Treated Water Cost increasing from the CY 2019 rate of $1,617 to $1,686 in CY 2020 rates, a $69 or 4.3% increase.
- Untreated Water Cost increasing from the CY 2019 cost of $1,341 to $1,406 in CY 2020 rates, a $65 or 4.8% increase.
- Rate Stabilization Fund: A $22 million drawdown is forecasted in FY 2019, and an additional $38 million drawdown in FY 2020 to offset what would have been higher rate increases.
- Infrastructure Access Charge: For CY 2020, the IAC will increase from its current level of $3.01 per meter equivalent to $3.66 per meter equivalent.
- Supply Reliability Charge: For CY 2020, the SRC will increase from its current level of $30.2M to $37.4M.

Background

Metropolitan Water Rate Increases

On April 10, 2018, MWD's Board of Directors adopted rate and charge increases for calendar years 2019 and 2020. For CY 2020 this resulted in increases of 2.7% and 3.3% to volume-sensitive treated and untreated Full Service MWD supplies, respectively. MWD's non-volume sensitive Readiness-to-Serve (RTS) and Capacity Charges, which are passed straight through to the Water Authority's Member Agencies, increased by 2.3% and 2.3% respectively. While the overall cost of MWD supplies experienced a modest increase, the costs of transporting the Quantification Settlement Agreement (QSA) water to the San Diego region will increase by 6.4% in CY 2020 due to the increases in the System Access Charge and the System Power Charge.

Prudent Financial Management and Long-Range Planning

The Water Authority has a long history of prudent financial planning. In 2006, the Board strengthened the Water Authority's key financial ratios by setting a Senior Lien Debt Service Coverage Ratio (DSCR) target of 1.50x and establishing a target funding level for the RSF that better protects the Water Authority against the financial impact of 2.5 years of wet weather (3.5 years max). These early actions reduced rate and charge volatility, increased protection against wet weather and mandatory water use restrictions, created a transparent and flexible RSF framework, and increased cash funding of the CIP just prior to the great recession of 2008. These early actions helped the Water Authority navigate the recession and continue to support the maintenance of the Water Authority's AAA/Aa2/AA+ credit ratings and access to lower interest rates.

In 2014, the Board, member agencies and Water Authority staff engaged in an 18-month collaborative process that identified issues related to the long-term fiscal sustainability of the Water Authority. Central to this effort was a detailed review of the Water Authority's revenue structure and evaluating potential enhancements that would further strengthen the Water Authority's future fiscal health. One of the key actions taken as part of the fiscal sustainability review was the creation of the Supply Reliability Charge (SRC). This charge, implemented in CY 2016, recognizes the importance of equitably recovering the cost of the Water Authority's investments in long-term water supply reliability in accordance with cost of service principles and California law. As adopted by the Board, the SRC recovers a portion of the water supply costs associated with the Carlsbad Desalination Plant (the Plant) and the Imperial Irrigation District's (IID) water transfer. In addition to recovering a proportionate share of the cost of water supply reliability, the SRC also helps to reduce water sales revenue volatility by increasing the amount of fixed revenues.

In January 2016, the Board adopted the 2015 Long-Range Financing Plan (LRFP). The 2015 LRFP highlights the Water Authority's transition to an operations and asset management focused agency from a construction oriented agency. The baseline $582 million ten-year CIP is a much more modest spending level when compared to the 2008 LRFP. The largest component of the CIP is Asset Management, which makes up more than 40% of the ten-year CIP. The Asset Management program includes the Relining and Pipe Replacement Program and other infrastructure rehabilitation.

The Water Authority's 2015 LRFP requires the revenues of the Water Authority be sufficient to; pay operating expenses, provide for maintenance and repair of facilities, provide for payment of principal and interest on debt, and provide reasonable reserves consistent with bond covenants and sound fiscal management. As a public agency enterprise, the Water Authority does not generate a profit. Revenues are set to meet the reasonably anticipated costs of providing service to the member agencies and do not generate revenues that are unrelated to the accomplishment of the Water Authority's purposes. While there are a large number of assumptions embedded in the 2015 LRFP, the core assumptions are those that have significant financial impacts and include water sales, local supplies, cost of imported water and transportation and the CIP. These assumptions are incorporated into the high and low rate and charge guidance provided in the document.

Comprehensive Cost of Service Reviews

The Water Authority engaged Carollo Engineers (Carollo) to perform a Cost of Service Study to review, calculate, and validate the Recommended Calendar Year (CY) 2020 water rates and charges. In addition to this scope, Carollo was working with the Water Authority to replace the aging Financial Rate Modeling Program (FRMP). In meeting this scope, Carollo delivered an updated rate model and reviewed the Water Authority's existing cost of service methodology and financial model for continued compliance with California legal requirements, as described in the Cost of Service Study Section 2.4, American Water Works Association cost of service standards, industry best practices, and Water Authority Board Policies, as described in the Cost of Service Study Section 2.3. Together, these establish the cost of service standard that is referenced throughout the report.

Water Authority Staff participates with Member Agencies on Cost of Service Activities

Beginning in January 2019, Member Agencies, Water Authority staff and the Cost of Service Consultant have participated in meetings, presentations, and workshops in support of the CY 2020 cost of service and upcoming rates. The six presentations included an overview of the cost of service process, a comprehensive review of water rate methodologies, board policies, and rate compliance with industry standards and law, as well as detailed discussion on rate assumptions that determine the net revenue requirement.

Special Agricultural Water Rate Program

On March 26, 2015, the Board approved the extension of the TSAWR program through December 31, 2020 based on the recommendation to continue the TSAWR program for the next five years and revisit the value of the program in conjunction with the review of the new Supply Reliability Charge. The recommendation recognized: 1) the benefits the M&I customers have been paying for by supporting the TSAWR program occur during supply shortages; 2) the new Supply Reliability Charge allocation methodology is impacted by the treatment of agricultural water demands; and 3) addressing the issue in one-year increments is not efficient and doesn't provide a sufficient planning window for customers. The five-year period will also provide a track record to ascertain what the frequency of shortage cutbacks would be over an extended time period (since the 2009 cutbacks) and allow for a better understanding of the cost and benefits of the program.

Discussion
There are four primary drivers behind the recommended CY 2020 rate and charge increases. The drivers are:

- **MWD Rate and Charge Increases** – The cost of purchasing Full Service Untreated and Treated water increased 3.3% ($24/AF) and 2.7% ($28/AF) respectively. The cost to transport QSA water to the service area increased 6.4% or $29/AF. MWD's Readiness-to-Serve and Capacity Charges both increased 2.3%, with the amount allocated to the Water Authority set at $25.6 million ($12.9 million net Standby Charge credit[1]) and $8.0 million, respectively. Translated to a per acre-foot costs, the RTS and Capacity Charge equate to $342/AF and $106/AF of MWD deliveries, respectively. The RTS allocation is based on the proportion of deliveries over the last ten years, and the Capacity Charge is allocated based on the demand placed on MWD's system during the peak demand day for each of the last three years. As directed by the Board, these charges are passed straight through to Member Agencies and are not part of the Water Authority's net revenue requirement, or reflected in rates and charges.

- **Scheduled Increase in IID Water Transfer Deliveries** – In CY 2020, the IID water transfer deliveries will increase by 32,500 AF, which results in a $13.2M increase in the total cost of water. Deliveries will continue to ramp up through 2021 until the primary transfer volume is stabilized at 200,000 AF.

- **Reduced Water Sales Environment** – It is anticipated that, while the region will continue to experience modest recovery in total demand from the period of emergency water use regulations, water sales are expected to be flat due to member agency utilization of local supplies.

- **Utilization of the Rate Stabilization Fund** - CY 2020 rate and charge increases are being mitigated by a projected $38M draw from the RSF in FY 2020, which results in approximately $95/AF of rate relief. The draw helps offset the net impact of increases to MWD rates, the volumetric increase in the IID transfer, and reduced water sales.

As part of the 2015 LRFP, staff developed a high/low rate and charge forecast to support member agency financial planning efforts. The high/low rate and charge forecasts were based upon scenarios varying the level of water sales, MWD rate and charge increases, and CIP expenditures. The CY 2020 recommended rates and charges are within that guidance. The Water Authority's total cost of untreated water is recommended to increase by 4.8% and the cost for treated water is recommended to increase by 4.3%. It should be noted that the actual cost of water will vary by member agency based upon each agency's fixed charge allocations.

[1] The Standby Charge is collected on property tax rolls. Any Standby Charge amounts collected are applied as a credit against the participating member agency's RTS Charge obligation.

Setting Water Rates and Charges
On an annual basis, the Water Authority staff develops recommended water rates and charges, which it presents to the Board of Directors for adoption. Water rates and charges include the Melded Supply, Melded Treatment, Transportation rates and the Customer Service, Storage and Supply Reliability charges. Each year the Water Authority undertakes the following cost of service analysis to determine water rates and charges.

- Step 1. Establish the revenue requirement—determine the total amount of revenue needed to recover the Water Authority's annual operating (operations and maintenance of facilities, cost of water, treatment costs, etc.) and capital expenditures (cash and short and long-term debt)
- Step 2. Allocate the revenue requirement and offsetting non-commodity revenues (i.e. investment income, property tax, IAC, etc.) to rate categories (Melded Supply, Melded Treatment, Transportation, Storage, Customer Service and SRC) to determine the net revenue requirement for each rate category
- Step 3. Determine rates and charges based upon the net revenue requirements, water sales projections and other key financial management metrics (i.e. senior lien debt service coverage, fund deposits and withdrawals)
- Step 4. Allocate fixed charges (Storage, Customer Service and SRC) to member agencies based on specified allocation methodologies

Consistent with best management practices, the Water Authority retained Carollo to perform a comprehensive and independent Cost of Service Study to determine recommended CY 2020 rates and charges to ensure that they are set in compliance with California legal requirements, cost of service standards, and Water Authority Board policies. The draft Carollo report is provided as Attachment 2.

Description of Recommended Rates and Charges
Table 2 summarizes the Water Authority's recommended CY 2020 rates and charges. A description of the Water Authority's rates and charges is provided in subsequent sections. In addition to the Water Authority's rates and charges shown in Table 2, MWD's RTS and Capacity Charges are passed through to Water Authority member agencies.

Table 2 – Summary of Water Authority Rates and Charges

Water Authority Rates and Charges	CY 2018 Previous	CY 2019 Current	CY 2020 Recommended
Melded Supply Rate ($/AF)	$894	$909	$925
Melded Treatment Rate ($/AF)	$300	$276	$280
Transportation Rate ($/AF)	$115	$120	$132
Untreated Transitional Special Agricultural Water Rate ($/AF)[1]	$695	$731	$755
Treated Transitional Special Agricultural Water Rate ($/AF)[1]	$995	$1,007	$1,035
Infrastructure Access Charge[2]	$3.01/ME[4]	$3.01/ME[4]	$3.66/ME[4]

Customer Service Charge	$26,400,000	$25,600,000	$25,600,000
Storage Charge	$65,000,000	$65,000,000	$65,000,000
Supply Reliability Charge	$28,600,000	$30,200,000	$37,430,000
Standby Availability Charge per parcel or acre, whichever is greater[3]	$10	$10	$10
System Capacity Charge	$5,099/ME	$5,267/ME	$5,301/ME
Treatment Capacity Charge	$141/ME[4]	$146/ME[4]	$147/ME[4]
Annexation Application Fee (Per Application)	$10,340	$10,681	$10,749

[1] Per current Board Policy, TSAWR is set to end December 31, 2020.
[2] Two year ramp up. CY 2021 IAC forecasted at $4.43. In future years the IAC is forecasted to level.
[3] Fiscal Year Charge.
[4] ME means meter equivalent as defined in the resolution establishing the Infrastructure Access Charge.

Table 3 summarizes MWD's rates and charges that the Water Authority passes through to its member agencies.

Table 3 – Summary of Water Authority Pass Through Rates and Charges

MWD Rates and Charges	CY 2018 Previous	CY 2019 Current	CY 2020 Recommended
Untreated Tier 2 Supply Rate $/AF[1]	$781	$817	$842
Replenishment Water Rate Untreated ($/AF)[2]	NA	NA	NA
Replenishment Water Rate Treated ($/AF)[2]	NA	NA	NA
MWD Capacity Charge	$9,902,340	$8,262,020	$8,019,440
Readiness-to-Serve Charge[3]	$16,291,858	$14,870,729	$12,909,485

[1] Agencies exceeding their Tier 1 allocation are subject to the MWD Tier 2 Supply Rate.
[2] Discussions on the future of the replenishment program are continuing.
[3] Fiscal Year Charge. Net of Stand-by-Charge and Admin Fee.

The following rates and charges will be effective July 1, 2019:

Standby Availability Charge. The County Water Authority Act limits the maximum annual Standby Availability Charge to $10 per acre or parcel, whichever is greater. Beginning before November 6, 1996, the Water Authority has determined that the maximum annual Standby Availability Charge should be levied on property within the Water Authority's service area. To provide necessary funding for the CIP, the General Manager recommends that the charge continue at the $10 maximum for fiscal year 2019-2020. The recommended Standby Availability Charge rate would be effective July 1, 2019.

Annexation Application Fee. The Annexation Application Fee recovers the full administrative cost of service associated with an application for annexation and recovers the costs incurred throughout the annexation process. The updated Annexation Processing Fee of $10,749 per application would be effective July 1, 2019.

The following rates and charges are being recommended effective on January 1, 2020:

Melded Untreated Supply Rate (exclusive of TSAWR deliveries). The Melded Untreated Supply Rate (Melded Supply Rate) will be set to recover the costs of purchasing Tier 1 water from MWD, water purchases from IID, payments in connection with the All-American and Coachella Canal lining projects, payments to MWD under the 2003 Exchange Agreement for conveyance of IID and Canal Lining water, desalinated water and the portion of the Water Authority's revenue requirement allocated to the supply rate. The revenue requirement may include other costs specifically associated with the acquisition of the IID supply source, cost recovery for supply costs previously incurred but not charged, reserve withdrawals/deposits and coverage requirements. Table 4 on the following page shows the calculation of the Melded Supply Rate.

Table 4 – Untreated Melded Supply Rate Calculation

	CY 2020
Acre-Foot Sales (000's)	
MWD Tier I Deliveries	37.4
IID Deliveries	192.5
Canal Water Deliveries	77.7
Operational Storage Utilization	10.0
Carlsbad Desalination Production	42.0
TOTAL A/F SALES	**359.6**
Water Purchase Cost (in Millions)	
MWD Tier 1 Water Purchases*	$29.0
IID Water Purchases	223.6
Canal Water Purchases	38.7
Operational Storage Utilization	0.0
Desalinated Water Supply Costs	103.1
Subtotal Water Purchases	**$394.4**
Additional Costs (in Millions)	
Supply Revenue Requirement	$16.8
Pension Liability	0.8
QSA Environmental**	0.0
Subtotal Other Costs	**$17.2**
Offsetting Revenues (in Millions)	
Supply Reliability Charge Revenues	($37.4)
Cash and Reserves	(41.6)
Total Net Supply Costs**	**$332.6**
A/F RATE (Total Net Supply Cost /Total AF Sales)	**$925/AF**

*Includes system losses due to meter inaccuracies of +/-0.5 percent.
** Cost recovery deferred to provide CY 2020 rate relief.

Based upon these options, the Melded Supply Rate would increase from its current level of $909/AF to $925/AF in CY 2020.

Transitional Special Agricultural Water Program Rates.
With the extension of the TSAWR program through December 31, 2020, the untreated TSAWR will be set to MWD's Tier 1 rate and increase from its current level of $731/AF to $755/AF in CY 2020. In addition, the treated TSAWR will increase from $1,007/AF in CY 2019 to $1,035/AF in CY 2020. The TSAWR program rates correspond to a lower level of water supply reliability for its participants.

Melded Treatment Rate. The Melded Treatment Rate will be set to recover the costs of treating water for the Water Authority and may include costs of purchasing treated water from MWD, the Levy and Olivenhain treatment plants, the Water Authority's Twin Oaks Valley Water Treatment Plant, desalinated water costs allocated to this rate and may recover certain other costs associated with the delivery of treated water. For CY 2020, the Melded Treatment Rate will increase from its current level of $276/AF to $280/AF. In CY 2020, the Water Authority is forecasting an increase in treated production from 66,358 AF in CY 2019 to 68,884 AF. This represents a 4% increase in AF, while the Water Authority's related treatment costs are only forecast to increase 1.4%. At these Water Authority treatment levels, Twin Oaks represents a discount to the treatment surcharge of $323/AF levied by MWD (versus the recommended melded rate of $280/AF). Table 5 shows the calculation of the Melded Treatment Rate.

Table 5 – Melded Treatment Rate Calculation

	CY 2020
Acre-Foot Sales (A/F) (000's)*	
MWD	34.0
Water Authority	68.9
Helix	16.0
Carlsbad Desalination Production	42.0
TOTAL A/F SALES	**160.9**
Cost (in Millions)	
MWD	$11.0
Water Authority	20.3
Helix	2.0
Desalinated Water**	11.8
TOTAL TREATMENT COSTS	**$45.1**
A/F RATE (Total Treatment Costs/Total A/F Sales)	**$280/AF**

* Includes treated water deliveries intended for agriculture
**Based on recommended cost of treated water (42,000AF*$280 = $11.8M)

Transportation Rate. The Transportation rate is set to recover capital, operating, and maintenance costs of Water Authority-owned water delivery facilities, including facilities used to physically transport the water to member agency meters. The Transportation Rate is charged to each acre-foot of water delivered by the Authority as it occurs. For CY 2020, the Transportation Rate will increase from its current level of $120/AF to $132/AF.

Infrastructure Access Charge. The infrastructure access charge is imposed on member agencies as a condition of maintaining connections to Water Authority facilities. It is apportioned based on water meters within each member agency. Starting with the CY 2020 rates, the infrastructure access charge will increase as part of a two-year ramp up. This ramp up will facilitate the Water Authority's transition from a partially debt-funded to a wholly PayGo funded capital program. The increases will also enable greater flexibility in using reserves as potential revenue shortfalls are limited. The CY 2020 IAC will increase to $3.66/ME and the CY 2021 charge is currently forecasted to increase to $4.43/ME.

As the infrastructure access charge is a revenue offset, any fee of less than the recommended $3.66/ME would result in a corresponding increase to water rates. As rate revenue is subject to demand volatility, the Water Authority's forecasted drawdown of reserves would need to be reassessed.

Customer Service Charge. The Customer Service Charge is set to recover costs that are necessary to support the functioning of the Water Authority. The Customer Service Charge will be allocated among the member agencies on the basis of each agency's three-year rolling average of member agency supply purchases from the Water Authority. For CY 2020, the Customer Service Charge will remain at $25.6M.

Storage Charge. The Storage Charge is set to recover costs associated with the Emergency Storage Program and the Carryover Storage Program. Because agricultural users that participate in the SAWR program agree to reduced or interrupted service during times of water emergencies, they will not receive benefit from the storage program; therefore, the Storage Charge is based on all non-SAWR water deliveries and will be allocated among the member agencies using a pro rata share of each agency's three-year rolling average deliveries. For CY 2020, the Storage Charge will remain constant at its CY 2019 level of $65.0M.

Supply Reliability Charge. The Supply Reliability Charge (SRC) is a fixed charge established in 2016 to recover a portion of the costs associated with the Water Authority's highly reliable water supplies, which includes desalinated and IID transfer waters. The charge is allocated to member agencies based upon their pro rata share of the Water Authority's 5-year rolling M&I deliveries (agricultural deliveries are not included). For CY 2020, the SRC will increase from its current level of $30.2M to $37.4M.

Capacity Charges. Capacity charges are one-time fees charged to new system connections. The fee is set to recover the proportionate cost of the system necessary to serve that connection. The change reflects an increase of 0.64% in the Engineering News Record - Los Angeles Consumer Cost Index.

System Capacity Charge. This charge recovers a portion of the capital costs for the conveyance and storage facilities necessary to operate the delivery system. The current charge of $5,267/ME for each new meter equivalent will be administratively adjusted to $5,301/ME effective January 1, 2020.

Water Treatment Capacity Charge. This charge recovers a portion of the regional water treatment facility to be collected from all future users of the facility. In keeping with the Water Authority's policy of exempting agencies that cannot benefit from a service, the Water Treatment Capacity Charge excludes customers from the City of Del Mar, City of Escondido, and City of Poway. The current charge of $146/ME for each new meter equivalent will be administratively adjusted to $147/ME effective January 1, 2020.

Table 6 presents a summary of the CY 2020 Capacity Charge schedule that will be go in effect January 1, 2020.

Table 6 CY 2020 Water Authority Capacity Charges

Meter Size (Inches)	Factor	System Capacity Charge	Water Treatment Capacity Charge
Under 1"	1	$ 5,301	$ 147
1"	1.6	8,482	235
1.5"	3	15,903	441
2"	5.2	27,565	764
3"	9.6	50,890	1,411
4"	16.4	86,936	2,411
6"	30	159,030	4,410
8"	52	275,652	7,644
10"	78	413,478	11,466
12"	132	699,732	19,404

The following MWD rates and charges are passed on directly or allocated to the Water Authority's member agencies in the same manner as MWD applies them to the Water Authority.[1]

MWD Capacity Charge. For CY 2020, the Capacity Charge is $8,800 per cubic foot second (cfs) of maximum daily flow requested by a MWD member agency. The Capacity Charge is a fixed charge levied on an agency's maximum daily flows over the three previous fiscal years. It recovers the cost of providing peak capacity within the distribution system, and is designed to encourage member agencies to shift demands and avoid placing large daily peaks on the MWD system during the summer months. Daily flow measured between May 1 and September 30 for purposes of billing the Capacity Charge will include deliveries (except long-term seasonal storage deliveries) made by MWD to a member agency or member agency customer including water transfers, exchanges and agricultural deliveries. As part of a separate surface storage operating agreement to manage seasonal peaking, the Authority is expected to reserve its full available capacity. The Capacity Charge will be set at $8,019,440. The Authority's Board has directed that the Capacity Charge will be recovered proportionally based on a five-year rolling average of member agency flows during coincident peak weeks.

[1] The Water Authority has challenged MWD's cost of service methodology associated with these charges.

Readiness-to-Serve Charge. MWD's Readiness-to-Serve Charge differs from the other MWD charges in that it is set on a Fiscal Year basis. The total Readiness-to-Serve Charge will increase from its current level of $133 million to $136 million. The Authority's share is set at $25,635,294 for Fiscal Year 2019-2020. After credits from the MWD Standby Charge, and administrative costs, the net Water Authority share is $12,909,485. MWD's Readiness-to-Serve Charge will recover costs associated with standby and peak conveyance capacity and system emergency storage capacity. The Readiness-to-Serve Charge will be allocated among MWD member agencies on the basis of each agency's ten-year rolling average of firm demands (including water transfers and exchanges conveyed through system capacity). This allocation will be revised each year. Revenues equal to the amount of MWD Standby Charges will continue to be credited against the member agency's Readiness-to-Serve Charge obligation unless a change is requested by the member agency. The Board has directed that the Authority's Readiness-to-Serve Charge will be passed through proportionally to member agencies on the basis of each agency's ten-year rolling average of firm demands (including water transfers and exchanges conveyed through system capacity).

Summary
Staff is seeking Board direction for which rate and charge increases should be considered at the Public Hearing on June 27, 2019.

Prepared by: David Gore, Senior Management Analyst
Reviewed by: Pierce Rossum, Rate and Debt Manager
Reviewed by: Lisa Marie Harris, Director of Finance/Treasurer
Approved by: Dan Denham, Assistant General Manager

Attachments:
Attachment 1 - Resolution of the Board of Directors of the San Diego County Water Authority fixing the time and place for a public hearing to consider: (1) Changes to the rates and charges for delivery and supply of water; (2) Continuing the existing Standby Availability Charge; (3) Changes to the system and treatment capacity charges; and (4) Changes to the Rates Stabilization Fund Policy.
Attachment 2 - Carollo's draft Cost of Service Study for Calendar Year 2020 Rates and Charges

ORDINANCE NO. 2019- 02

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY SETTING RATES AND CHARGES FOR THE DELIVERY AND SUPPLY OF WATER, USE OF FACILITIES, AND PROVISION OF SERVICES

WHEREAS, Subdivision (11) of Section 5 of the County Water Authority Act provides, in part that, the Authority's Board of Directors, "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs;" and

WHEREAS, Subdivision (13) of Section 5 of the County Water Authority Act provides that the Authority may: "Fix, revise, and collect rates or other charges for the delivery of water, use of any facilities or property, or provision of services. In fixing rates, the Board may establish reasonable classifications among different classes and conditions of service, but rates shall be the same for similar classes and conditions of service"; and

WHEREAS, Subdivision (j) of Section 7 of the County Water Authority Act provides in part, that the Authority's Board of Directors, "as far as practicable, shall fix such rate or rates for water as will result in revenues which will pay the operating expenses of the Authority, provide for required maintenance, and provide for the payment of the interest and principal of the bonded debt;" and

WHEREAS, the Long-Range Financing Plan adopted by the Board of Directors contemplates the establishment of sufficient rates and charges, when considered along with taxes and other revenues of the Authority, to provide revenues for accomplishment of the Authority's purposes and programs as determined by the Board of Directors; and

WHEREAS, pursuant to the County Water Authority Act, the Board of Directors has adopted ordinances and resolutions levying and fixing property taxes, water standby availability charges and other rates and charges for delivery and supply of water, use of facilities and provision of other services by the Authority, including, without limitation, a System Capacity Charge, water Treatment Capacity Charge, Annexation Application Fee, an Infrastructure Access Charge, a Readiness-to-Serve Charge and water rates and charges; and

WHEREAS, the Board of Directors, upon recommendation of the Rate Study Subcommittee and the Fiscal Policy Committee, enacted Ordinance 2002-03, "An Ordinance of the Board of Directors of the San Diego County Water Authority Setting Rates and Charges for the Delivery and Supply of Water, Use of Facilities and Provision of Services", which established a new structure for water rates and charges; and

WHEREAS, the rate structure is incorporated into the Water Authority's Administrative Code as section 5.00.050 of chapter 5.00; and

WHEREAS, the Board of Directors, on June 28, 2018, adopted Ordinance No. 2018-02 setting rates and charges currently in effect; and

WHEREAS, since 2002, the Water Authority board of directors has regularly reviewed its budget, fiscal policies, revenue requirements, cost allocations, rates, and charges, and has adopted

ordinances and resolutions establishing appropriate rates and charges for delivery and supply of water, use of facilities, and provision of services; and

WHEREAS, the adoption of this ordinance is exempt from CEQA as provided by statute under Public Resources Code §21080(b)(8) because it involves the establishment of water rates, tolls, fares, or other charges for the purpose of meeting operating expenses, including employee wages and benefits; purchasing or leasing supplies, equipment, or materials; meeting financial reserve needs and requirements; or obtaining funds for capital projects within existing service areas. The General Manager is, therefore, authorized to file a Notice of Exemption pursuant to Public Resources Code §21152(b) and §15061(d) of the State CEQA Guidelines (Title 14, Chapter 3, California Code of Regulations).

WHEREAS, the Finance Department has presented reports dated May 15, 2019 and June 19, 2019 to the Administrative and Finance Committee (the "Reports") along with a Cost of Service Rate Study Report dated June 2019 by Carollo Engineers (the "Study") describing the proposed rates and charges to be collected from the member agencies; and

WHEREAS, on June 27, 2019 a duly noticed public hearing was held by the Administrative and Finance Committee which thereafter recommended the adjustments to the Water Authority's rates and charges as set forth in this ordinance; and

WHEREAS, the Board has considered the recommendations of the Administrative and Finance Committee and is fully informed; and

WHEREAS, the Board of Directors has considered its budget, fiscal policies, and prior rate setting actions, the information contained in the Report and the Study, the testimony and other evidence presented during the public hearing, and the recommendations of the Administrative and Finance Committee; and

WHEREAS, the Board of Directors hereby makes the following legislative findings and determinations:

1. The foregoing recitals are true and correct;
2. The rates and charges as proposed and recommended in the Reports are exempt from the requirements of the California Environmental Quality Act pursuant to Public Resources Code Section 21080(b)(8);
3. Any and all protests, if any, to the rates and charges as proposed and recommended in the Reports are overruled;
4. The Reports and Study are approved;
5. The rates and charges as proposed and recommended in the Report and Study are reasonably expected to generate revenues that meet, but do not exceed, the Authority's revenue requirements to fund its capital, operation, maintenance, and other costs, and the allocation of those costs to the member agencies and others through the rates and charges are reasonable, fair, and proper.

NOW, THEREFORE, the Board of Directors of the San Diego County Water Authority does ordain as follows:

1. The Authority's revenues from taxes, water rates and charges consists of: ad valorem property taxes, including payments of member agencies in lieu of taxes; a standby availability charge levied pursuant to Section 5.2 of the County Water Authority Act, including payments of such charges pursuant to Section 5.3 of the County Water Authority Act; an infrastructure access charge levied pursuant to Section 5.00.050 (c) of the Administrative Code; a System Capacity Charge and a water Treatment Capacity Charge levied pursuant to Section 5.9 of the County Water Authority Act and Ordinance No. 2019-__; and water rates and charges having the following components as described in this ordinance: Customer Service, Storage, Transportation, Treatment and Supply.

2. Ad valorem taxes, the standby availability charge and the system and water treatment capacity charges are not affected by this ordinance. All other water rates and charges shall continue to be paid pursuant to existing authority until increased or adjusted as provided in this ordinance.

3. Commencing January 1, 2020, the amount of the Infrastructure Access Charge to be paid monthly by each member agency of the Authority, shall be $3.66 per equivalent meter within the territory of the member agency and determined according to Table 1 below.

Table 1 - 2020 Infrastructure Access Charge Allocation

	IAC Equivalent Meters (ME) as of 12/31/18[1]	*Monthly Rate ($/ME)*	CY2020 - Monthly	CY2020 - Annual
Carlsbad M.W.D.	*36,308*	*$ 3.66*	$ 132,888	$1,594,656
Del Mar, City of	*2,493*	*3.66*	9,125	109,500
Escondido, City of	*35,405*	*3.66*	129,583	1,554,996
Fallbrook P.U.D.	*11,877*	*3.66*	43,470	521,640
Helix W.D.	*65,266*	*3.66*	238,874	2,866,488
Lakeside W.D.	*8,289*	*3.66*	30,338	364,056
Oceanside, City of	*57,465*	*3.66*	210,322	2,523,864
Olivenhain M.W.D.	*28,267*	*3.66*	103,458	1,241,496
Otay W.D.	*59,927*	*3.66*	219,333	2,631,996
Padre Dam M.W.D.	*26,849*	*3.66*	98,268	1,179,216
Pendleton Military Reserve	-	*3.66*	-	-
Poway, City of	*17,058*	*3.66*	62,433	749,196
Rainbow M.W.D.	*14,665*	*3.66*	53,674	644,088
Ramona M.W.D.	*10,283*	*3.66*	37,636	451,632
Rincon Del Diablo M.W.D.	*10,096*	*3.66*	36,952	443,424
San Diego, City of	*393,836*	*3.66*	1,441,440	17,297,280
San Dieguito W.D.	*15,061*	*3.66*	55,124	661,488
Santa Fe I.D.	*10,522*	*3.66*	38,511	462,132
Sweetwater Authority	*43,089*	*3.66*	157,706	1,892,472
Vallecitos W.D.	*27,190*	*3.66*	99,516	1,194,192
Valley Center M.W.D.	*14,682*	*3.66*	53,737	644,844
Vista I.D.	*35,862*	*3.66*	131,255	1,575,060
Yuima M.W.D.	*604.00*	*3.66*	2,211	26,532
Total IAC Charges	**925,094**		**$ 3,385,854**	**$ 40,630,248**

[1]Equivalent meters rounded to nearest whole meter; annual and monthly charges rounded to the nearest dollar.

4. Effective January 1, 2020, the Customer Service Charge is fixed at $25,600,000. Commencing January 1, 2020, the amount of the monthly Customer Service Charge to be paid by each member agency shall be determined according to Table 2 below.

Table 2 - Customer Service Charge Allocation

Customer Service Charge	*3-Year Average*[1]	CY2020 - Monthly	CY2020 - Annual
Carlsbad M.W.D.	*3.17%*	$ 67,732	$ 812,784
Del Mar, City of	*0.24%*	5,034	60,406
Escondido, City of	*4.32%*	92,234	1,106,802
Fallbrook P.U.D.	*2.28%*	48,548	582,566
Helix W.D.	*6.15%*	131,190	1,574,270
Lakeside W.D.	*0.63%*	13,484	161,803
Oceanside, City of	*5.13%*	109,541	1,314,490
Olivenhain M.W.D.	*4.28%*	91,372	1,096,454
Otay W.D.	*6.65%*	141,833	1,701,986
Padre Dam M.W.D.	*2.29%*	48,862	586,333
Pendleton Military Reserve	*0.02%*	339	4,059
Poway, City of	*2.18%*	46,419	557,028
Rainbow M.W.D.	*4.33%*	92,427	1,109,122
Ramona M.W.D.	*1.21%*	25,889	310,656
Rincon Del Diablo M.W.D.	*1.23%*	26,206	314,463
San Diego, City of	*38.32%*	817,484	9,809,803
San Dieguito W.D.	*0.85%*	18,100	217,197
Santa Fe I.D.	*1.57%*	33,429	401,142
Sweetwater Authority	*2.29%*	48,843	586,113
Vallecitos W.D.	*2.96%*	63,125	757,493
Valley Center M.W.D.	*5.05%*	107,751	1,293,007
Vista I.D.	*3.68%*	78,424	941,078
Yuima M.W.D.	*1.15%*	24,531	294,366
Contract Water	*0.03%*	549	6,577
Total Customer Service Charges	**100%**	**$ 2,133,346**	**$ 25,600,000**

[1]Three-year rolling average of M&I, SAWR and agricultural MWD deliveries (excludes wheeled water) based on FY16-FY18 period, rounded to the nearest acre-foot. Annual and monthly charges are rounded to the nearest dollar.

5. Effective January 1, 2020, the Storage Charge is fixed at $65,000,000. Commencing January 1, 2020 the amount of the monthly Storage Charge to be paid by each member agency shall be determined according to Table 3 below.

Table 3 - 2020 Storage Charge Allocation

Storage Charge	*3-Year Average*[1]	CY2020 - Monthly	CY2020 - Annual
Carlsbad M.W.D.	*3.45%*	$ 186,931	$ 2,243,167
Del Mar, City of	*0.26%*	13,893	166,712
Escondido, City of	*4.15%*	224,740	2,696,869
Fallbrook P.U.D.	*1.71%*	92,636	1,111,625
Helix W.D.	*6.68%*	362,064	4,344,760
Lakeside W.D.	*0.69%*	37,213	446,554
Oceanside, City of	*5.50%*	298,101	3,577,208
Olivenhain M.W.D.	*4.63%*	250,901	3,010,811
Otay W.D.	*7.23%*	391,437	4,697,239
Padre Dam M.W.D.	*2.44%*	132,300	1,587,589
Pendleton Military Reserve	*0.02%*	934	11,203
Poway, City of	*2.36%*	127,616	1,531,382
Rainbow M.W.D.	*2.58%*	139,676	1,676,106
Ramona M.W.D.	*1.04%*	56,515	678,177
Rincon Del Diablo M.W.D.	*1.33%*	71,963	863,555
San Diego, City of	*41.61%*	2,253,761	27,045,122
San Dieguito W.D.	*0.92%*	49,953	599,433
Santa Fe I.D.	*1.70%*	92,258	1,107,096
Sweetwater Authority	*2.49%*	134,800	1,617,589
Vallecitos W.D.	*3.00%*	162,560	1,950,716
Valley Center M.W.D.	*1.93%*	104,479	1,253,742
Vista I.D.	*3.98%*	215,745	2,588,938
Yuima M.W.D.	*0.30%*	16,201	194,407
Contract Water		-	-
Total Storage Charges	**100%**	**$ 5,416,677**	**$ 65,000,000**

[1]Three-year rolling average of firm, non-agricultural MWD deliveries based on FY16-FY18 period, rounded to the nearest acre-foot. Annual and monthly charges are rounded to the nearest dollar.

6. Effective January 1, 2020, the Supply Reliability Charge is fixed at $37,430,000. Commencing January 1, 2020 the amount of the monthly Supply Reliability Charge to be paid by each member agency shall be determined according to Table 4 below.

Table 4 - Supply Reliability Charge

	5-Year Average[1]	CY2020 - Monthly	CY2020 - Annual
Carlsbad M.W.D.	*3.55%*	$ 110,815	$ 1,329,773
Del Mar, City of	*0.24%*	7,491	89,891
Escondido, City of	*4.16%*	129,909	1,558,903
Fallbrook P.U.D.	*1.77%*	55,362	664,337
Helix W.D.	*6.86%*	213,954	2,567,448
Lakeside W.D.	*0.70%*	21,793	261,513
Oceanside, City of	*5.30%*	165,220	1,982,632
Olivenhain M.W.D.	*4.55%*	141,981	1,703,771
Otay W.D.	*7.06%*	220,209	2,642,500
Padre Dam M.W.D.	*2.40%*	74,711	896,531
Pendleton Military Reserve	*0.01%*	449	5,381
Poway, City of	*2.45%*	76,505	918,057
Rainbow M.W.D.	*2.48%*	77,503	930,026
Ramona M.W.D.	*1.07%*	33,399	400,783
Rincon Del Diablo M.W.D.	*1.33%*	41,602	499,220
San Diego, City of	*41.21%*	1,285,410	15,424,919
San Dieguito W.D.	*1.06%*	32,959	395,498
Santa Fe I.D.	*1.94%*	60,461	725,528
Sweetwater Authority	*2.68%*	83,652	1,003,816
Vallecitos W.D.	*3.14%*	97,914	1,174,965
Valley Center M.W.D.	*1.90%*	59,213	710,549
Vista I.D.	*3.86%*	120,412	1,444,937
Yuima M.W.D.	*0.23%*	7,207	86,474
Contract Water	*0.03%*	1,046	12,549
Total Supply Reliability Charges	**100%**	**$ 3,119,177**	**$ 37,430,000**

[1]Five-year rolling average of firm, non-agricultural MWD deliveries based on FY14-FY18 period, rounded to the nearest acre-foot. Annual and monthly charges are rounded to the nearest dollar.

7. Effective January 1, 2020, the Transportation Rate is fixed at $132 per acre-foot of water delivered by the Authority through Authority facilities. Member agencies shall pay the Transportation Rate for deliveries of Water Authority supplies in accordance with the procedures and processes of the Administrative Code relating to billing and payment of the Municipal and Industrial Water Rate. Payment of the Transportation Rate in connection with the wheeling of third-party water (non-Water Authority supplies) will be determined by an agreement approved by the Board of Directors. Wheeling of third-party water is also subject to a separate administration fee as stated in the agreement.

8. Effective January 1, 2020, the Melded Treatment Rate is fixed at $280 per acre-foot.

9. (a) Each member agency shall reimburse the Authority on a per-acre foot of water delivered basis, except as otherwise provided in subdivisions (b) and (c), for rates, fees and charges of the Metropolitan Water District of Southern California, the Imperial Irrigation District, or other sources of supply that may become available to the Authority (collectively the Supply Charges). It is the intent of the Authority to charge the melded rate for supply representing the cost of water to the Authority for the appropriate class of service. Effective January 1, 2020, the Melded Untreated Supply Rate (Melded Supply Rate) is $925 per acre-foot to reflect the cost of the supply of untreated municipal and industrial water to the Water Authority.

(b) Effective January 1, 2020 as part of the Supply Charges, each member agency shall pay to the Authority a MWD Capacity Charge determined according to the method set forth in Table 5 below.

Table 5 - Calendar Year 2020 MWD Capacity Charge Allocation (Capacity Charge)

	5-year average share[1]	CY2020 – Monthly[1]	CY2020 – Annual[1]
Carlsbad M.W.D.	*3.34%*	$ 22,298	$ 267,570
Del Mar, City of	*0.21%*	1,385	16,609
Escondido, City of	*3.95%*	26,398	316,772
Fallbrook P.U.D.	*3.05%*	20,371	244,452
Helix W.D.	*6.22%*	41,572	498,862
Lakeside W.D.	*1.17%*	7,837	94,044
Oceanside, City of	*4.82%*	32,241	386,886
Olivenhain M.W.D.	*4.13%*	27,618	331,408
Otay W.D.	*7.31%*	48,881	586,571
Padre Dam M.W.D.	*2.77%*	18,519	222,218
Pendleton Military Reserve	*0.01%*	89	1,066
Poway, City of	*2.02%*	13,498	161,965
Rainbow M.W.D.	*4.94%*	32,992	395,893
Ramona M.W.D.	*1.27%*	8,506	102,068
Rincon Del Diablo M.W.D.	*1.23%*	8,194	98,326
San Diego, City of	*34.21%*	228,653	2,743,834
San Dieguito W.D.	*1.04%*	6,977	83,721
Santa Fe I.D.	*2.11%*	14,114	169,361
Sweetwater Authority	*2.36%*	15,795	189,538
Vallecitos W.D.	*3.04%*	20,303	243,633
Valley Center M.W.D.	*5.88%*	39,296	471,544
Vista I.D.	*3.42%*	22,845	274,135
Yuima M.W.D.	*1.48%*	9,915	118,974
Total MWD Capacity Charge	**100%**	**$ 668,297**	**$ 8,019,449**

[1]Five-year rolling average of firm, non-agricultural MWD deliveries based on FY14-FY18 period, rounded to the nearest acre-foot. Annual and monthly charges are rounded to the nearest dollar.

(c) Effective July 1, 2019 as part of the Supply Charges, each member agency shall pay a MWD Readiness-to-Serve Charge determined according to Table 6 below.

Table 6 - Readiness-to-Serve Charge Allocation

	10-yr avg deliveries (AF)[1]	*10-yr avg deliveries[1]*	*FY20 RTS Charge*	*Net Stand-By Charge Credits[3]*	FY20 RTS Net Charge[2]	CY2020 - Monthly
Carlsbad M.W.D.	*15,909*	*3.54%*	*$ 909,275*	*$ (400,751)*	$ 508,524	$ 42,377
Del Mar, City of	*1,061*	*0.24%*	*60,634*	*(24,915)*	35,719	2,977
Escondido, City of	*18,369*	*4.09%*	*1,049,849*	*(231,768)*	818,080	68,174
Fallbrook P.U.D.	*10,449*	*2.33%*	*597,233*	*(286,799)*	310,434	25,870
Helix W.D.	*27,850*	*6.20%*	*1,591,732*	*(783,926)*	807,806	67,318
Lakeside W.D.[3]	*3,191*	*0.71%*	*182,404*	*(164,361)*	18,043	1,504
Oceanside, City of	*23,410*	*5.21%*	*1,337,991*	*(673,140)*	664,851	55,405
Olivenhain M.W.D.	*19,486*	*4.34%*	*1,113,708*	*(397,908)*	715,800	59,651
Otay W.D.	*30,423*	*6.77%*	*1,738,808*	*(947,356)*	791,452	65,955
Padre Dam M.W.D.	*10,959*	*2.44%*	*626,362*	*(529,089)*	97,273	8,107
Pendleton Military Reserve	*60*	*0.01%*	*3,417*	*(42)*	3,375	282
Poway, City of	*10,894*	*2.42%*	*622,659*	*(283,600)*	339,059	28,255
Rainbow M.W.D.	*18,178*	*4.04%*	*1,038,959*	*(535,205)*	503,754	41,980
Ramona M.W.D.	*5,348*	*1.19%*	*305,634*	*(400,284)*	(94,650)	(7,887)
Rincon Del Diablo M.W.D.	*5,891*	*1.31%*	*336,695*	*(312,932)*	23,763	1,981
San Diego, City of	*174,051*	*38.73%*	*9,947,793*	*(4,432,835)*	5,514,958	459,580
San Dieguito W.D.	*3,478*	*0.77%*	*198,787*	*(167,340)*	31,447	2,621
Santa Fe I.D.	*6,921*	*1.54%*	*395,590*	*(152,700)*	242,890	20,241
Sweetwater Authority	*9,823*	*2.19%*	*561,410*	*(429,407)*	132,003	11,001
Vallecitos W.D.	*15,055*	*3.35%*	*860,460*	*(438,152)*	422,308	35,193
Valley Center M.W.D.	*20,670*	*4.60%*	*1,181,381*	*(661,742)*	519,639	43,304
Vista I.D.	*15,115*	*3.36%*	*863,877*	*(414,942)*	448,935	37,412
Yuima M.W.D.	*2,406*	*0.54%*	*137,488*	*(107,731)*	29,757	2,480
Contract Water	*425*	*0.09%*	*24,266*	-	24,266	2,023
Total MWD RTS Charge	**449,422**	**100%**	**$ 25,686,410**	**$(12,776,925)**	**$ 12,909,486**	**$ 1,075,804**

[1]10-year rolling average of firm MWD deliveries based on FY09-FY18 period and rounded to the nearest acre-foot. Annual and monthly charges are rounded to nearest dollar.

[2]Net of RTS Charge and stand-by charge credits.

[3]Lakeside W.D. is allocated 23.83% of Padre Dam M.W.D.'s deliveries prior to January 2008. Lakeside W.D.'s deliveries after January 2008 are being metered separately from Padre Dam M.W.D's deliveries. Lakeside W.D. is allocated 23.87% of Padre Dam's M.W.D.'s stand-by charge credits based upon parcel count.

-10-

(d) This section shall be administered in accordance with the Report approved by this ordinance.

10. The Transitional Special Agricultural Water Rate Program was extended until December 31, 2020. The untreated TSAWR will be set to MWD's Tier 1 rate and increase to $755/AF on January 1, 2020. The treated TSAWR will increase to $1,035/AF on January 1, 2020.

11. Effective July 1, 2019, the Annexation Application Fee will be set at $10,749 per application.

12. For the purposes of this ordinance, including the tables, the City of National City and the South Bay Irrigation District are collectively referred to as Sweetwater Authority. Any reference in this ordinance to Sweetwater Authority as a member agency shall be construed as a reference to the City of National City and the South Bay Irrigation District.

13. This ordinance shall be effective upon adoption. In lieu of publication of the text of this ordinance, the Clerk of the Board may publish a summary prepared by the General Counsel.

14. The provisions of this ordinance shall prevail over any provisions of the Administrative Code relating to rates and charges to the extent of any conflict. All existing rates and charges shall continue in effect until adjusted as provided in this ordinance.

15. To the greatest extent possible the provisions of this ordinance shall be construed to be compatible with the provisions of Section 8.2 (e) of the Agreement Between the San Diego County Water Authority and the City of San Diego for the Emergency Storage Project (Joint Use of Lake Hodges Dam and Reservoir and of Section 8.2 (e) of the Agreement Between the San Diego County Water Authority and the City of San Diego for the Emergency Storage Project (Expansion of San Vicente Reservoir; however, the contract provisions shall control in the event of a conflict).

16. For the purposes of Section 6 of this ordinance, water delivered by the Authority through the following turnouts is deemed not to be "water delivered by the Authority through Authority facilities" – DeLuz 1, Fallbrook 3, Fallbrook 6, Rainbow 1, Rainbow 8, Rainbow 9 and Rainbow 10.

PASSED, APPROVED AND ADOPTED, this 27th day of June, 2019 by the following vote:

AYES: Unless noted below all Directors voted aye.

NOES: None.

ABSTAIN: None.

ABSENT: Heinrichs, Katz, Leonard, Lewinger (P), Murtland (P), and Simpson.

Jim Madaffer, Chair

ATTEST:

Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Ordinance 2019- 02 was duly adopted at the meeting of the Board of Directors on the date stated above.

Melinda Nelson
Clerk of the Board

RESOLUTION NO. 2019-14

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY CONTINUING THE WATER STANDBY AVAILABILITY CHARGE

The Board of Directors of the San Diego County Water Authority resolves as follows:

Pursuant to Government Code Section 54984.7 the Water Standby Availability Charge shall continue to be levied, imposed and administered as provided in Ordinance No. 2008-04 and Ordinance No. 2013-04 in Fiscal Year 2019-2020 and each successive year thereafter.

PASSED, APPROVED AND ADOPTED, this 27th day of June 2019 by the following vote:

AYES: Unless noted below all Directors voted aye.

NOES: None.

ABSTAIN: None.

ABSENT: Heinrichs, Katz, Leonard, Lewinger (P), Murtland (P), and Simpson.

Jim Madaffer,Chair

ATTEST:

Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2019- 14 was duly adopted at the meeting of the Board of Directors on the date stated above.

Melinda Nelson
Clerk of the Board

-1-

ORDINANCE NO. 2019- 03

AN ORDINANCE OF SAN DIEGO COUNTY WATER AUTHORITY AMENDING AND RESTATING THE SYSTEM CAPACITY AND WATER TREATMENT CAPACITY CHARGES IMPOSED BY THE WATER AUTHORITY PURSUANT TO SECTION 5.9 OF THE COUNTY WATER AUTHORITY ACT

WHEREAS, pursuant to Section 5.9 of the County Water Authority Act, the San Diego County Water Authority ("Water Authority") may fix and impose Capacity Charges upon the ultimate users of water delivered by the Water Authority to its member agencies and to require its member agencies to collect the charges on behalf of the Water Authority; and

WHEREAS, the Water Authority initially adopted a capacity charge in 1990 and thereafter has continuously imposed a capacity charge through the adoption and amendment of various ordinances; and

WHEREAS, the Water Authority's capacity charges are nondiscriminatory and imposed in accordance with applicable law as demonstrated by the various studies, reports, budgets, and apportionment methodologies upon which they are and have been based; and

WHEREAS, the Water Authority Board of Directors has previously adopted Ordinances No. 97-1, 99-2, 2000-1, 2000-3, 2001-03, 2002-05, 2005-03, 2008-01, 2013-03, 2014-03, 2017-02, and 2018-04 the operative requirements of which, subject to adjustments in the amount of the capacity charges imposed, are amended and restated in this ordinance; and

WHEREAS, at least fifteen (15) days prior to the meeting at which the System and Water Treatment Capacity Charges were levied, the Water Authority made available to the public data indicating the amount of cost, or estimated cost, required to provide the services for which the charges are to be levied and the revenue sources anticipated to provide such services, including general fund revenues; and

WHEREAS, the Water Authority has determined that imposition of the revised System and Water Treatment Capacity Charges recommended by the Fixed Revenue Study is exempt from CEQA under Section 15378(b)(5) of the State CEQA Guidelines regarding the creation of government funding mechanisms that do not involve any commitment to any specific project that may have potentially significant physical impacts on the environment. Any project funded by this charge either has or will have appropriate CEQA documentation completed prior to any activities that could result in physical impacts on the environment.

WHEREAS, pursuant to Resolution No. 2019-02 a duly noticed public hearing was held by the Administrative and Finance Committee which thereafter recommended the

adjustments to the System Capacity Charge and Water Treatment Capacity Charge as set forth in this ordinance; and

WHEREAS, the Board has considered the recommendations of the Administrative and Finance Committee and is fully informed: and

NOW, THEREFORE, the Board of Directors of the San Diego County Water Authority does ordain as follows:

Section 1. Capacity charges imposed on ultimate users of water.

(a) A System Capacity Charge in the amount specified in section 2 is imposed on each person, corporation, partnership, public agency, entity, or other ultimate user of water within the territory of the Water Authority for the establishment of a new metered connection or the increase in capacity of an existing metered connection, except as provided in subdivision (d).

(b) A Water Treatment Capacity Charge in the amount specified in section 3 is imposed on each person, corporation, partnership, public agency, entity, or other ultimate user of water within the territory of the Water Authority for the establishment of a new metered connection or the increase in capacity of an existing metered connection within a member agency having an existing or planned connection to the Water Authority's treated water system, except as provided in subdivision (d).

(c) "Establishment of a new metered connection" includes any act that results in, or is intended to result in the delivery of water to property through a water meter, including, without limitation receipt of a meter from a member agency or the installation of one or more water meters.

(d) The following are exempt from the capacity charges imposed by this section:

(1) Sub-meters receiving service through a water meter for which a capacity charge is or has been imposed;

(2) Water meters permanently connected to a reclaimed water system and measuring reclaimed water only;

(3) Water meters used to measure water provided solely through a separately metered fire suppression system;

(4) Water meters obtained for temporary service in connection with construction, preliminary land development, landscape installation and interim maintenance in connection with land development or habitat restoration, or similar temporary activities, and the member agency does not impose a capacity or connection

charge for the temporary service meter in accordance with its standard practices and procedures;

(5) Reinstallation or unlocking of a water meter for which a capacity charge was previously paid or that was installed before October 1, 1990, where the reinstallation or unlocking is required to restore service following a temporary disconnection or disruption of service;

(6) Replacement of a meter with one of the same or smaller size, provided, however, that no refund or credit for any capacity charge previously paid will be made for the installation of a smaller meter.

Section 2. Amount of System Capacity Charge.

(a) Effective January 1, 2020 amount of the System Capacity Charge will be determined according to the following schedule:

Meter Size (Inches)	Factor	System Capacity Charge ($)
Under 1"	1	5,301
1"	1.6	8,482
1.5"	3	15,903
2"	5.2	27,565
3"	9.6	50,890
4"	16.4	86,936
6"	30	159,030
8"	52	275,652
10"	78	413,478
12"	132	699,732

(b) The Director of Finance may adjust the schedule established by this section as of January 1, 2020, and as of each January 1 thereafter, based on the annual percentage change in the Engineering News-Record Construction Cost Index for Los Angeles, California (ENR-CCI LA) for the calendar year immediately preceding the adjustment.

Section 3. Amount of Water Treatment Capacity Charge.

(a) Effective January 1, 2020 the amount of the Water Treatment Capacity Charge will be determined according to the following schedule:

Meter Size (Inches)	Factor	Water Treatment Capacity Charge ($)
Under 1"	1	147
1"	1.6	235
1.5"	3	441
2"	5.2	764
3"	9.6	1,411
4"	16.4	2,411
6"	30	4,410
8"	52	7,644
10"	78	11,466
12"	132	19,404

(b) The Director of Finance may adjust the schedule established by this section as of January 1, 2020, and as of each January 1 thereafter, based on the annual percentage change in the Engineering News-Record Construction Cost Index for Los Angeles, California (ENR-CCI LA) for the calendar year immediately preceding the adjustment.

Section 4. Collection of Charges.

(a) Each Water Authority member agency is required to collect on behalf of the Water Authority the capacity charges imposed by Section 1, in the amounts determined according to Sections 2 and 3, and to pay to Water Authority, at least quarterly, on or before the 30th day of the months of January, April, July, and October of each year, the total amount of the capacity charges collected during the prior three calendar months. At the time of each payment, the member agency must report to the Water Authority the number and size of all meters supplied to water users within the territory of the member agency during the prior three calendar months, including meters for which a capacity charge is imposed and meters exempt from a capacity charge. A member agency is liable to the Water Authority for the full amount of any capacity charge for which the member agency provides a water meter to an ultimate user without having collected a required capacity charge.

(b) Water will be provided to an ultimate user of water within the territory of the Water Authority only through a metered connection. A Water Authority member agency shall not provide a water meter to an ultimate user of water within the territory of the Water Authority unless the user has paid the capacity charges imposed by the Water Authority.

(c) The size of the meter necessary or appropriate to serve an ultimate user of water will be determined by the member agency.

(d) When a water meter for a single-family residential property is required to provide standby capacity for a fire sprinkler system, the capacity charge may be determined according to the size of the meter necessary to meet the water use requirements for the property, as determined according to the rules of the member agency providing the meter, without consideration of additional size necessary to provide the standby capacity. Standby capacity for a fire sprinkler system is required when (1) the fire sprinkler system is required by law, including any requirement imposed by statute, ordinance, or as a condition of development, permit, or occupancy, and (2) the fire chief, fire marshal, or building official of the city, county, or special district responsible for fire protection service to the property has provided a written statement verifying the requirement for additional meter size. The determination under this subdivision will be made at the time of installation of the meter, including installation to replace a meter with one of greater size because of the later installation of a fire protection system. This subdivision does not apply to any meters greater than one inch in size.

(e) If a single meter is exchanged for more than one smaller meter to serve property that has been subdivided or otherwise developed, the capacity charges shall be determined based on the difference between the cumulative capacity charges for all the smaller meters according to the schedules set forth in sections 2 and 3 and the capacity charges for the exchanged single meter according to sections 2 and 3, regardless of the capacity charge, if any, in effect when the exchanged meter was first obtained; provided, however, that no credit or refund will be made if the cumulative capacity charges for the small meters is less than the capacity charges for the exchanged meter.

(f) No capacity charge will be collected for installation of a new water meter on a previous service connection for a parcel within the territory of the Water Authority if the member agency determines all of the following to exist: the parcel is receiving water from the member agency through a lawful connection; the new meter will not result in a material change in land use; the new meter will not result in a material increase in water use; and the member agency will not impose for its own account a capacity or connection charge for the new meter.

(g) Any interest earned by a member agency on capacity charges collected and held before payment to the Water Authority pursuant to subdivision (a) may be retained by the member agency as reimbursement for any costs incurred in collecting and remitting capacity charges for the Water Authority.

(h) In lieu of retaining interest, a member agency may apply for reimbursement of costs it reasonably incurs in collecting the Water Authority's capacity charges. If a member agency intends to apply for reimbursement, it must remit the interest earned on capacity charges collected and held on behalf of the Water Authority at the time it makes its quarterly payments. The application for reimbursement shall be filed annually on or before September 1. The application may be in the form established by the Finance Director and must itemize the costs incurred and shall include supporting documentation and explanation to reasonably verify the amounts sought. The Finance Director may request supplemental information. After review and approval of the application and any supplemental

information, the Finance Director is authorized to reimburse a member agency in the amount of the reasonable costs incurred as determined by the Finance Director.

(i) Any member agency that wholesales or otherwise supplies water obtained from the Water Authority to another public agency, private water company, or mutual water company (each referred to as a "sub-agency") shall, as a condition of service, require the sub-agency to collect from each ultimate water user within the sub-agency a capacity charge pursuant to this ordinance. The sub-agency, at its option, may remit the charges at least quarterly, on or before the 10th day of the months of January, April, July, and October of each year, or it may remit the charges to its supplying member agency, which shall then remit the charges to the Water Authority as provided in subdivision (a). At the time of each payment to either the Water Authority or the supplying member agency, the sub-agency must report the number and size of all meters supplied to water users within the territory of the member agency during the period for which the payment is made, including meters for which a capacity charge is imposed and meters exempt from a capacity charge. Any interest earned by a sub-agency on capacity charges collected and held before payment to the Water Authority pursuant may be retained by the sub-agency as reimbursement for any costs incurred in collecting and remitting capacity charges for the Water Authority. In lieu of retaining interest, a sub-agency may apply for reimbursement of costs it reasonably incurs in collecting the Water Authority's capacity charges. If a sub-agency intends to apply for reimbursement, it must remit the interest earned on capacity charges collected and held on behalf of the Water Authority at the time it makes its quarterly payments. The application for reimbursement shall be filed annually on or before September 1. The application may be in the form established by the Finance Director and must itemize the costs incurred and shall include supporting documentation and explanation to reasonably verify the amounts sought. The Finance Director may request supplemental information. After review and approval of the application and any supplemental information, the Finance Director is authorized to reimburse a sub-agency in the amount of the reasonable costs incurred as determined by the Finance Director. If a sub-agency remits capacity charges through its supplying member agency, the sub-agency shall pay any administrative costs imposed by the member agency without reimbursement by the Water Authority. A member agency is liable to the Water Authority for an amount equal to any capacity charges for which its sub-agency fails to collect or pay under this subdivision.

(j) Notwithstanding anything in this section to the contrary, the Water Authority may, pursuant to a written agreement with a member agency or a member agency's sub-agency, collect capacity charges directly from each ultimate user of water for the installation of a water meter. The written agreement must provide that the member agency or sub-agency will not provide or authorize the installation of a water meter within the territory of the Water Authority until the Water Authority provides written documentation of compliance with the requirements of this ordinance.

Section 5. Application of Government Code Section 54999.3.

The imposition of the Water Authority capacity charges on any school district, county office of education, community college district, the California State University, the

University of California, or state agency is subject to the provisions of Government Code section 54999.3. Payment by any of these entities of a Water Authority capacity charge for the installation of a meter shall be deemed to be an agreement with the Water Authority regarding that charge. No water meter will be provided or approved for installation to any of these agencies without an agreement regarding that charge. If any of these entities refuses to pay a Water Authority capacity charge, the Water Authority will enter into negotiations for an agreement regarding the charge.

Section 6. Protests.

Any person, corporation, partnership, public agency, entity, or other ultimate user of water within the territory of the Water Authority may protest the application of this ordinance to the installation of a meter by filing of a written protest with the member agency and the Water Authority Director of Finance before payment of the charge, in which case the member agency will not provide or authorize the installation of a meter, or by payment of the charge and filing a written protest with the member agency and the Water Authority Finance Director not later than 10 days after payment of the charge. The protest will be reviewed by the Finance Director who will provide a written response within twenty days from the date of the protest. If the protester is not satisfied with the response by the Finance Director, a written appeal to the Water Authority General Manager may be filed within fifteen days of the date of the Finance Director's response. The appeal shall provide a detailed explanation of the grounds for disagreement with the Finance Director's response. The General Manager may determine the matter based on the written appeal and the Finance Director's response. The final determination of the appeal will be provided by the General Manager in writing within thirty days of the date the appeal is filed. If the General Manager fails to provide a written determination within thirty days, the appeal is deemed denied on the grounds stated in the Finance Director's response.

Section 7. Refunds for Conversion to Reclaimed Water Systems.

If a water user converts a water meter to permanently measure reclaimed water only, the capacity charges previously collected for the meter will be refunded, without interest, upon written request by the water user and written verification by the member agency of compliance with this subdivision. The request must be filed within 180 days of the connection of the meter to the reclaimed water system.

Section 8. Credit for Annexation Charge Paid

This section applies to property annexed to the territory of the Water Authority after November 17, 2005. Any person, corporation, partnership, public agency, entity, or other ultimate user of water that paid an annexation charge with respect to a parcel, or that is a successor-in-interest to the parcel for which an annexation charge was paid, may apply for a credit toward the System Capacity Charge imposed for that parcel or a subdivided portion of that parcel. The amount of the credit will be determined by the Water Authority before the capacity charge is paid and the meter provided. No credit will be provided for the charge

imposed to reimburse the Water Authority for the cost of processing the application for annexation. No refund will be made for any charge previously paid.

Section 9. Use of Funds

All funds received from the System Capacity Charge, and interest attributable to those funds, will be separately accounted and expended only for capital expenses of existing or new Water Authority system facilities as authorized by law. All funds from the Water Treatment Capacity Charge, and interest attributable to those funds, will be separately accounted and expended only for capital expenses of existing or new Water Authority treatment facilities as authorized by law.

Section 10. Indemnification

The Water Authority will defend and indemnify member agencies, and their officers, employees, and agents against and from all claims, expenses, and costs, including costs of defense and reasonable attorneys' fees, arising from implementation or application of this ordinance, except a claim, expense, or cost caused solely the failure of a member agency, or its officers, employees, and agents to comply with the requirements of this ordinance.

PASSED, APPROVED AND ADOPTED, this 27th day of June, 2019

AYES: Unless noted below all Directors voted aye.

NOES: None.

ABSTAIN: None.

ABSENT: Heinrichs, Katz, Lecnard, Lewinger (P), Murtland (P), and Simpson.

Jim Madaffer, Chair

ATTEST:

Christy Guerin, Secretary

I, Melinda Nelson, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Ordinance No. 2019-03 was duly adopted at the meeting of the Board of Directors on the date stated above.

Melinda Nelson, Clerk of the Board

This page intentionally left blank

Performance Information

The 2019-2023 Business Plan highlights three key focus areas: Water Supply, Water Facilities, and Business Services. The 2019-2023 Business Plan contains broadened programs and updated management strategies that reflect the Water Authority's continued emphasis on water system management, system reliability, regulatory compliance, and financial stability. Objectives reflect emphasis on cybersecurity, resource planning, asset management, and workforce development. Near-term and long-term objectives are identified and tracked for performance for each Business Plan program.

Our Region's Trusted Water Leader
San Diego County Water Authority

2019-2023 Business Plan

3rd QUARTER PERFORMANCE REPORT - April 1, 2019 through June 30, 2019

sdcwa.org/mission-vision-values-strategies

STATUS LEGEND	
1	Objective was completed by the original target date.
2	Objective is on track to be completed by the original target date.
3	Objective is not on track to be completed by the original target date.
4	Objective is deleted or delayed due to a decision by the Water Authority Board.
5	Objective is deleted or delayed due to factors outside of the Water Authority's control.

WATER SUPPLY - Imported Water						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Achieve final decision in 2010/2012 MWD rate litigation through final court action or settlement and secure award of damages.	Dec-2019		2	Provided strategic and technical support to the Litigation Settlement Team to advance a negotiated settlement with MWD. The case management conference for 2010 and 2012 cases was rescheduled to August 21, 2019 to facilitate continued settlement discussion. The Settlement Team met with MWD on April 17, May 21, June 4, and June 25, 2019.	H, I, J, K, L
2	Develop new and flexible water storage solutions, including an Intentionally Created Surplus account in Lake Mead for Water Authority Colorado River supplies, in coordination with local, state and federal stakeholders.	Dec-2019		2	The Water Authority is continuing dialogue at the federal, state, and local level on the Water Authority's access to storage in Lake Mead to provide both regional and basin-wide benefits.	C, D, F, G
3	Develop and implement strategies for Water Authority participation in Basin States policy discussions on the Drought Contingency Plan, binational issues, and renegotiation of the 2007 Interim Guidelines.	Dec-2019		2	The Drought Contingency Plan was finalized in May 2019. Staff will remain engaged in Reclamation's integration of the DCP into Colorado River 2020 operations and other Basin States activities through the Colorado River Board, MWD Board, and binational Minute 323 meetings as well as follow updates and actions taken by other Lower Basin states' Boards and legislature.	C, D, F, G
4	Support the Water Authority's MWD Delegates engagement in the review of MWD's Ethics Office to promote transparency and equity at MWD.	Dec-2019		2	In June 2019, the MWD Board continued with its effort to review the Ethics Office. Staff supported the Water Authority Delegates' participation in this effort to promote transparency and equity at MWD. Director Hogan participated on the sub-committee tasked with interviewing Ethics Officer candidates; MWD is expected to hire a new Ethics Officer, Abel Salinas, in July 2019.	H, K
5	Communicate the Board's conditional support of California WaterFix and updated Bay-Delta Policy Principles and WaterFix to secure the support of the San Diego legislative delegation, business community, civic leaders, opinion leaders, and media for the proper allocation of project costs on MWD's rates and charges.	Jun-2020		2	Following Governor Newsom's executive order calling for a downsized Bay-Delta conveyance project and a portfolio approach to state water resource management, staff supported Chair Madaffer's effort to reach out to the Newsom Administration. Chair Madaffer wrote a letter to the administration expressing support for the executive order and subsequently invited Officials from the Newsom Administration to tour Water Authority facilities on July 18, 2019. The Water Authority Board is expected to update its Bay-Delta policy principles in July 2019.	A, B
6	Continue to explore the viability of alternative conveyance of QSA supplies.	Jun-2023		2	A new CIP was included in the adopted FY 2020/2021 budget for a two-phase study of a Regional Conveyance System. This new study will build upon past studies and also take a regional approach by exploring potential multi-use, partnerships, and funding opportunities. Phases A and B are anticipated to be complete by the end of FY 2021 with Board approval being required to proceed to Phase B. This study will be a discussion topic, along with other regional water issues, at the July 18, 2019 event hosted by the Water Authority and attended by key staff from Governor Newsom's administration.	C, D, F
7	Work with QSA JPA parties to ensure all required environmental mitigation is implemented at the Salton Sea.	Jun-2023		2	The QSA JPA held its quarterly meeting in June. The status report for progress on mitigation measures indicated all activities are on track and in compliance with requirements.	C, E, G
8	Engage with the state Salton Sea Management Program, Governor's Office, elected officials, and opinion leaders to ensure the state meets its obligations for restoration at the Salton Sea.	Jun-2023		2	Staff held meetings with state legislators on April 1 and 2, 2019 to discuss Colorado River and Salton Sea issues. The Chair sent a letter to the Governor's Administration expressing support following Governor Newsom's executive order calling for a portfolio approach to state water resource management.	D, E, G

*See Appendix for deail

WATER SUPPLY - Imported Water						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
9	Lead stakeholder briefings, annual tours, and additional outreach with Imperial Valley stakeholders to enhance relationships and exchange perspectives on efficiency-based water conservation, Salton Sea issues, and water diversification in the San Diego region.	Dec-2023		2	Staff hosted a tour April 4, 2019 for Imperial Valley representatives to see critical water infrastructure projects in San Diego. Staff also held meetings with farmers and IID staff and board members in April and May to discuss the regional conveyance system study. IID's Board President attended the Water Authority's 75th anniversary celebration and provided comments of support for the study to the Water Authority Board.	D, E, F, G
10	Actively engage in MWD's efforts to update and refine key programs and policies to support Water Authority's strategic goals, including but not limited to supply and facility reliability, demand management subsidies, and MWD fiscal sustainability.	Dec-2023		2	Actively participated in various MWD member agency managers and special workgroup meetings to advocate the Water Authority's interests, including discussions about MWD's emergency storage objective and use of MWD's system to deliver water during emergencies.	H, I, K
11	Communicate the status of MWD's fiscal condition with key stakeholders to ensure MWD's long-term financial sustainability and viability, and ultimately obtain support from stakeholders for MWD to adopt a long-term finance plan.	Dec-2023		2	Continued to track MWD finances and understand the implications of MWD's decisions to participate in programs and projects, such as a Bay-Delta conveyance project, on its long-term financial implications. Supported the Delegates' and Board Officers' efforts to communicate fiscal concerns including the need for MWD to ensure its directors understand their fiduciary duty and to provide comments on MWD's draft Appendix A. Supported the Delegates in their participation in the MWD Board's demand management cost allocation discussion.	H, I, K

*See Appendix for deail

WATER SUPPLY - Local Water						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Lead a member agency workgroup to develop a strategy for permitting treatment plant residual discharges.	Mar-2019		1	Contract awarded to WQTS to facilitate a residual handling workgroup with participating member agencies. Objectives of this workgroup include researching regulatory precedence in the State and developing a course of action for potential positions taken by the San Diego Water Board. A final workshop to accept the Whitepaper's recommendations was held March 4, 2019 and accepted by all member agency participants. The project is now complete.	A, B
2	Support Poseidon in obtaining National Pollutant Discharge Elimination System permit from the San Diego Regional Water Quality Control Board required to initiate the phased implementation of the Lewis Carlsbad Desalination Plant Intake Modifications Project.	Jun-2019		1	The San Diego Regional Water Quality Control Board adopted Poseidon's NPDES permit on May 8, 2019.	G, H
3	Support Poseidon with development and implementation of the intake screen demonstration project to optimize the proposed intake technology.	Dec-2021		2	Poseidon has obtained all the necessary permits to conduct the intake screen demonstration project and is finalizing the design and performance monitoring plan for the study. Installation of the pilot project will begin this fall with the testing period commencing by the end of 2019. Staff is also soliciting grant funding for this project and has already been awarded $175,000 through MWD's Future Supply Action program.	G, H
4	In collaboration with member agencies, support the San Diego Regional Water Quality Control Board to develop a Basin Plan amendment or guidance that supports potable reuse and reservoir operations based on sound science.	Dec-2021		2	Water Authority staff developed a proposal in coordination with the member agencies to update the basin plan to support reservoir operations. The San Diego Water Board has prioritized development of a basin plan amendment over the current triennial review period, and is working with staff on refining the proposal.	A, B, C
5	Advocate for state and federal funding opportunities applicable for the Lewis Carlsbad Desalination Plant Intake Modifications Project and apply as such programs are made available.	Dec-2021		2	Staff is actively pursuing the following funding opportunities for the Intake Modifications Project: U.S. EPA's WIFIA Program (formal loan application submitted); MWD Future Supply Actions Funding Program (awarded full funding request of $175,000 on January 31, 2018 and actively working with MWD on agreement terms); Desalination and Water Purification Research Program (application submitted on December 13, 2018); and DWR's Desalination Grant Program (continuous application process).	C, H
6	Complete Contract Administration Memoranda and any necessary Water Purchase Agreement contract amendments for each phase of the new intake and discharge facilities at the Lewis Carlsbad Desalination Plant.	Mar-2022		2	The Intake Modifications Project will be implemented in three phases to keep the Lewis Carlsbad Desalination Plant in service as a result of the closure of NRG's Encina Power Plant and ultimately comply with the statewide Ocean Plan Amendment adopted by the State Water Board in May 2015. A Contract Administration Memorandum (CAM) covering the first phase of temporary standalone operations was executed in June 2019 and staff is working on a subsequent CAM for the next phase of interim intake operations. This CAM is anticipated to be brought to the August Board meeting for approval.	G, H
7	Coordinate with member agencies and Water Research Foundation to evaluate the benefits of the Lewis Carlsbad Desalination Plant supply and new local supplies.	Jun-2022		2	The Water Research Foundation, and its consultant Arcadis, issued the final report for the Lewis Carlsbad Desalination Plant 2016 Integration Study on January 8, 2019. Staff is working with Arcadis and WRF to solicit partners to extend the study and analysis covering calendar years 2017 and 2018.	E

*See Appendix for deail

WATER SUPPLY - Local Water						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
8	Complete all submittal reviews within the Water Purchase Agreement required time frame during oversight of the design, construction, and commissioning of the Lewis Carlsbad Desalination Plant's interim and permanent intake and discharge facilities in compliance with the Ocean Plan Amendment.	Jun-2023		2	Staff has reviewed and commented on Poseidon's Design-Build Request for Proposals and DB Contract soliciting contractors to complete the initial intake and discharge facility improvements to support interim operations. This includes the installation of fish-friendly dilution pumps and other intake modifications to achieve stand-alone operations and allow NRG to begin demolition of the Encina Power Station. Contract award anticipated in Fall 2019 with construction completed by June 2020.	G, H
9	Coordinate with member agencies to submit applications to MWD for LRP and other funding opportunities and advocate for criteria that are supportive of member agency projects.	Jun-2023		2	Fallbrook PUD received a final draft agreement from MWD for their LRP Project and anticipate bringing it before their Board for consideration in July 2019. The City of San Diego received a revised draft agreement in May 2019 from MWD for review. Water Authority staff submitted the City of Oceanside's and the City of Escondido's LRP applications on May 2, 2019. On June 3, 2019, staff coordinated a conference call with member agency staff and staff from the State Water Board's Division of Financial Assistance to develop a path forward to expedite execution and funding of member agency project agreements under the Clean Water State Revolving Fund.	C
10	Facilitate a member agency workgroup to engage with the State Water Resources Control Board to provide coordinated regional comments on the proposed statewide Mercury Reservoir Plan.	Jun-2023		2	The Mercury Reservoir Plan is still on hold by the State Water Board. Work is expected to resume in late-2019.	D
11	Coordinate with the member agencies to provide comments to the State Water Resources Control Board on development of monitoring requirements and standards for constituents of emerging concern in potable and recycled water.	Jun-2023		2	Staff is participating in an ACWA PFAS workgroup that was convened in June. The purpose of the workgroup is to track state and federal PFAS related activities impacting drinking water, and recommend actions to the Safe Drinking Water Subcommittee and the ACWA Water Quality Committee. Staff is coordinating with member agencies on regulatory PFAS develoments.	A, B

*See Appendix for deail

WATER SUPPLY - Resource Planning						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Prepare an annual water supply and demand assessment, in coordination with the member agencies, that complies with state requirements.	Jun-2019	Jun-2022	5	The target date was revised because DWR revised the annual reporting from 2019 to 2022. Staff is coordinating with other water agencies to potentially prepare a voluntarily annual assessment prior to 2022 to influence the final reporting format.	G
2	Develop a centralized database covering five water- use efficiency programs to improve data management and performance reporting.	Jul-2019		1	To date 4 of 5 centralized database tables have been created for the WaterSmart Landscape Makeover, the WaterSmart Checkup, and the Sustainable Landscapes programs and the Water Authority's historical Turf Replacement Rebate Program data. A determination was made jointly with IT to no longer pursue the fifth database, historical data from the MWD SoCal Water$mart since the data is housed and accessible in MWD's database. Additionally, significant technical issues with migrating the data would escalate the cost and staff time to the detriment of other, higher priority IT projects.	H, L
3	Obtain Board approval for the updated Integrated Regional Water Management Plan (Phases 1 and 2) to comply with state requirements and enhance plan content.	Jul-2019		2	Phase 1 of the IRWM Plan Update went through the public review process and was finalized in December 2018. Phase 2, which will incorporate the Stormwater Capture Feasibility Study and update descriptions of the water-related needs of disadvantaged communities, underwent public review in May 2019. The final draft of the 2019 Plan Update, combining Phases 1 and 2, is scheduled to be presented to the Board for consideration and adoption at its July meeting.	A, D
4	Secure $2.5 million in external funding such as grant awards, utility funding, and in-kind contributions to support water-use efficiency programs.	Jun-2021		1	The Water Authority has secured more than $3.6 million in external funding, exceeding the target by 46 percent three years ahead of schedule. Sources include SDG&E, Solana Center, Hans Doe, artificial turf discount program, plant fairs, Union Tribune Live WaterSmart partnership, the Plumbing Association, MWD MAAP funding, and federal grant funding awarded to a regional conservation program which was supported by the Water Authority's existing agriculture efficiency grant.	H, I, J, K
5	Secure the San Diego Region's allocated share of approximately $38 million in Integrated Regional Water Management grant funding, from the Department of Water Resource's Proposition 1 program.	Jun-2021		2	The San Diego IRWM Program has received the first two of four anticipated grants from DWR's Proposition 1 IRWM grant program: a planning grant in the amount of $250,000 and a Disadvantaged Community Involvement Grant in the amount of $5.3 million. The San Diego IRWM program should receive two more grants totaling approximately $33 million from the Prop 1 program. The program has begun development of its third Prop. 1 grant application, which will be submitted to DWR by the end of 2019.	A, B, D
6	Obtain Board approval for an updated Water Shortage Contingency Plan that complies with evolving state requirements.	Jul-2021		2	Governor Brown signed SB 606 and AB 1668 in May 2018. The details related to implementation are currently being developed and should allow some activities to begin by July 2019.	E, F
7	Obtain Board approval for a revised 2008 Model Drought Response Conservation Ordinance to achieve consistency with the Water Shortage Contingency Plan and evolving state requirements.	Jul-2021		2	Revisions to the Model Drought Ordinance will incorporate anticipated future regulations on permanent water waste prohibitions adopted by the State Water Board. The Model Ordinance will be prepared in conjunction with the water shortage contingency plan update to ensure response levels are consistent in both documents.	E, F

*See Appendix for deail

WATER SUPPLY - Resource Planning						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
8	Update the Urban Water Management Plan to identify supplies necessary to meet future demands and comply with the planned revision of the Urban Water Management Plan Act.	Jul-2021		2	To complete work on updating the statistical modeling database for the long-range demand forecast effort, staff contacted the San Diego Association of Governments to request demographic and economic data by individual Water Authority member agency's service area. A scope of work was developed and on May 1, 2019, the Water Authority and SANDAG entered into an agreement for services for the requested data.	C, D

*See Appendix for deail

WATER FACILITIES - Infrastructure/CIP						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Complete the Kearny Mesa Headquarters Roof Rehabilitation project to provide an additional 20 to 30 years of waterproofing system service life.	Apr-2019		1	Construction is complete. In March 2019, the Board authorized the General Manager to accept the project and file Notice of Completion.	A, E, F, H
2	Evaluate and utilize tools and innovative technology which can be used for robotic pipeline inspections to reduce water discharge, labor costs, and risk of pipeline failures.	Jun-2020		2	In January 2019 the team began testing an in-house developed camera system in the Olivenhain Pipeline. The results of the inspection were shared with a technology vendor that was able to create a static 3D model of the pipeline. Commercial interest has been received, and measures are underway to secure intellectual property rights for the invention.	A,B
3	Complete the Vallecitos Water District 11/Vista Irrigation District 12 Flow Control Facility project to improve operations and reliability for the delivery of treated water to the Vallecitos Water District and the Vista Irrigation District.	Jun-2020		2	A construction contract was awarded in October 2018 to Kiewit Infrastructure West, Inc., in the amount of $4,977,000. Work is progressing as scheduled and about 30 percent complete.	A, C, E, F, G, H
4	Complete a pilot study for implementing the use of drone technology for assisting with Capital Improvement Program projects and management of the aqueduct right of way.	Dec-2020		2	Flights have been completed over fifteen areas to assess stormwater erosion of hillsides over our pipelines. This data will be used to help determine necessary actions such as adding erosion control measures. Flights are being planned for the other 10 inaccessible areas of the aqueducts to identify any property management issues and to support construction projects. The results of these flights will be evaluated to determine the effectiveness of the program.	B, E, F
5	Complete the San Diego 28 Flow Control Facility Rehabilitation project to improve operations and delivery reliability of untreated water to the city of San Diego's Alvarado Water Treatment Plant.	Dec-2020		2	Final design completed and the project advertised for bids in May 2019. Recommendation for award of the construction contract is expected at the July 2019 Board meeting.	A, C, E, F, G, H
6	Complete the Fallbrook Public Utility District 7/Rainbow Municipal Water District 14 Flow Control Facility project to improve operations and reliability for the delivery of treated water to the Fallbrook Public Utility District and the Rainbow Municipal Water District.	Dec-2020	Jun-2023	3	This project shifted as part of the FY 2020/2021 CIP prioritization. Final design is expected to be complete in June 2021.	A, C, E, F, G, H
7	Determine the number of Member Agencies who are interested in a Member Agency Asset Management Support Network. The network would offer a method for information sharing and guidance on asset management, condition assessment evaluation, procurement, and implementation. If interest is sufficient, draft a plan to develop the network and formalize the procedures.	Dec-2020		2	Work is on schedule. In collaboration with Otay Water District, outreach efforts have commenced, beginning with a presentation at the May General Managers meeting, followed by the Operating Heads meeting in June. Outreach will continue with a presentation at the Regional Member Agency Engineering Forum in July. Outreach to vendors is ongoing.	A,B
8	Complete the Carlsbad 5 Flow Control Facility project to allow desalination water delivery directly from the Lewis Carlsbad Desalination Plant to the Carlsbad Municipal Water District.	Mar-2021	Dec-2022	5	The project schedule is based on Carlsbad City Council approval to move forward. The schedule shifted due to Carlsbad project approval delays. The new schedule is based on Carlsbad City Council approving by August 2019. The project is fully reimbursable by Carlsbad.	E, F, G, H
9	Complete the Hauck Mesa Storage Reservoir and Pipeline Surge Protection project to provide operational flexibility on the First Aqueduct and longterm surge protection for the Valley Center Pipeline.	Jun-2021	Jun-2022	3	This project shifted as a result of the FY 2020/2021 CIP prioritization. Final design is expected to be complete in May 2020.	C, D, E, F, G, H

*See Appendix for deail

WATER FACILITIES - Infrastructure/CIP						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
10	Complete the Northern First Aqueduct Structures and Lining Rehabilitation project to improve operations and the reliability of First Aqueduct treated water deliveries.	Jun-2021		2	A construction contract was awarded in December 2018 to Kiewit Infrastructure West, Inc., in the amount of $30,400,000. Work is progressing as scheduled.	A, C, E, F, G, H
11	Complete the design for the Southern First Aqueduct Structures Rehabilitation project to improve operations and the reliability of First Aqueduct untreated water deliveries.	Jun-2021		2	Design for this project will begin in Summer of 2019.	A, C, E, F, G, H
12	Complete the Mission Trails Flow Regulatory Storage II and Flow Control Facility project to mitigate existing operational risks and meet future untreated water demands for the central and south county service areas.	Jun-2021		2	Final Design is anticipated to be complete in August 2019.	C, D, E, G, H
13	Complete a detailed study for the repair time estimates of the Water Authority's aqueduct and pipeline system based changes in seismic hazard evaluation and pipeline response to earthquakes.	Dec-2021		2	A detailed scope of work and budget was developed as part of the adopted FY 2020/2021 budget. Work is expected to begin in early 2020.	A, C
14	Complete the Emergency and Carryover Storage Project – North County Pump Station project to provide treated water deliveries to portions of the North County service area during an emergency event.	Dec-2021		2	The member agency agreements for both Valley Center and Yuima Municipal Water Districts have been executed. The environmental studies in support of the CEQA Addendum for the project were completed in April 2019. Board approval for the member agency agreements with Fallbrook PUD and Rainbow MWD are expected in September 2019.	C, D, E, G, H
15	Using the latest proven and innovative pipeline assessment technologies, perform 25-miles of comprehensive condition assessment of the treated water portion of the First Aqueduct.	Jun-2022		2	A leak detection ball was sent through various reaches of the First Aqueduct while the pipelines were in service. The team successfully launched and retrieved the ball through four reaches. In addition, the team is currently performing inspections of various welded steel pipeline sections and reinforced concrete cylinder pipe sections using three different technologies. Overall, this effort is approximately 24% complete.	A, B
16	Complete a Master Plan Update that incorporates revised demand projections from the 2020 Urban Water Management Plan and evaluates system optimization strategies to address lower flows and water quality.	Jun-2023		2	This effort is anticipated to begin in FY 2021 following completion of the 2020 Urban Water Management Plan.	C, D, G
17	Complete an additional 6 miles of priority pipeline relining, extending the service life of the identified segments of the aqueduct system.	Dec-2023	Sep-2025	3	Construction of 2.3 miles of relining was completed in June 2019. The remaining projects have been shifted as part of the FY 2020/2021 CIP prioritization and are expected to be complete by Fall of 2025.	A, E, G, H

*See Appendix for deail

WATER FACILITIES - Sustainability						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Meet 2020 Climate Action Plan emission targets by using adaptive management strategies developed for further reduction of carbon emissions	Dec-2019		1	Staff's 2018 annual carbon emissions reporting indicated the Water Authority is on track to meet Assembly Bill 32's emission targets for 2020 identified in the Climate Action Plan. Emissions reporting for 2018 was completed on February 27, 2019 and was 15-percent lower than the 2020 target. No additional management strategies or actions are currently required and there are no threats of increases between now and 2020.	A, B, C
2	Develop an environmental awareness training video on the California Environmental Quality Act and current environmental permitting requirements to be used for new hires and as a refresher course tailored for Engineering and Operations & Maintenance staff.	Dec-2019		2	Field videography has been completed and the final script has been approved. Additional production activities will follow and include studio videography, narration/voice-over, and editing.	E
3	Obtain Board approval for the updated Climate Action Plan to ensure conformity of greenhouse-gas inventory calculation with the Climate Registry's current General Reporting Protocol.	Jun-2020		2	Staff is working on the Water Authority's 2019 Climate Action Plan Update and plans to complete the document by December 2019. Consultant services will be secured in FY2020 to incorporate any new procedural guidelines and new greenhouse-gas emission targets linked to Climate Action Plan reporting into the draft document.	B, C
4	Obtain partnerships on leading-edge climate science projects on adaptation, sustainability, and resiliency strategies, and evaluate opportunities to incorporate research findings into facility and supply planning processes.	Jun-2021		2	On March 26, 2019, staff attended the 2019 San Diego Climate Summit, hosted at the Scripps Institution of Oceanography, and participated in a panel discussion regarding local public agencies' adaption measures in response to a changing climate and long-term planning uncertainties.	B, C
5	Evaluate NCCP/HCP covered species list to determine if desirable to seek a major amendment to the NCCP/HCP, its implementing agreement, and State and Federal incidental take permits to revise the Covered Species list.	Jun-2021		2	This objective will begin in coordination with the 2020 Master Plan Update, since subsequent environmental documentation may be linked.	D, F
6	Develop a minimum of three acres of wetland mitigation at the San Luis Rey Kendall site to mitigate impacts of near-term Capital Improvement Program projects.	Jun-2022		2	Planning efforts are complete and the project is being transitioned to the design phase at the beginning of FY2020.	D, F

*See Appendix for deail

WATER FACILITIES - Water System Management						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
1	Secure a bill crediting arrangement at the Lewis Carlsbad Desalination Plant for energy generated from the Rancho Peñasquitos Hydroelectric Facility to the desalination plant to offset the plant's energy costs.	Jun-2019	Dec-2019	5	A recommendation for approval of the Desalination Plant bill crediting Advice Letter submitted to the CPUC is anticipated at the CPUC's August 15th meeting. Once received, staff can apply to the RES-BCT program.	A, B, E
2	Complete update and obtain Board approval of updates to the 2013 Energy Management Policy.	Jun-2019		1	The board approved the 2019 Energy Management Policy at the June 2019 board meeting.	C
3	Develop a major maintenance and replacement plan for the Lake Hodges Hydroelectric Pumped Storage Facility.	Dec-2019		2	In general, the Plan for the Hodges Facility will summarize all significant equipment within the facility and will identify risks and consequences of failure, condition of the asset, remaining useful life, estimated replacement/major maintenance costs and the resulting schedule for planning and funding purposes. The Plan will provide a roadmap to ensure funding and resources are programmed to properly operate, maintain and sustain the Facility's long term operation. Scope and framework of the Major Maintenance and Replacement Plan has been developed. All the Facility's significant equipment and related maintenace and replacement costs have been identified and included. Required information for condition assessment and the risk/consequence of failure are being researched and populated.	I, J
4	Negotiate a draft project development agreement with a developer for Board consideration for the proposed San Vicente Energy Storage Facility project.	Dec-2019		2	Negotiations are on-hold while Staff focuses on legislative and regulatory efforts to identify a viable cost of service financial model.	A, B
5	Complete an Escondido Facility Space Needs Assessment Study and utilize the Study results to develop a master plan for an efficient and secure operating facility.	Dec-2019		2	The Escondido Facility Space Needs Assessment Study was completed by Miller Hull Consultants in December 2018. The Study's results identified space deficiencies at the current Escondido Operations Yard. A Board Subcommittee was formed to review the Study's results and O&M's needs. The Subcommittee provided an update to the Engineering and Operations Committee on April 25th, agreeing with the Study's results. The Board approved the FY 2020/2021 budget, which included a new Operations and Maintenance Facility project. The project has been transferred to the Water Resources Department to initiate a study to evaluate sites and building/property delivery options.	I
6	Construct and place into operation the Mission Trails Chlorination facility to mitigate nitrification on the 2nd Aqueduct.	Mar-2020		2	Construction work is progressing and is targeted for completion in August 2019.	I
7	Implement identified physical security assessment recommendations for critical facilities.	Jun-2020		2	Scope and costs have been developed for the documented recommended improvements. Costs for the more significant improvement items are included in the FY 2020/2021 budget. Implementation of the more minor improvements has begun.	F, G, H
8	Complete replacement of the instrumentation communication network at San Vicente Pump Station to increase operational reliability of these facilities.	Jun-2020		2	Work progress continues at the San Vicente site. Pump Train 1 has been completed and work on Pump Trains 2 & 3 is ongoing. Required components to modify/convert the existing actuators to the new communication system have been ordered.	I

*See Appendix for deail

WATER FACILITIES - Water System Management						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
9	Develop a communication system master plan for the Water Authority's Aqueduct Control System.	Jun-2020		2	The System Communication Master Plan development is progressing on schedule with drafting the plan and holding various coordination meetings. The team has documented the current system layout and evaluated various communication methods. Staff is currently identifying deficiencies in the current system and developing the prioritization process for potential improvements. The next steps include defining an implementation strategy and recommendations.	I
10	Evaluate alternatives for centralizing energy generation and usage data.	Dec-2020		2	Staff has evaluated current energy usage data tracking mechanisms used by the private sector and other local agencies. Staff is working to develop a prototype using in-house resources.	B
11	Identify innovative opportunities for energy procurement to reduce energy costs and identify schedules for economically viable alternatives.	Dec-2020		2	On June 10, 2019, staff applied to SDG&E's Direct Access Program lottery to receive lower cost energy. SDG&E randomly selects non- residential customers for reduced energy rates, which would significantly lower energy costs at selected Water Authority facilities. Lottery position is expected to be revealed August 12, 2019 with eligibility determined around October.	D, E
12	Participate in Federal and State regulatory proceedings to move bulk energy storage forward in California.	Jun-2023		2	Staff continues to coordinate and comment on pertinent Federal and State regulatory proceedings, such as the California Public Utilities Commission's Integrated Resource Plan and the California Independent System Operator's Transmission Planning Process.	E

*See Appendix for deail

BUSINESS SERVICES - Business Support						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Pilot implementation of enhancements to records management application that increase functionality, such as autoclassification of new records upon creation.	Jun-2019		1	Initial pilot was completed by June 30, 2019. Pilot included test migration of a sample of shared drive documents into SharePoint. The test SharePoint site was configured with sample content types and metadata. The second phase of the pilot will continue into the next budget period to allow AS staff time to structure a file plan and configure retention rules in the records management software.	D, E, J, K
2	Complete development of the Maximo computer maintenance management system for use in the field by Operations and Maintenance staff.	Sep-2020		2	IT staff are currently testing our ability to secure and manage mobile devices using a management service. Preliminary testing looks promising and we will continue to work with Operations staff to achieve the best outcome.	D, E, F
3	Implement all physical and policy improvements to enhance the security of the Kearny Mesa Headquarters that were identified in the 2018 Security Review.	Dec-2020		2	Work on improvements has begun. In FY 2019, staff installed shatterproof tinted window film along high-risk public facing windows; additional access card readers in the lobby area; upgraded surveillance camera software; additional surveillance cameras; and an emergency lobby door lock with intercom. A feasibility study was performed, and implementation of further physical security measures will be reviewed and completed in FY 2020. Among the first of thse will be new building access policies and acess cards with IDs, effective July 1, 2019.	G
4	Migrate three primary shared drives to cloud-based platforms to maximize resilience against loss of service while reducing on-premise physical server hardware needs.	Dec-2021		2	Staff is examining the possibility of enabling an electronic records management system in concert with the cloud migration effort. If chosen, this option will add additional time and effort to this objective.	A, B
5	Upgrade existing phone technology to complete the "unified communication" system (combined messaging, presence, phone, video conferencing, voicemail, and email) to expand organization-wide communication capabilities.	Dec-2021	Dec-2023	3	In early 2019 Administrative Services and the General Manager's Office decided to defer proceeding with the unified communication system upgrade in favor of a less expensive and less disruptive phone system software upgrade, which was completed by the end of June 2019. Administrative Services will pilot and test a unified communication system during the fiscal 2020-2021 budget cycle for potential wider implementation after 2021.	D, E, F
6	Reduce energy use of the Kearny Mesa Headquarters from Fiscal Year 2018 baseline by 7 percent by the end of Fiscal Year 2023.	Sep-2023		2	Energy usage has been reduced by 8.29% in the first ten months of FY 2019 as compared to the baseline.	H, K
7	Implement at least 50 additional information security measures based on Center for Internet Security's CIS-20 security framework.	Sep-2023		2	The Information Security team has made significant progress in implementing best practices for hardening the Authority's network infrastructure.	A, B, C
8	Adapt business insurance policies to cost-effectively meet the evolving needs of the Water Authority.	Sep-2023		2	Business insurance policies were renewed in June 2019. Staff is currently researching Product Liability coverage to insure tools developed in-house by Operations & Maintenance.	I
9	Migrate electronic document management system and Maximo to the cloud to improve systems resilience.	Sep-2023		2	Initial research has begun. More activity expected in upcoming budget cycles.	A, B, D, E, J, K

*See Appendix for deail

BUSINESS SERVICES - Communication and Messaging						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
1	Conduct communications and outreach activities that result in at least 70 percent of stakeholders viewing municipal water service as a "good" or "excellent" value through the public opinion poll.	Jun-2019	Sep-2019	4	In April 2019, a firm was hired to conduct a biennial public opinion poll. The Board Officers opted to change the timing of the poll, so results are expected to be reported to the Board in September 2019.	D, E, F
2	Execute a minimum of three significant programs or events to commemorate the Water Authority's 75th Anniversary.	Jun-2019		1	Five programs were executed: A celebration at the June Board meeting, new history panels installed in the lobby, a mailer sent to regional influencers, a special section in the San Diego Union-Tribune issued, and a challenge coin was produced and will be distributed to member agencies. An employee celebration is being planned for the summer/fall.	A, D, E, F
3	Execute effective advocacy strategies to defeat all legislation that the Water Authority Board opposes each year.	Dec-2019		2	At the half-way point of the state legislative session, there remains only one bill on which the Water Authority Board has adopted an Oppose position. Staff and legislative advocates are employing a variety of legislative strategies to defeat that measure.	B
4	Migrate sdcwa.org and microsites to an integrated, up-to-date operating system.	Jun-2020		2	Funding for the Water Authority website CMS modernization is included in the adopted FY 2020/2021 budget.	E, F
5	Grow total social media audience and engagement by 15 percent.	Sep-2020		2	The baseline for social media followers is 17,154 (October 2018) with a goal of at least 19,727 followers in September 2020. There were an average of 18,663 followers through May 2019, a 9% increase. The baseline for monthly social media engagements is 3,692, with a goal to increase that by 15% to 4,245 by end of FY 2020. There was an average of 5,073 engagements through January 2019, an increase of 37%.	F
6	Achieve passage of one or more Water Authority sponsored bills annually.	Dec-2020		2	AB 1588 - a Water Authority co-sponsored measure that would ensure appropriate crediting for education and experience gained during military service for individuals transitioning into civilian water and wastewater system operator occupations - has passed entirely through the State Assembly, and will next begin the process of consideration in the State Senate.	A, B
7	Provide at least one briefing annually to each member of the San Diego state legislative delegation to enhance support for advancing and protecting the Water Authority's legislative interests.	Jun-2021		2	Extensive briefings with the entire legislative delegation involving Water Authority Board members and management staff occurred during April 1-2, 2019. Additionally, ongoing briefings for delegation members are occurring continually throughout the legislative session on a routine basis.	A, B
8	Increase awareness and understanding of the Water Authority's interests by providing at least one briefing annually to each member of the San Diego congressional delegation in Washington, D.C., and the San Diego district offices.	Jun-2021		2	Ongoing briefings with the congressional delegation have occurred and continue to occur routinely relative to Colorado River issues and Carlsbad desalination intake project funding. Comprehensive briefings on additional Water Authority priorities will be scheduled to occur throughout 2019.	A, B
9	Strengthen relationships with state and federal legislators by conducting at least two legislative roundtable events at the Water Authority headquarters during each calendar year.	Jun-2021		2	Staff has secured the commitment of Senator Brian Jones as the keynote speaker for the first legislative roundtable event of 2019 - scheduled to occur on July 15, 2019	A, B
10	Engage in outreach efforts that result in at least 50 percent of Citizens Water Academy alumni engaging in at least one alumni activity through Fiscal Year 2021.	Jun-2021		2	Alumni engagement is currently at 47%. Additional events are planned for 2019. Total alumni is 643.	E, F

*See Appendix for deail

BUSINESS SERVICES - Communication and Messaging						
No.	Objective Description	Target Date	Revised Date	Status	Comments	Management Strategies*
11	Convene the Potable Reuse Coordinating Committee to advocate for direct potable reuse criteria that supports potable reuse in the San Diego region.	Jun-2023		2	In June 2019, staff convened the Potable Reuse Coordinating Committee to provide input into development of a California Water Reuse Action Plan by WateReuse California. The draft Action Plan prioritizes development of regulations and research needed to advance direct potable reuse in the state.	H, I, J
12	Participate with water supply stakeholders to support water supply development and operations in EPA's rulemaking for Waters of the United States.	Jun-2023		2	The Water Authority submitted written comments to the EPA and Department of the Army on their proposed rule revising the definition of Waters of the United State on April 15, 2019. The comments were developed in coordination with the member agency reservoir workgroup.	H, J

*See Appendix for deail

BUSINESS SERVICES - Financial Management						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
1	Upgrade the Financial Rate Model Program for rate and charge reliability.	Mar-2019		1	A new Rate and Charges Model is now fully developed. Staff worked closely with its consultant to simplify and modernize the previous model that was originally developed in the early 2000's. The new Rate and Charges model is currently being used to determine the appropriate rate levels for Calendar Year 2020 rate setting process. As with the previous model, staff will continue to constantly update and modify the model to reflect changes in cost of service, demands, and rate designs.	A, B, I
2	Develop and obtain approval for a long-term pension funding strategy for future pension savings.	Jun-2019		1	At Board suggestion, staff researched developing a long-term pension plan funding framework to respond to the Water Authority's unfunded pension liability. Over multiple Board meetings, staff and the Board evaluated various options and then established a pension plan funding framework that set: (1) a target pension plan funded ratio range; (2) number of years to reach the target range; (3) established a funding source; and (4) selected the funding vehicle. The Board adopted the Pension Plan Funding Strategy at the October 2018 meeting and this objective is now complete.	C, G, K
3	Complete the full implementation of both short-term and long-term investment strategies to realize future investment earnings.	Jun-2019		1	Staff has implemented a contract amendment to address the outstanding investment strategy items. Majority of available funds have been sent to the investment manager for investing for the core portfolio. The investment strategy involves allocating all core funds to the external investment manager for investing.	E, F, K
4	Complete pipeline refunding transactions resulting in debt policy-driven savings.	Jun-2019		1	Staff obtained Board approval in December 2018 for approval of the refunding transactions. To optimize savings, documents for the transactions will be prepared in advance and the markets will be accessed as soon as the Board and California Pollution Control Financing Authority (CPCFA) approval processes are complete. Staff successfully refunded the pipeline bonds in February 2019 resulting in $18 million in savings.	D, F, K
5	Restructure the Chart of Accounts for better measurement of the organization's performance and increase effectiveness of reporting.	Jul-2019		2	Staff is coordinating with department analysts as well as I.T. to ensure all impacts are considered when implementing the changes to the chart of accounts. The objective is on track to meet the target date of 7/31/2019.	A, C
6	Develop the Water Billing and Information Management System project (subsequently renamed the Data Archival and Invoicing System - DAIS) to replace the existing PRIMA and WBIS systems.	Mar-2020		2	Design and development work continued on the DAIS project with efforts focused on constructing standardized reports, developing sample data entry templates and query screens and configuring the cloud-based system architecture. The Application Design Task is anticipated to be completed during the next reporting cycle and the project will transition into the implementation phase at that time.	A, C
7	Update budgeting processes to ensure efficiency and continued best practices in accordance with Government Finance Officers Association standards.	Jun-2020		2	Staff initially updated processes as a result of the FYs 2018/2019 budget development. Staff will be revising and documenting the budget processes now that the FYs 2020/2021 budget development is complete. Staff is also writing the new policies and practices for equipment replacement and overhead budgeting. This objective is on track for completion by June 2020.	A, C, H

*See Appendix for deail

BUSINESS SERVICES - Financial Management						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
8	**Advocate Water Authority position through participation in two industry conferences per year via speaking engagements and achieve membership in industry committees and boards, such as California Society of Municipal Finance Officers, Government Finance Officers Association, Bond Buyer, and the California Municipal Treasurer's Association.**	**Jun-2023**		2	**This quarter the Director of Finance was a key note speaker at the California Municipal Treasurer's Association Conference as well as a presenter at the Government Finance Officer's Association Conference. In October and November staff presented at the Women in Public Finance forums, Municipal Bond Women's Forum, and the Bond Buyer Conference.**	**E, K**

*See Appendix for deail

BUSINESS SERVICES - Workforce Management						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
1	Develop communication plan and implement additional communication channels to address changing demographics of the workforce.	Jun-2019		1	Water Authority has instituted additional communication methods including mobile friendly job postings, redesigned social media branding for open positions, and more interactive communication at quarterly all-hands meeting. Human Resources also uses targeted newsletters to disseminate information on wellness programs, benefits, and other pertinent information.	C
2	Evaluate and implement a competency-based hiring model.	Jun-2019	Dec-2019	3	Staff has begun researching a competency-based hiring model to meet the needs of the agency. Project delayed due to other priorities of HR Division.	D, E
3	Evaluate a new performance review tool to address consistent, relevant feedback for leadership staff.	Jun-2019		1	Staff has contracted for a new multi-rater assessment tool and will implement a mid-year review for leadership staff by the target date. Feedback on assessment questions received and tool currently in development. Testing multi-rater tool in progress.	E
4	Develop and produce job preview videos, showcasing our industry and what a hard to recruit for job looks like.	Jun-2019	Jun-2020	3	Project has been funded as part of the FY2020/2021 Budget and expected to be complete by June 2020.	C
5	Develop a workforce management strategic plan that addresses diversity and inclusion.	Jun-2020		2	HR Strategic Plan developed, Diversity and Inclusion Plan development to begin Summer 2019.	B
6	Reassess the San Diego Regional Water/Wastewater Internship Program to address needs of the stakeholders and increase number of qualified applicants.	Mar-2021		2	2018-19 Internship Program has significantly higher number of interns at 17. Staff has met with various stakeholders to identify needs of the Water/Wastewater Internship Program. Further meetings will be conducted with the stakeholders prior to the advertisement of the 2019-20 Program.	D
7	Develop a Water Authority Alumni Network and hold annual meetings with the Alumni group.	Jun-2021		2	Alumni will be invited to the employee event for the 75th anniversary to be held in September 2019.	D
8	Develop targeted quarterly leadership and ongoing skills-based training programs for employees to address any competency gaps in the workforce.	Jun-2023		2	Competency gaps will be assessed following the results of the multi- rater assessment tool. Trainings beginning in Summer 2019 will reflect those identified skills and areas for training.	A
9	Develop organization-wide mentoring program designed to empower early and mid-career professionals, increase diversity, attract high performing employees, and foster a culture of continuous learning and knowledge transfer.	Jun-2023		2	The Employee Development and Growth Plan was developed in February 2017. A new program coordinator was identified in May 2018. The program will continue each year holding quarterly lunch and learn meetings, in addition to EGDP "Book of the Quarter" meetings. Budget and Finance, Career Management, Time Management, Public Speaking, and "The Rumble" are recent lunch and learn presented topics. FY 19 Program Coordinator will present status of the program at July Board meeting, FY 20 Program Coordinator selection anticipated by late July 2019.	A, B, D
10	Achieve and maintain an employee turnover rate of six percent or less, factoring out retirements, for employees meeting or exceeding overall performance standards each fiscal year.	Jun-2023		2	FY 19 Turnover rate (excluding retirements) through 5/30/19 is 2.75%.	D
11	Develop and implement Wellness Initiatives to improve health and wellness of employees; develop employee satisfaction survey regarding wellness; and achieve 20 percent increase in satisfaction from baseline results.	Jun-2023		2	Wellness fitness classes are currently being held in both KM and ESC. Lunch and Learns are scheduled once a month, or as available. The first monthly Wellness newsletter was distributed in May 2019. Wellness survey will be distributed before Fiscal Year End 2019. Chair Massages (KM) and Jamba Juice Day (ESC) were held in June 2019.	B

*See Appendix for deail

BUSINESS SERVICES - Workforce Management						
No.	**Objective Description**	**Target Date**	**Revised Date**	**Status**	**Comments**	**Management Strategies***
12	Enroll 75 Water Authority employees over a two- year fiscal period in the supervisory training provided by the Liebert Cassidy Whitmore Employee Relations Consortium. (Revised April 2019)	Jun-2023		2	FY 2018 & 2019 enrollment was 106 attendees and met the target for the two year fiscal goal (FY 18: 60; FY 19: 46). Attendance by supervisors at Employee Relations Training is important to prioritize among staff training. Three sessions in FY 2019 were very HR-focused and not applicable to general staff.	B

*See Appendix for deail

Our Region's Trusted Water Leader
San Diego County Water Authority

Appendix

Program Focus Areas and Management Strategies

(Business Plan Document Excerpt)

The following Appendix provides detail for the letter references found in the **Management Strategies** column of the report.

Business Plan Structure

Appendix Table of Contents by Program

Our Region's Trusted Water Leader
San Diego County Water Authority

Water Supply IMPORTED WATER | Management Strategies

BAY-DELTA	
A.	Advocate Board policies regarding Bay-Delta issues, funding initiatives, and the California WaterFix to federal, state, local, and other stakeholders.
B.	Protect ratepayers from paying an inequitable share of California WaterFix costs by ensuring project costs are properly assigned in MWD's rate and charges and are consistent with DWR's historic practice of assigning similar projects as "conservation", or supply charges.

COLORADO RIVER	
C.	Develop flexibility in Quantification Settlement Agreement implementation.
D.	Safeguard Water Authority investments from outside influences.
E.	Ensure completion of Quantification Settlement Agreement environmental mitigation milestones and Salton Sea activities.
F.	Leverage opportunities to increase involvement in Colorado River Basin-wide programs, including storage opportunities in Lake Mead.
G.	Advance Water Authority Quantification Settlement Agreement policy through continuing dialogue with governing bodies, elected officials, and the public.

METROPOLITAN WATER DISTRICT	
H.	Support MWD Delegates in identifying, maintaining, and advancing Water Authority strategic goals at MWD.
I.	Influence policy decisions at MWD to ensure its long-term sustainability as a supplemental imported water supplier.
J.	Ensure the Water Authority receives its fair share of investments at MWD.
K.	Advocate for equity and transparency in MWD's decision making processes.
L.	Resolve through litigation or settlement all outstanding issues in rate litigation with MWD.

Water Supply LOCAL WATER | Management Strategies

MEMBER AGENCY SUPPLY	
A.	Improve regulatory flexibility and streamlining for local supplies.
B.	Protect and improve source water quality for water supply in the San Diego region.
C.	Support funding from outside the region for local water supply projects.

POTABLE REUSE	
D.	Engage in regulatory and legislative processes to ensure regulatory pathways are available for approval of local potable reuse projects.
E.	Assess and recognize the benefits of water quality improvements associated with new local supplies.
F.	Encourage public support, implement public outreach, and offer technical assistance to support reuse and recycled water projects.

SEAWATER DESALINATION	
G.	Ensure compliance with Lewis Carlsbad Desalination Plant Water Purchase Agreement.
H.	Ensure continued operation of Lewis Carlsbad Desalination Plant for stand-alone operation and compliance with Ocean Plan Amendment.

Water Supply RESOURCE PLANNING | Management Strategies

WATER MANAGEMENT PLANNING	
A.	Implement an Integrated Regional Water Management Plan that reflects stakeholder consensus and complies with evolving state requirements.
B.	Pursue funding for implementation of projects that achieve San Diego Integrated Regional Water Management Program goals.
C.	Develop a regional Urban Water Management Plan that complies with evolving state requirements and ensures a reliable water supply for the San Diego region.
D.	Update water management plans to maintain eligibility for state funding.

WATER SHORTAGE AND DROUGHT RESPONSE MANAGEMENT	
E.	Ensure planning documents are consistent and relevant to properly manage and respond to supply shortages.
F.	Ensure that proposed drought response actions are appropriate, progressive, and may be reasonably implemented by the Water Authority and its member agencies.
G.	Ensure the public, along with state agencies, are kept informed of regional supply conditions and likelihood of shortages through preparation of annual water supply and demand assessments.

WATER USE EFFICIENCY	
H.	Implement best-practices to manage and deliver water-use efficiency programs and services in a timely, convenient, and courteous manner.
I.	Plan, develop, implement, or administer water efficiency programs and tools that meet the needs of member agencies and water users.
J.	Support policies and actions that advance long-term water-use efficiency best practices, behaviors, and market transformations.
K.	Leverage ratepayer investments by securing grants or other external funding sources and advocating for equitable benefits from MWD water-use efficiency programs.
L.	Advocate for long term water use efficiency policies that benefit the San Diego region.

Water Facilities Infrastructure/CIP | Management Strategies

ASSET MANAGEMENT	
A.	Ensure prioritization, optimal maintenance, and rehabilitation of assets.
B.	Pioneer and utilize new and innovative technology to reduce risk and increase productivity and efficiency.

INFRASTRUCTURE PLANNING	
C.	Coordinate and align project scope and schedules within the Master Plan Update and the Asset Management Program to achieve the optimal balance between regional water reliability and cost.
D.	Optimize use of existing treatment, storage, and conveyance facilities to meet projected member agency water demands.

NEW FACILITIES	
E.	Employ pioneering technology, innovation, and best management practices for all Capital Improvement Program projects.
F.	Develop innovative business policies, practices, and procedures that are aligned with smaller contracts.
G.	Collaborate with member agencies and other external stakeholders on the Capital Improvement Program.
H.	Coordinate with internal functional groups and stakeholders to promote the most efficient and cost-effective delivery of projects.

Water Facilities Sustainability | Management Strategies

CLIMATE CHANGE	
A.	Implement cost-effective measures that reduce greenhouse-gas emissions in compliance with emission targets contained in the Climate Action Plan.
B.	Advance climate science research and mainstream adaptation strategies into business practices.
C.	Ensure resiliency of infrastructure and supplies in response to climate change impacts.

ENVIRONMENTAL MANAGEMENT	
D.	Incorporate advanced planning to ensure Water Authority compliance with environmental regulations.
E.	Strengthen inter-departmental coordination of environmental compliance.
F.	Ensure sustainable mitigation is obtained in advance of project needs.

ENERGY INITIATIVES	
A.	Leverage power market opportunities that maximize the value of existing energy facilities.
B.	Pursue new energy initiatives that reduce energy costs.
C.	Develop updates to the 2013 Board adopted Energy Management Policy.
D.	Coordinate with local, regional, state and federal agencies to best position Water Authority energy purchases.
E.	Influence energy rule-making by engaging in legislative and regulatory processes.

FACILITIES SECURITY AND EMERGENCY RESPONSE	
F.	Provide necessary facilities, staffing, and funding to support security and emergency response requirements.
G.	Comply with applicable state and federal regulations regarding security.
H.	Engage in water related security and emergency response issues at the local and national levels.

OPERATIONS AND MAINTENANCE	
I.	Maintain water system reliability and efficient operations through staff development and facility improvements.
J.	Enhance proactive maintenance practices.

Business Services BUSINESS SUPPORT | Management Strategies

CYBERSECURITY		IT SERVICES AND OPERATIONS		FACILITIES		ADMINISTRATIVE SUPPORT	
A.	Provide back-up and recovery capability to protect data and critical information systems for business continuity.	D.	Maintain and upgrade critical software and business applications and hardware to meet business needs.	G.	Implement measures that maintain or enhance a safe, secure and productive working environment.	I.	Obtain cost-effective business insurance policies that appropriately manage risk and support evolving business needs.
B.	Implement cybersecurity measures to provide a safe and secure computing environment.	E.	Continually improve business processes by increasing automation, flexibility, ease of use, and mobility.	H.	Improve the efficiency of water and energy use at the Kearny Mesa Headquarters to reduce long-term costs and conserve resources.	J.	Maintain and upgrade records management practices and electronic document management systems.
C.	Educate employees to be technically skilled, well informed, alert, and vigilant.	F.	Upgrade, enhance, and support critical software applications to leverage new functionality, maintain compliance and compatibility, improve productivity and promote timely and informed decision making.			K.	Support and improve tools and processes that enhance business efficiency and productivity.

GOVERNMENT RELATIONS OUTREACH	
A.	Strengthen relationships with the San Diego local, state, and federal legislative delegations, other key legislators, legislative staff, and the state and federal administrations.
B.	Engage and influence relevant legislation, regulatory matters, and funding requests in the Legislature, Congress, and state and federal administrations.
C.	Sponsor and promote legislation that positively impacts the region and conveys San Diego's role as a statewide water community leader.

PUBLIC OUTREACH	
D.	Enhance public understanding and support for Water Authority and member agency strategies, policies, and programs.
E.	Implement innovative and effective public outreach programs and tools that deliver Water Authority messages to key stakeholders.
F.	Promote greater public awareness of local water issues and wise water use by building relationships and partnerships with compatible organizations and institutions.

REGULATORY POLICY SUPPORT	
G.	Maximize flexibility and sustainability in water supply development and management, water-use efficiency, and water quality protection.
H.	Foster collaborative relationships with regulatory agencies.
I.	Engage in policy and regulatory development under local, state and federal water, energy, and environmental laws.
J.	Inform and obtain feedback from Water Authority departments and member agencies on regulatory and permitting issues.

Business Services FINANCIAL MANAGEMENT | Management Strategies

ACCOUNTING	
A.	Provide relevant, accessible, and usable financial data and other key information.
B.	Analyze revenue and expense trends proactively to anticipate early budget variances and formulate actions to ensure fiscal sustainability.
C.	Assess and recommend as appropriate industry best practices and new accounting standards for applicability to Water Authority financial operations for enhanced financial reporting.

DEBT AND INVESTMENT MANAGEMENT	
D.	Ensure Water Authority credit ratings through sound financial management.
E.	Ensure strong financial industry presence for the Water Authority.
F.	Strategically optimize the resources of the debt and investment portfolio to execute future bond and investment transactions successfully.
G.	Optimize the capital financing mix to achieve the lowest cost of funds and minimize interest rate risk.

FINANCIAL PLANNING	
H.	Develop detailed cost projections for Capital Improvement Program projects and operations to develop long-term rate projections.
I.	Analyze and recommend an updated rates and charges model resulting in the goals of cost efficiency, predictable rates, and intergenerational equity.
J.	Provide high level of service to member agencies while ensuring equitable rates and charges.
K.	Ensure financial policies are aligned with the long-term fiscal sustainability of the Water Authority.

Business Services WORKFORCE MANAGEMENT | Management Strategies

LEADERSHIP	CULTURE	COMMUNICATION
A. Strengthen leadership capabilities and capacity to encourage performance excellence and productivity.	B. Foster a positive culture by developing policies, programs and practices that support the employees' physical, social, and mental well-being; and facilitating learning through professional development, career agility, and knowledge transfer.	C. Maintain open and effective communication that addresses the changing dynamic of the workforce.

TALENT	TECHNOLOGY
D. Creating an integrated systems approach to Talent Management better enables the organization to meet the evolving needs of the agency and the workforce of the future.	E. Evaluate and facilitate tools that will streamline processes and provide more relevant and effective information.

This page intentionally left blank